S. HRG. 107–312

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

ON

H.R. 2330/S. 1191

AN ACT MAKING APPROPRIATIONS FOR AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES PROGRAMS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2002, AND FOR OTHER PURPOSES

Commodity Futures Trading Commission
Department of Agriculture
Department of Health and Human Services: Food and Drug Administration
Farm Credit Administration
Nondepartmental witnesses

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AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

WEDNESDAY, APRIL 25, 2001

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 1:35 p.m. in room SD–138, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Bond, Craig, Kohl, Harkin, Dorgan, Durbin, and Johnson.

DEPARTMENT OF AGRICULTURE

OFFICE OF THE SECRETARY

STATEMENT OF HON. ANN M. VENEMAN, SECRETARY OF AGRICULTURE

ACCOMPANIED BY:

KEITH COLLINS, CHIEF ECONOMIST

STEPHEN B. DEWHURST, BUDGET OFFICER

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. The committee will please come to order. It is my pleasure to convene in our first hearing of the year, and to welcome to the subcommittee having jurisdiction over the Department of Agriculture and Related Agencies budget for fiscal year 2002 the new Secretary of Agriculture, Ann Veneman. We appreciate the cooperation of you and your staff in our review of the President's budget that has been submitted to the Congress for its consideration.

We notice that you have accompanying you today Keith Collins, the Department's chief economist, and Stephen Dewhurst, who is the budget officer for the Department. I have had an opportunity to review your prepared statement, which I appreciate your submitting to the committee, and an outline of the President's budget request for the Department of Agriculture and the other agencies that come within the jurisdiction of this committee.

I think there is a compliment that is deserved at this point, and that is that in this submission there is a proposal to increase funding to cover mandatory pay increases, and to continue essential investments in technology that are important to the effective and efficient operations of all agencies of the Department.

The budget maintains staffing levels for essential agency functions, and it also requests resources to support nutrition assistance programs to protect the safety of our Nation's food supply, to support agriculture trade initiatives, to deal with emerging pest and other challenges to agriculture and our food supply. Most of these proposed increases are offset by proposed reductions in some ongoing programs and other congressionally mandated additions to the budget.

We know we have some new challenges that are being faced by this Department, and your statement touches on them. Bovine Spongiform Encephalopathy, better known as mad cow disease or BSE, and the recent outbreak of foot and mouth disease in Europe, which poses threats not only there but probably around the world, requiring new initiatives and vigilance and efforts to make sure that those problems don't occur here.

We look forward to discussing that with you as we review the Department's budget today, and we encourage you to provide us with whatever additional comments you think would be helpful to our understanding of this budget request.

I am happy now to yield to our distinguished Ranking Member, my good friend from Wisconsin, Senator Kohl.

STATEMENT OF SENATOR HERB KOHL

Senator KOHL. I thank you so much, Senator Cochran. It is good to join you and all members of the subcommittee as we begin work on the agriculture appropriations bill for fiscal 2002. I would also like to recognize our two newest members, Senators Johnson and Craig.

Secretary Veneman, I especially want to welcome you, along with Mr. Collins and Mr. Dewhurst. It is good to have all of you here, and I look forward to your comments. Every year, it seems, we talk about the current crisis facing American agriculture. Unfortunately, this year is no different. Commodity prices remain at historic lows. Devastating animal disease is loose in the world and threatens our shores, recurring drought has again gripped the south and, as we speak, flood waters continue to consume farmland in Wisconsin and throughout other Midwestern States, and this is only April.

The President's proposed USDA budget provides $72 billion in appropriations for fiscal year 2002. That is a reduction of $563 million from last year's appropriated level, without even counting emergency funds enacted last year. Of the total proposed, $14.1 billion is discretionary spending. While the President has claimed to hold overall spending to a 4.4 percent increase, it appears that USDA programs have been held to a lower position of importance within Government than other areas. This is a fact I find troubling, given the wide range of issues now facing the rural sector.

While I agree that meaningful income tax relief is very important, farm income tax relief presumes that there is farm income to be taxed, and an estate tax relief may benefit a handful of individual farmers but would have very limited effect on the overall farm sector.

On the other hand, the programs funded by this subcommittee, such as research, conservation, marketing and others, do provide

all farmers with tools that can help raise farm income and help farmers withstand the misfortunes of nature and disrupted markets. A 4.4 percent increase would be modest indeed, and a reduction would be disturbing.

I note the Secretary's commitment to open markets and the need to tear down trade barriers. I applaud that commitment and hope it applies equally to domestic as well as foreign markets. Today in this country, a regional market barrier has been built that puts Wisconsin and other States' dairy products at great risk. This is an unacceptable situation, and I fully expect the USDA to support all U.S. agriculture and work to tear down all trade barriers, foreign and domestic.

The President's budget also provides $36.6 billion for USDA nutrition programs, the largest single area of spending in the USDA budget. These important programs provide a safety net for the most vulnerable children and adults and, while most of them involve mandatory spending, it is important to remember that they are subject to appropriations and the scrutiny of this subcommittee. Whether the issue is the nutritional quality of a school lunch or the level of WIC participation, this subcommittee is charged with the responsibility to ensure that every American shall have access to a healthy meal.

So Mr. Chairman, I thank you for your leadership and your assistance. I look forward to working with you and all members of the subcommittee this year as we review the President's budget and set priorities based on the real needs of rural America.

Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Kohl.

Senator Bond.

STATEMENT OF SENATOR CHRISTOPHER "KIT" S. BOND

Senator BOND. Thank you very much, Mr. Chairman, and Secretary Veneman, it is a pleasure to welcome you to the subcommittee. One of the most important ingredients of being a good Secretary of Agriculture is timing, and with prices now in the tank you have got a real opportunity to be the true heroine for agriculture if they just turn around, so the Secretaries may or may not have an ability to impact farm income, but unfortunately you always take the blame, and so there is opportunity and there is hope ahead.

The critical ingredient to success, however, is a willingness to use your position forcefully as an advocate for farmers, and that will mean keeping your eye and a hammer on other agencies who don't always have the best interests of farmers at heart, and keeping your eye on our friends at OMB who are sometimes accused, fairly enough, I would say, of knowing the cost of everything and the value of nothing. A lot of people have a high regard for your understanding of and commitment to trade expansion, and yesterday you and I discussed the promise that plant biotechnology holds in improving human health, the environment, diversifying ag uses, and improving production for the hungry in the world.

U.S. Agency for International Development had a group of scientists from Kenya, South Africa, Uganda and elsewhere in town yesterday to discuss the critical need to make new technology avail-

able to the poor, the sick, and the hungry in impoverished regions of Africa. It is clear to me that, while the wealthy, well-fed in Europe want a technology-free zone in Europe, the impoverished, hungry people in Africa are anxious to have the benefits that science can bring to them.

I have also taken a number of trips to Southeast Asia. They are particularly interested in trade and technology, and I hear more and more people say that, while we don't want to ignore Europe entirely, time will be spent much better on focusing on Asia, Latin America, and Africa, where our markets may be the most productive. If Europe wants to be isolated and cultivate more hysteria and nonsense than farmland, then we ought to look at regions that value science more than politics.

I do have one parochial issue. It is a favored farmer and environment-friendly program called Agroforestry. This subcommittee has funded research for a number of years, and while I know you will be a strong supporter of Agroforestry and its multiple benefits for farmers and the environment, for cleaning of the waters of our Nation, it is identified in the budget for a rescission.

Now, we go through this exercise every year with OMB, but since I have a better understanding of what may be your priorities and perhaps the President's than OMB does, I am certainly going to urge the chairman and the Ranking Member to reject the proposal for a rescission.

Finally, while you are in great demand, I do want to call your attention to an invitation you have received to attend the World Agriculture Forum taking place May 20 through 22 in St. Louis, Missouri. There will be a number of world leaders, including heads of State, deputies, ministers of agriculture chief executive officers, scientists, farmers, and others, and I hope you can look at that invitation and see if you will take advantage of that opportunity.

Since I have imposed upon the goodwill of the chairman and the Ranking Member and the committee members, I will extend to all of you an invitation to join us in St. Louis to talk about agriculture and world trade in agriculture May 20 through 22.

Thank you.

Senator COCHRAN. Thank you, Senator Bond. In recognizing Senators alternatively, one side of the aisle to the other, in the order in which they attended the hearing, I would now recognize Senator Johnson for any opening statement he may have.

STATEMENT OF SENATOR TIM JOHNSON

Senator JOHNSON. Well, thank you, Mr. Chairman, and Senator Kohl, I appreciate this opportunity to serve on the Appropriations Committee, on the Agricultural Subcommittee in particular. I look forward to working with the leadership of the committee and all members. This is of immense importance to my home State of South Dakota and, I think, to the Nation at large.

As a new member, I will focus a lot of my time to learning and listening, but I do very much appreciate this opportunity to participate in this hearing. I want to welcome Secretary Veneman to this hearing as well. Ms. Veneman is known as a Californian, but we in South Dakota claim some credit as well, as her Dutch ancestors homesteaded in Charles Mix County in South Dakota. There are

not a lot of peaches being raised in South Dakota, as there are in California, but we are proud to have that claim to Ms. Veneman's heritage.

I look forward to the testimony today on a range of issues. Obviously, tax relief is a matter of significant importance to us all, but it is also important that it be balanced with the needs to address other key priorities in this Nation, among them, agriculture and rural America, food safety, rural development, conservation, and other high priorities that I think people, rural and urban alike, share a concern for.

I am somewhat concerned about the reductions in conservation efforts at USDA, and I look forward to your testimony in that regard, as well as I am concerned about funding levels for our antitrust and concentration efforts at USDA.

One area that I have a parochial concern as well, although not entirely just for South Dakota, has to do with the status of our CRP wetlands six-State pilot project, which has had bipartisan support, would utilize the CRP in a fashion which would address some of our wetlands controversies we have had in the prairie pothole region in particular. The rule has not yet been published, and it is imminent. Our farmers across the six States of the Northern Plains are looking forward to that as an additional tool.

PREPARED STATEMENT

It is a proposal that was put together by a group of some 30-plus rural and agricultural organizations in South Dakota as part of an out-of-court settlement. Any time you can get the Sierra Club, the Farm Bureau, and the Farmer's Union all to agree on a conservation initiative of this sort, I think we ought to move forward with it, and it is my hope that we can work with the Secretary to get those proposals published in the very near future.

So again, I welcome the Secretary to the committee, and look forward to my participation on this subcommittee.

Senator COCHRAN. Thank you, Senator Johnson.

[The statement follows:]

PREPARED STATEMENT OF SENATOR TIM JOHNSON

Thank you Chairman Cochran, Ranking Member Kohl and members of the subcommittee, it is an honor to participate in my first appropriations subcommittee hearing on agriculture. I am pleased by the reception that my colleagues on this panel have extended to me, and I look forward to working with all of you to complete work on a thoughtful, balanced budget for the United States Department of Agriculture (USDA), and the many important programs under the jurisdiction of this subcommittee.

I also thank Secretary Ann Veneman for offering testimony on USDA's proposed budget for fiscal year 2002, and I look forward to working with her to assure this subcommittee provides the investments necessary to keep rural America strong, now and into the future. Madam Secretary, I enjoyed meeting with you in January—prior to your confirmation by the Senate Agriculture Committee—and I expect to follow-up with you today on some of the issues and priorities we discussed at that time. Mr. Chairman, I want to make a special note at this point that while Senator Feinstein may take great pride in the fact that our new Secretary of Agriculture is indeed from a California peach-growing region, I am proud that Secretary Veneman has South Dakota ties too. In fact, her Dutch ancestors homesteaded in Charles Mix County near Platte, South Dakota. That was a long time ago, and there's not much peach growing in Charles Mix County, but nonetheless, we're proud of her connection to our South Dakota. Finally Madam Secretary, I again in-

vite you back to your ancestral State, where we can discuss issues of importance to South Dakota's farm families and rural communities.

Regarding USDA's budget proposal for fiscal year 2002, I appreciate the President's desire to fund national priorities in a restrained way so as to provide significant tax relief to America's working families. I too am on record in support of a significant tax cut. Yet, we must address the budget and tax cut in a balanced fashion, assuring efforts are made to pay down the federal debt and fund key programs—such as agriculture, conservation, rural development, and food safety just to name a few—which are essential to the well-being of our country.

In an initial analysis, USDA's proposed budget adequately addresses some of our agricultural, trading, and food safety priorities. Yet, I believe it fails to make some specific and significant investments in a secure farm safety net, conservation programs, efforts to restore marketplace competition, and rural development.

Moreover, despite the fact that over 20 major farm and commodity groups in the country—from Farm Bureau to Farmers Union, and including cattlemen, pork producers, corn, wheat, dairy, soybeans, cotton, rice, sugar producers, and others—have asked for increased support for a new farm bill and additional emergency aid for farmers and ranchers at levels similar to that of last year, the proposed USDA budget includes no support for a new farm bill or room for emergency aid—save the so-called contingency reserve. We will discuss this specific issue in greater detail at next week's subcommittee hearing on the farm economy and assistance for farmers and ranchers. Yet, our past experience of enacting multi-billion ad hoc emergency bills, while ignoring even modest changes to the farm bill, has proven costly to taxpayers, unpredictable for farmers, and not sustainable nor responsible in terms of long-term policy. That said, I am disappointed that USDA's budget does not include funding for a new farm bill that will ensure economic security for family farmers, ranchers, and rural communities now and into the future. I look forward to working with you, Madam Secretary, and the members of this subcommittee to help develop an adequate disaster bill for 2001 and sustainable new farm bill.

I am specifically concerned about the cuts or elimination of funds in fiscal year 2002 for important conservation programs such as the Wetlands Reserve Program, the Wildlife Habitat Incentives Program, and the Emergency Conservation Program. Farmers, other landowners, and society as a whole continue to desire more options to ensue the proper stewardship of our nation's soil and water resources. With agricultural conservation programs oversubscribed by nearly six times the available funding, this is clearly the wrong direction to take with conservation funding, and I plan to work in the subcommittee to secure funds that promote greater use of conservation programs instead of cutting or eliminating them altogether.

Madam Secretary, we have visited about a new pilot program I pushed last year to enroll farmed wetlands in the continuous Conservation Reserve Program (CRP)—which was enacted with some help from Senators Harkin, Kohl, Cochran, and Daschle. This two year pilot program was created by farmers and conservationists in South Dakota, and it would permit up to 500,000 acres of farmed wetlands to be enrolled under CRP in six states of the Prairie Pothole Region. Unfortunately, the rule to begin the process for farmers to sign-up for the program has yet to be published in the Federal Register. While the severe and wet weather in South Dakota and other reaches of the country have delayed planting decisions and inadvertently could permit some to enroll in this program, further procrastination on the finalization of this rule will only hurt the chances for this program to succeed. I urge you to work with the appropriate agencies within USDA to ensure the rule for this CRP-wetlands pilot project is published in the Federal Register and that sign-up commence as soon as possible.

On the other hand, I wish to thank you Madam Secretary for the steps you've taken within USDA to prevent outbreak of diseases such as Bovine Spongiform Encephalopathy (BSE) or "mad cow" disease and Foot and Mouth Disease (FMD) in the United States. Only three states raise a more sizable calf crop than that reared by South Dakota's cattle ranchers. Livestock production and processing contributes over $3 billion to South Dakota's economy each year. An outbreak of either disease would have crippling consequences for the hard-working families raising cattle, sheep, and hogs in South Dakota. Under your leadership, USDA currently enforces a ban on the import of ruminant animals and animal products (primarily beef-based) into this country, and you've taken steps to ban the import of all animal and animal products from the European Union (EU), in response to the spread of FMD. Moreover, under the leadership of Chairman Cochran, the fiscal year 2001 Agriculture Appropriations bill provided USDA with $85 million for preventative animal health monitoring and surveillance operations in the U.S.

In the context of the appropriations process, I believe this subcommittee may need to plan to provide additional funding both in fiscal year 2002—and potentially accel-

erated funding this year—for APHIS, the Food and Drug Administration (FDA), and other appropriate federal agencies that must work to prevent FMD and BSE outbreaks in the U.S. I have already met with FDA officials to discuss these issues, and look forward to Secretary Veneman's views today.

I am pleased that USDA's budget request for fiscal year 2002 increases funding for disease prevention. In fact, you seek to increase the Animal and Plant Health Inspection Service (APHIS) budget by $174 million from fiscal year 2001, up to an $849 million total for fiscal year 2002.

This should authorize additional resources to increase inspection personnel that protect against animal and plant diseases like FMD at major U.S. ports of entry. Specifically, USDA can hire approximately 350 additional personnel at critical ports and international airports to protect against pests and diseases. I am equally pleased with your requested $13 million in additional program support to strengthen the Agriculture Quarantine Inspection Program (AQI), which helps protect the U.S. against animal diseases like FMD and BSE. Finally, in regards to increases in Agricultural Research Service (ARS) efforts to prevent diseases, I support your request for an increase of $5 million for BSE-related research.

In addition to greater investment in USDA disease prevention efforts, I have encouraged my Senate colleagues and you, Madam Secretary, to consider S. 280, my bipartisan legislation calling for beef, pork, and lamb country-of-origin labeling. This bill, the Consumer Right to Know Act of 2001, ensures that consumers have knowledge about the true origin of the meat they feed their families. The legislation provides consumers with the confidence that meat products labeled as originating from the U.S. are, in fact, from animals born, raised, and slaughtered in the U.S.

While I would not suggest that my bill is necessary from a food safety standpoint (because the majority of current live animal and meat imports meet U.S. inspection and safety standards), I would assert that my legislation would empower consumers to make informed choices about meat products. Furthermore, I would observe that the pure standard in my bill for defining a meat product as being from the U.S. would reward domestic producers for their herd health and production practices, capitalize upon current USDA and FDA safeguards, and help prevent unwarranted consumer fear about U.S. meat.

We cannot underestimate the need to be very vigilant about the health of domestic livestock herds and the safety of domestically produced meat. I look forward to working with both of you to ensure Congress takes the appropriate measures this year to deal with FMD and BSE prevention, surveillance, monitoring, and control operations.

Rural Development (RD) initiatives provide incentives for the creation and expansion of value-added agricultural ventures in South Dakota, and help furnish critical infrastructure and telecommunications support to rural areas of our country. I am concerned by the $2.5 billion cut to RD programs within USDA's budget. Because rural America depends upon a diverse economic engine to run smoothly, I am hopeful this subcommittee will work to restore funding to some of the key RD programs this year.

In concern to investments in Cooperative State Research Extension and Education Services (CSREES), the partnership between USDA and our land-grant university system is one of the most important investments we can make to ensure a strong rural America. In South Dakota, South Dakota State University (SDSU) and the Cooperative Extension Service are efficiently and effectively capitalizing upon the federal CSREES funds allocated to them to invest in educational opportunities for young people, to ensure a dependable food supply, to foster economic development, and to promote sustainable agricultural production while protecting our soil and water resources all at the same time. While USDA's proposed (CSREES) budget maintains formula funds at $544 million—imperative to SDSU because these funds comprise thirty-eight percent of our extension service budget—I will be supporting an increase of $200 million in the CSREES budget to invest in student learning, a dependable food supply, rural community economic development, and sustainable agricultural production.

This increase is necessary to build upon the success stories told time and time again in South Dakota and across the country, and I'd like to cite just two of many examples in my State.

In South Dakota, these formula funds allow for a program entitled "Putting Youth Back in Sports" that teaches sportsmanship, honesty, and fairness to young people involved in athletics and other extra-curricular activities. This innovative program also addresses the role parents and other adults play in serving as responsible role models, therefore "Putting Youth Back in Sports" works with parents, teachers, coaches, and others to ensure everyone knows how to be a "good sport." As a result,

nearly 10,000 people in South Dakota completed this program last year, and SDSU has been invited to bring the program to Penn State.

Additionally, CSREES funds allowed SDSU to establish a Standardized Performance Analysis (SPA), a record keeping analysis for cow-calf ranchers in South Dakota. This SPA permits individual ranchers to calculate operational costs on a per-cow and per-calf basis, and as a result, identify a specific break-even value allowing ranchers to take steps to reduce costs and increase potential profit-making opportunity.

These and many other innovative programs benefit from CSREES funds, which promote projects in South Dakota that serve it's citizens through and educational process that helps them improve their lives by applying unbiased, scientific knowledge focused on needs and issues. That is why I will support an increase for fiscal year 2002. Thank you Mr. Chairman, this concludes my opening statement but I look forward to addressing Secretary Veneman with some questions in relation to these and other matters.

STATEMENT OF SENATOR LARRY E. CRAIG

Senator COCHRAN. Senator Craig.

Senator CRAIG. Mr. Chairman, thank you very much. Secretary Veneman, thank you for being with us today. I look forward to your testimony. I read your prepared remarks. You have just returned from Quebec and I have just returned from Brussels. You engaged Brazil and Argentina in discussions dealing with their extended agricultural capabilities, and I engaged Fran Krischler, the EU's ag minister.

Out of those two conversations, I suspect we in this country have got to decide where we're going to go with agriculture as it relates to what our public policy will be in the near and the long term. We are going to start looking at that soon, and I would suggest that we will find it extremely difficult to continue to simply serve an ag policy, which means write a check to every producer and make it larger every year so that they can balance the books. That will not continue to work, and somehow we have got to wrestle our way out of that.

I think that Senator Dorgan and I had a rather interesting awakening a a few years go when, as cochairs of the WTO Caucus, we engaged a fellow by the name of Pascal Lame, and after we had roughed him up for a bit he looked us all in the eye and chuckled a bit, and he says, you do not understand us, do you. We in Europe have decided to protect the pastoral beauty of our agricultural landscape, and therefore we will provide for our farmers and we will pay them directly for that purpose. We believe it is good social policy in Europe, so the only thing that you have left for us to debate is the subsidy that we may or may not do as it relates to moving product into the world market.

In other words, he said, hands off our domestic policy. We have made our decision. I think that is changing now in the EU as new countries come in and those countries come with a large agricultural portfolio.

At the same time, it is without question going to be demanding of us to look into our crystal balls and decide how we are going to deal with agricultural policy in this country as it relates to a producer-producer relationship, and certainly the well-being of our country and our consumers. I don't have an answer to that, and my guess is you probably don't, either, but maybe collectively in the next year we will work that out.

In the meantime, we need to continue a level of support for agriculture that at this time is at or below break-even, depending on the specific commodity, few of them above that line, and all of that extremely important to individuals within the industry itself, but collectively to our States and to our country.

I look forward to your testimony. More importantly, I look forward to working with you in the long-term as we wrestle through these issues.

Thank you.

Senator COCHRAN. Thank you, Senator Craig.

Senator Dorgan.

STATEMENT OF SENATOR BYRON L. DORGAN

Senator DORGAN. Mr. Chairman, thank you very much, and again, Mr. Chairman, thank you for convening this hearing. Madam Secretary, thank you for being here, and welcome.

Abraham Lincoln created what is now the U.S. Department of Agriculture, with nine employees back in the early 1860's. I understand we now have more than 97,000 employees, including the forest service, some 35,000 plus in the forest service. My feeling is, the only reason to have a Department of Agriculture is to preserve the network of family farms in this country.

I would prefer to use the term family farmer than just, quote, agriculture, unquote, because I think corporate America would farm America from coast to coast, given their own interests. I am interested in preserving the network of family producers in this country, and if we are not about doing that, then as far as I am concerned we probably could shut down USDA. If we want to do that, let us have an operational statement that our goal is to create, or rather to preserve, a network of family producers in this country on rural lands.

My colleague from Missouri mentioned timing, and certainly timing is important. There is an old story about a Cherokee Indian chief who said, the success of a rain dance depends a lot on timing. I suspect that is true, and it is certainly true, perhaps, with the stewardship of the Secretary of Agriculture. It is also true that initiative is critically important. The question for us is, do we have good intentions, number 1, and number 2, are we pursuing good policy?

Our family farmers are in some very serious trouble, and have been for some long while. The current farm program was written when the price of wheat was over $5 a bushel. It collapsed quickly, and every single year we have had to play catch-up with some emergency help.

Last week, I was in Stanley, North Dakota. A young high school boy who had written me a letter came up and introduced himself and asked if I remembered him. I said I did. He wrote me a plaintive letter saying, I live on the farm with my family. He said, my dad can feed 180 people, and he can't feed his family. I told him that, I remember that letter. That is not a letter someone would easily forget. But he was describing the difficulty of trying to operate a family farm when prices for that which they produce are so far below their cost of production.

This budget that we're talking about is far short of what is needed. It is not reflective of what we need. We need to write a new farm program, and then we need to fund a countercyclical program in the farm program that will help family farmers when times are tough.

We also need to target that help. I do not want to see stories on television about the millions and millions of dollars we give to the largest producers in America. That does not make any sense. Corporate agrifactors will do just fine, thank you. They have got plenty of financial strength to do so.

But I look forward to working with you on a range of these issues. I would say I support expanded trade, but I do not think we are going to trade our way out of this problem. I support tax incentives that are well-constructed, but I think my colleague, Senator Kohl, said it correctly. The fact is, the tax breaks are not going to help a whole lot if you do not have income, especially income tax breaks do not help much if you do not have income. We need to work together and find a way to decide whether we have, as an operational statement for describing the purpose of USDA, that we want to preserve a network of family farms in this country's future.

If we do that, if we decide that is a goal, then let us work together to make that happen with a farm program that finally works. If not, maybe we ought to close the doors down there and save some money.

PREPARED STATEMENT

I do not mean to end this on a down note. I think there is plenty of hope if we work together, and if we are willing to find the resources to try to preserve our family farmers. It is not the case that they are like the little old diner that is left behind when the interstate came through and all that is left is some nostalgia about what was the part of our culture. They are an important part of this country and an important part of its future, but they will not be around unless we take affirmative action and the right initiatives and the right policy courses.

Mr. Chairman, thank you very much.

[The statement follows:]

PREPARED STATEMENT OF SENATOR BYRON L. DORGAN

Mr. Chairman, today this Subcommittee begins to officially scrutinize the United States Department of Agriculture budget that the President released a couple of weeks ago. Quite frankly, I am very disappointed that the President has targeted the Agriculture budget for some of the largest spending cuts in his overall budget—cuts that we all know are mainly necessary to pay for his massive tax cut. All of us involved in Agriculture recognize the bleak economic climate in rural America. We can all agree that this segment of the national economy did not fare all that well in the last decade.

Commodity prices collapsed four years ago and have remained stagnant ever since. Repeated weather disasters have ravaged the nation from coast to coast. Even now, the upper Midwest river systems are flooding while news reports tell us daily about water shortages and drought in Florida and the Western United States. Few would deny that family farmers and those whose businesses are dependent on them in rural America continue to face tough economic circumstances right now, and are in no shape to be neglected by USDA.

Put bluntly, the conditions—low prices and adverse weather—that warranted three emergency farm assistance packages totaling $25 billion these past three years are still in place. USDA's Chief Economist recently stated that net cash farm

income for 2001 will plummet $4 billion below the average of the 1990's if no emergency help is enacted.

Despite this fact, the Administration has proposed a budget for USDA that drastically curtails expenditures. Tax relief for farmers is touted as a benefit that will more than compensate agriculture for this neglect.

However, to have a tax problem requires income, and most American farmers are suffering from a lack of income. Tax breaks are not a replacement for sound farm policy. To be more specific, collectively since 1980, deductible farm expense has exceeded farm income which means that the nation's farmers as a whole had a net taxable "loss" for the 20 year period. Recent tax records show that seventy-three per cent of farm sole proprietors either reported a farm loss or have no federal income tax liability. To say that farmers ought to blindly support the Administration's fiscal year 2002 USDA budget proposal because they have a "stake" in the overall budget objectives of the President—mainly his tax cut—is stretching things just a bit.

The Administration has proposed deep cuts in conservation and foreign food aid budgets. The program levels for rural development and research will also be significantly reduced under the Administration's recommendation. They remain silent about any need for emergency assistance for family farmers should commodity prices remain stagnant at these collapsed levels or weather disasters continue to plague the countryside.

USDA's proposed budget is naive in that it proposes to ignore the economic realities of rural America. Economic forecasts for agriculture remain bleak for the 2001 growing season and beyond due to the continuation of collapsed commodity prices, while input costs—most notably fuel and fertilizer—skyrocket. If we fail to offer adequate support for agriculture, massive farm failures will surely occur. Such failures would cripple rural America's economy and could further dampen the general economy, something we must prevent during this time of national economic uncertainty.

I am confident my colleagues will agree with me and that this Subcommittee will address the inadequacies of the Administration's proposed USDA budget for fiscal year 2002.

STATEMENT OF SENATOR RICHARD J. DURBIN

Senator COCHRAN. Senator Durbin.

Senator DURBIN. Thank you, Mr. Chairman, Senator Kohl, and my colleagues. Secretary Veneman, welcome to the hearing. I am glad to see you are joined by two stalwarts, Mr. Collins, who has served as an economist for a long time—I have known him since my days in the house—and Steve Dewhurst, who I think started in the early Grover Cleveland administration——

Senator DURBIN.—He has continued on with distinction every single year. You are lucky to have to two of them by your side.

Madam Secretary, I would like to follow through with a comment as well about the emergency situation we face. We have faced emergency assistance for farmers for the last several years that has literally meant whether or not those farmers survive or not. In Illinois and across the farm belt the Federal payments have accounted for half the net farm income. The farmers literally would not have survived without it.

Now, on top of that, Mother Nature has thrown us another challenge with the flooding in the Midwest. I was on the phone a few minutes ago with Joe Allbaugh of FEMA who is on his way to Illinois. Over 28,000 acres have been flooded now, and will be affected in terms of crop planting.

I would like to issue a personal invitation to you, Madam Secretary, if you would consider it, to come to Illinois and come to the flooded areas to meet with the farmers and farm families. There are some important questions they would like to ask of you, of the administration, concerning their future. They took a look, or at least their farm organizations have taken a look at the proposed budget and are concerned as to whether or not there has been a

sufficient amount of money set aside for emergency purposes. There is an inadequate amount from where I am sitting, but perhaps there is another view of this. We would like to offer you the opportunity to come and speak to that.

Second, I would like to say that I noted in many of the introductory comments here how often the issue of food safety has come up. It is interesting, in a country with the safest food supply in the world, that we want to do better, and we are conscious of challenges that other countries and other people are facing.

I have introduced three pieces of legislation. I would like to ask your Department to review and see if you might support. One of them relates to the whole question of the food that is being imported into this country, the National Food Security and Safety Act, to strengthen our national defenses against mad cow disease and related threats. It uses sound science, and I hope good common sense, to make our borders more secure, improve our surveillance activities, and remove from the food supply for humans any animals, some animal-derived materials that could potentially spread mad cow disease.

I am also working on the Genetically Engineered Foods Act. I noticed last night, perhaps you saw it, Frontline had a program relative to this whole issue of biotech, which is extremely controversial. Senator Bond has been a leader in speaking out on this, as others have. We want to make certain that we have the safest food supply and use the best science to not only feed America, but to feed the world.

Finally, I would like to commend to you a position that was taken by President Bush during his campaign but not by the Democratic candidates. It was a position that I have been espousing for some time, and it addresses the fact that we currently have Federal food safety fragmented in 12 different Federal agencies with 35 different laws and 28 different House and Senate subcommittees with jurisdiction and oversight. Is it any wonder that we have conflicting, overlapping, and oftentimes amusing contradictions in the law when it comes to the safety of our food?

This administration I think can make history by finally bringing together all of the different food safety aspects of the Federal Government into one scientifically driven agency that will combine the mission of food safety so that people across America and around the world know that we are absolutely doing our very best. I have been working on this for several years, and I would be anxious to work with you on that in the future.

PREPARED STATEMENT

The last point I will make is this. It is more global. After our visit to Africa a little over a year ago, I came back absolutely overwhelmed with what I had seen with the AIDS epidemic, and I am heartened by comments from my colleagues like Senator Frist and others, Senator Lugar, who believe, as I do, that with the largesse in the United States we have an opportunity and an obligation to try to help those in other countries who are braving this type of epidemic and other health problems. I hope that we can find ways to work together to expand our assistance in this area.

I thank you for joining us.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD J. DURBIN

Chairman Cochran, thank you for holding this important hearing today. I look forward to working with you, Senator Kohl, and my Subcommittee colleagues on the fiscal year 2002 (fiscal year 2002) Agriculture Appropriations bill.

Mr. Chairman, I would like to welcome USDA Secretary Ann Veneman to the hearing this afternoon. Although she may be a new secretary, she is not new to USDA or to agricultural issues. I enjoyed working with her during her stint as Deputy Secretary in the early 1990s. Madam Secretary, I look forward to working with you and the team you're assembling at the Department. I'm certainly familiar with the gentlemen you've brought with you today, Chief Economist Keith Collins and Budget Officer Steve Dewhurst. I always enjoy their budget insights.

I would like to take a few minutes this afternoon to talk about some very important issues that affect the Department and my home state of Illinois.

First, I've noticed that the Department's fiscal year 2002 budget contains no emergency funding. The Administration is relying on its proposed National Emergency Reserve Fund or Contingency Reserve Fund—neither of which exist at this time—to provide farmers with federal assistance.

The proposed Emergency Reserve Fund would only be given $5.6 billion in fiscal year 2002 to respond to all types of disasters, including floods, earthquakes, hurricanes, droughts, and the kinds of emergency payments farmers will need. While I am open to efforts to prepare for unexpected emergencies, the continuing farm slump is different. We know the need. Congress has appropriated more than $5.6 billion for farm assistance alone in each of the years since the farm economy's downturn began.

As for offering the Contingency Reserve Fund as an option for funding, this approach pits farm aid against Medicare, Social Security and defense spending needs. I wonder, how is relying on these reserve funds, which compete with other national needs, a responsible method for ensuring our farmers get the support they desperately need?

I raise this point because as we speak, western Illinois and eastern Iowa residents are battling another Mississippi River flood. The Illinois Department of Agriculture tells me that many farmers have canceled orders for inputs such as fertilizer and chemicals and are delaying the planting of crops in anticipation of possible flood damage to their property. Record crests are expected today and the FEMA director will travel to the Quad Cities on Thursday to assess the damage. Already, 28,600 acres of cropland in ten Illinois counties have been affected, according Illinois Emergency Management Agency.

And just like we can't accurately predict floods, other natural disasters or poor crop conditions could emerge through the planting season and into fall harvest throwing our agricultural economy for yet another loop. We need to be prepared.

Congress has provided approximately $25 billion in emergency agriculture aid since 1998. Farm groups have requested up to a $12 billion increase in the agriculture budget for fiscal year 2002 in anticipation of another year of depressed commodity prices and higher input costs. The Senate passed an amendment to the budget resolution that would allow for $9 billion in additional emergency agricultural assistance this fiscal year. I supported that measure.

My colleagues will not be shocked to learn that government payments in 2000 made up nearly half of net farm income. The USDA predicts that without government payments, farm income will fall in 2001 to $4.1 billion. A recent study by the University of Illinois shows that Illinois farm income is up slightly in 2000, but that government payments still account for 21 percent of gross farm returns. In fact, many families have to go off the farm to earn money to pay for simple living expenses and income and Social Security taxes.

Having said that, I think it's important for all of us to realize that the 1996 Farm Bill was not written in stone. It can and should be changed. I believe we must start now by reforming Freedom to Farm because clearly it has failed to meet the most basic needs of producers. Restoring the farm safety net, targeting payments to farmers in need, and ensuring that livestock producers are not left behind should be the first steps.

We must also work to both open and broaden markets for American agricultural products and find appropriate alternative uses. More specifically, I hope that my colleagues in Congress, and in the Bush Administration, will make every effort to expand the role of ethanol in the reformulated gasoline program. Knowing what we know about MTBE, this should be a top priority. I believe expanding ethanol's role

is a win for our farmers, a win for the environment, and a win for the rural economy.

We have a great deal to do and a very short year in which to accomplish these initiatives for rural America and our farm families. It's time for Congress to roll up its sleeves and get to work.

Now, I'd like to mention food safety.

Our country has been blessed with one of the safest and most abundant food supplies in the world. We have the science and know-how to make it even safer. And as the public learns of global threats to diseases like mad cow and foot and mouth and new, unfamiliar technologies—like genetically engineered crops and animals—we need to make sure that public confidence in food safety remains high.

I recently announced that I will soon introduce the National Food Security and Safety Act to strengthen our national defenses against mad cow disease and related threats. This bill will apply sound science and good common sense to make our borders more secure, improve our surveillance activities, and remove from the food supply for humans and animals some animal-derived materials that could potentially spread mad cow. We'll also get these same materials out of non-food items, like cosmetics and medicines.

I also plan to reintroduce the Genetically Engineered Foods Act. While I strongly support biotechnology, I've seen farmers in Illinois and throughout the country get hurt by some grave mistakes made by others. We must be able to better assure farmers of an available market for biotech crops, and assure consumers of the safety and effective oversight of this new technology. My bill will accomplish both these goals.

All food safety threats—whether salmonella or mad cow—are made more difficult to manage by our highly fractured food safety system. Currently, federal oversight for food safety is fragmented with at least 12 different federal agencies, 35 different laws governing food safety, and 28 House and Senate subcommittees with food safety oversight. With overlapping jurisdictions and scattered responsibilities, federal agencies often lack accountability on food safety-related issues.

For that reason, I will also be reintroducing the Safe Food Act. This legislation would unite food safety and inspection activities in a single agency with a clear mission to protect the public health. While the details of a new structure need to be developed in an open, participatory process, one of the best things we can do to protect the public health and save lives is unite federal food safety activities in one agency.

I want to work with you and others in the Administration to design and implement a more streamlined system to strengthen food safety and better protect public health. I hope the Department will continue to explore this idea and work with me on ensuring that our food supply is the safest in the world.

Secretary Veneman, as you may know, the Department has been working in Chicago and the surrounding suburbs to help eradicate the Asian Longhorned Beetle. The City of Chicago and the State of Illinois have been battling these pests for over three years now. Both APHIS and the Forest Service have been invaluable partners in this effort. I'm pleased to see that the Department's Budget includes more than $49 million for efforts to fight Beetles in Illinois and New York.

I hope the Department will continue to work with the Illinois Delegation on the innovative Illinois Rivers 2020 program, a federal-state initiative designed to restore and enhance the Illinois River Basin.

Allow me to touch briefly on Africa. As you probably know, I was in Africa in January of last year and had an opportunity to see U.S. food aid programs in action. I was impressed and heartened by direct feeding programs as well as programs that sell U.S. food products at low cost to finance development projects. But I was overwhelmed by the impact of AIDS on Africa—particularly by the millions of children being left orphaned by the epidemic and the devastating impact on African countries' economies.

I believe U.S. food aid could be used to target communities heavily affected by AIDS. Last year, I supported a provision that passed in the final bill to use $25 million-worth of surplus commodities in the 416(b) program for food aid, or to be monetized for development projects, for communities heavily impacted by AIDS. I would like to know what progress USDA has made in disbursing these funds and what kind of projects PVOs and the World Food Programme suggested. I would like to get the Department's views on the potential for U.S. food aid being used more broadly to help those children, families, and communities affected by AIDS in Africa and elsewhere in the world.

Finally, Madam Secretary, I have asked in the past that the Department specifically request funding to implement the U.S. Action Plan on Food Security. I'm very interested in how you think the United States can meet the commitments we made

to reduce world hunger at the 1996 World Food Summit. So far, our action plans have appeared to be only a list of the programs we already have, but we have not made much progress toward the goal of cutting in half the number of undernourished people by 2015.

Mr. Chairman, again thank you for the opportunity to raise these issues.

Senator COCHRAN. Thank you, Senator. Madam Secretary, our Ranking Member is not going to be able to return to the committee after we go vote—we have a vote that has now begun on the Senate floor—so I am going to recognize him for the purpose of asking a couple of questions, which I hope you can answer; Then we can take a break and go vote, and we will come back and resume our hearing and hear your statement and have additional questions.

Senator Kohl.

FOOT AND MOUTH DISEASE

Senator KOHL. Thank you, Mr. Chairman, for your courtesies.

Madam Secretary, I appreciate your comments on the steps necessary to avoid an outbreak on foot and mouth disease or similar animal diseases in our country. If an outbreak were to occur in my State, which relies on the dairy industry, the consequences would be absolutely devastating, as I pointed out in my April 7th letter to you. In that letter, I also mentioned a troubling story on this subject that appeared in Wisconsin State Journal on April 4 which reported shortfalls in the inspection procedure at U.S. points of entry, so Madam Secretary, have you had a chance to review that story, and would you please respond to the concerns it raises, and if a confirmed outbreak of foot and mouth disease were to occur in this country what USDA procedures are in place for disease containment?

Secretary VENEMAN. Thank you, Senator. As you probably know, foot and mouth disease has taken up a considerable amount of time for us in the Department of Agriculture since we assumed office, with the outbreak that occurred in the U.K. and continues to show new cases every day.

We have been watching this issue very, very closely, and taking considerable action with regard to foot and mouth disease. Initially we suspended the imports of products from any foot and mouth disease country as well as all of the EU, following the outbreak in Europe.

We have strengthened the number of inspectors that we have at ports of entry. We have increased our inspection at airports. We have increased public service announcements. We have increased the number of personnel at ports and airports. We have added about $32 million from our AQI user fees to add inspectors toward this effort, so overall we have been continually reviewing the programs that we have for exclusion.

In addition, we are looking at all of the issues that we have with regard to preparedness should an outbreak occur, and that means working interagency with other agencies to make sure that we are totally prepared in the unfortunate event that we might get an outbreak.

We have strengthened our relationship with the States and the State veterinarians to ensure that all of our programs are working in coordination. We have taken a number of steps with regard to

constantly retooling our programs, looking into how we can strengthen them, because we know how devastating this disease can be to the United States, whether it is in your State, the dairy States, in my home State of California, or around the country, or to all of the livestock herds we currently have in so many parts of the country today.

This would impact seriously on almost every State, and so we are very cognizant of the importance of our vigilance.

As I said, if we did confirm an outbreak we would hope that it could be contained and eradicated very quickly, and we are constantly reviewing our systems to make sure we are working together with our States and all of the resources that we have in the U.S. to ensure that we could act quickly, and in the unfortunate event that we got it, to eradicate it quickly.

Senator KOHL. I would just ask one other question and submit the others for the record, as well as a letter from Senator Wellstone.

[The letter follows:]

LETTER FROM SENATOR PAUL D. WELLSTONE

APRIL 23, 2001.

Hon. HERB KOHL,
Ranking Member, Subcommittee on Agriculture, Rural Development and Related Agencies, U.S. Senate, Washington, DC 20510.

Dear HERB: I understand your Committee is hearing testimony from Secretary Veneman this week regarding the fiscal year 2002 Budget. As you know recent flooding has ravaged a number of Minnesota communities. I would appreciate your informing the Secretary of the current situation in Minnesota as it relates to agriculture.

Continued extremely wet conditions over the weekend of April 22nd have made planting conditions quite difficult. Approximately 5 to 8 inches of snow fell in central Minnesota, and over 4 inches of rain fell covering much of central and southeast portions of the state. Prior to this weekend's precipitation, the following state-wide estimates were provided by the Minnesota Farm Service Agency (FSA): $1 million in structure damage (farm buildings, bins, storage facilities, etc.) and 8,000 acres of Conservation Reserve Program flooded out.

Minnesota FSA estimates that approximately 1.5 million acres of farm land have been flooded. Additionally 10 million acres are saturated, with no capacity to absorb any more moisture. The largest portion of the 11.5 million flooded and saturated cropland are along the Minnesota and Mississippi Rivers. The current cold and wet conditions increase the risk of another occurrence of the perennial scab and blight that affect small grains.

Furthermore FSA predicts delays in planting will result in a marked shift from corn to soybeans, due to a shorter growing season for soybeans. Minnesota already has seen an approximate 35 percent shift from traditional corn acres to soybean acres for this crop year because of favorable loan rates for soybeans. These projected shifts have already depressed the soybean market.

Thank you for your assistance on this matter. As additional information becomes available I will keep the Committee informed.

Sincerely,

PAUL D. WELLSTONE.

CRANBERRY INDUSTRY

Senator KOHL. Madam Secretary, the cranberry industry continues to face record low prices and problems related to oversupply. Wisconsin is the leading cranberry producing area in the country. The current crisis has devastated producers in my State. Currently, I know that you are reviewing a Cranberry Marketing Committee proposal for volume reduction to stabilize market conditions this year. Since it is obviously important that planning decisions be con-

cluded soon, can you provide a timetable by which you will have made a decision on this matter?

Secretary VENEMAN. Well, Senator, I am aware of this issue and the fact that there are industry proposals. The industry is not exactly united on this issue. We are looking at the issue. We hope to have a decision very soon. I understand very clearly the need to act with some urgency on this issue, and the fact that we have to have a timely decision. We will address this issue within a matter of days.

Senator KOHL. I thank you so much, and I thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Kohl. The committee will stand in recess. We will go over and vote on the legislation on the floor, and we will reconvene within a few minutes.

The committee will please come to order. I am pleased to continue our hearing. I apologize for having to suspend while we went over and voted on the legislation on the floor of the Senate.

We are pleased to have before the committee today Secretary Ann Veneman, Secretary of Agriculture. We have had opening statements from our committee members and a couple of questions from the Ranking Member. Madam Secretary, we are pleased to receive your statement at this time, and we will have a few questions following your statement. Your written statement is being included in full in the record, so we encourage you to make whatever summary comments you think would be helpful to us.

SECRETARY VENEMAN'S ORAL REMARKS

Secretary VENEMAN. Thank you, Mr. Chairman, and I was going to say members of the committee, but I will just say Mr. Chairman for now. It is an honor for me to appear before you today to discuss our 2002 budget for the Department of Agriculture, and as was indicated early on, I am lucky to have the two gentlemen with me, both of whom are long-time employees of the Department. Steve Dewhurst, our budget officer, and Keith Collins, our chief economist. I am going to make a relatively brief statement, and then we will all be available to respond to questions, and I appreciate you taking my full statement for the record.

I want to begin by thanking this committee for its support of USDA programs and for the long history of effective cooperation between the committee and the Department. I enjoyed a productive relationship with this committee when I was Deputy Secretary in the early nineties, and I want to preserve and strengthen that relationship in the future. I look forward to working with you, Mr. Chairman and all the members of the committee toward that objective.

As you know, the details of the President's budget proposals were released on April 9th. For the activities within the jurisdiction of this committee, the Department is requesting appropriations for the year 2002 which total $72 billion, an increase of $883 million for the Department's ongoing programs. It is important to note that in 2001 there was more than $4 billion appropriated for emergencies. This budget does not include approximately $3 billion of that spending appropriated for the Department, because it was

mostly one-time emergency spending where the missions have been completed.

By any measure, this is a responsible, yet restrained budget. It meets the President's objectives of slowing the growth of Federal spending, funding urgent national priorities, achieving historic levels of debt reduction, and providing tax relief. Farmers and other beneficiaries of USDA programs all have a stake in these objectives.

As you know, the Department is responsible for a very diverse set of programs. It is always difficult to find the appropriate balance for funding them. Nevertheless, we have tried very hard to provide adequate funding for the most urgent issues facing American agriculture, and we look forward to working with the committee as it proceeds through the year 2002 budget process.

However, I do want to emphasize that in order to get growth of spending under control, it is important that the levels that we are recommending to you today be supported. This budget was developed to include sufficient funding to carry out key priorities, including:

First making sure we have the funding and legal authorities we need to strengthen our agricultural quarantine inspection activities and combat pest and disease infestations;

Provide overseas marketing intelligence and technical expertise needed to support agricultural trade;

Implement the new Agricultural Risk Protection Act so the farmers will have the benefits of improved crop insurance as soon as possible;

Provide adequate funding for our food safety activities, particularly the meat and poultry inspection workforce of the Food Safety Inspection Service;

Support our food assistance programs at levels consistent with the anticipated need for these programs;

Provide adequate funding for the Department's rural developments activities, with particular emphasis on water and sewer facilities, rural housing, and efforts to improve access of rural areas to technology, particularly the Internet;

Provide continued support to landowners, farmers, and ranchers through the Department's conservation programs, and redirect USDA research into important new ares.

With your permission, I would like to briefly make some additional comments on a couple of the areas that I just mentioned. As you know, there has been much attention this year devoted to issues such as foot and mouth disease and bovine spongiform encephalopathy, BSE, particularly given the heightened concerns about the situation in Europe. Preventing the introduction of these diseases into the U.S. is the best way of dealing with these threats.

I have said many times that pests and animal disease prevention and eradication programs are the very infrastructure to protect production agriculture. For 2002, we are requesting an increase of $174 million in appropriations for APHIS programs which will allow us to continue emergency programs underway in 2001.

Specifically, we are requesting almost a 40-percent increase over the 2000 levels for the agricultural quarantine inspection, or AQI program, in order to increase the level of inspections along U.S.

borders and ports of entry. In order to provide more inspection resources at borders and ports of entry as soon as possible, I have authorized use of an additional $32 million of AQI user fees for 2 years, beginning in fiscal year 2001.

Using these two sources of additional funding, we will be able to increase staffing in the AQI program by over 900 by the end of 2002, more than 35 percent higher than 2000. We have also taken a number of other actions in response to the outbreak of foot and mouth disease abroad. We have tightened regulations to prohibit shipments of livestock products from high-risk countries, strengthened Federal, State, and industry coordination, implemented education campaigns, and dispatched U.S. experts to provide technical assistance overseas.

All of these measures have been taken to reduce risk, and we continue to review and examine all existing programs to ensure this Department has all the necessary means to (1) prevent the possible entry of foot and mouth disease, and (2) ensure that if we ever faced an emergency, that we will have the resources and capabilities to quickly contain and eradicate.

Concerning BSE, we are proposing a research initiative for the Agricultural Research Service to determine the nature and transmission of the disease, and to develop improved detection and diagnostic tools. Early detection of the disease before symptoms appear is a priority, both to eradicate the disease and prevent hazardous products from entering the food chain.

Concerning food safety, this budget does not propose any new user fees for meat, poultry, or egg inspection. However, it does request additional funding to support a workforce sufficient to meet industry demand for inspection services so that there is no disruption in slaughter plant operations due to a lack of inspectors. Our goal is to make sure the food supply is safe, and to protect it from the variety of hazards that pose a threat. In that regard, we are also currently conducting a review of our food safety programs to ensure regulations and programs are meeting the goals of protecting consumers.

We believe this budget carries out the President's commitment to expand markets for American agricultural products. I have personally spent a lot of my time over the years dealing with trade matters, and I want to make sure the Department is well-equipped to do the job in this area. In this regard, I would like to emphasize the importance of funding our request to bolster the Department's capability to address technical trade issues and to strengthen our market intelligence capabilities at our overseas posts.

In addition, we are proposing funding for our credit, market development, and export enhancement programs at or above 2001 levels. We also will be aggressively pursuing international negotiations to reduce trade barriers and open markets for our farmers and ranchers.

Finally, I would mention a couple of points on the farm assistance side. Farmers have been through some tough economic times in the past several years, and there is continuing uncertainty about the future. We are closely monitoring the crop and market conditions and if additional assistance is needed we will work with the Congress to determine the nature and extent of that assistance.

There has been an extremely heavy workload in our county office service centers assisting farmers. We expect the heavy workload to continue into 2002, although with some moderation. In order to deal with providing adequate assistance to farmers, we will need greater funding for the salaries and expenses in the Farm Service Agency.

As noted in the budget request, we have proposed some additional funding to properly implement the reformed crop insurance programs authorized by Congress last year. As well, additional funding is included to assure that farmers have access to the credit they may need to carry out their farming operations.

PREPARED STATEMENT

With that, Mr. Chairman, I will conclude my statement. I am looking forward to working closely with the committee on the year 2002 budget. I know that one of the first things we can do to help the committee is to make sure you have all the information that you need to proceed to make decisions about the budget. You have received our budget justifications and other supporting material. If there is additional information that you need, please do not hesitate to let us know.

Now, we would be glad to respond to any questions.

[The statement follows:]

PREPARED STATEMENT OF ANN M. VENEMAN

Mr. Chairman, Members of the Committee, it is an honor for me to appear before you to discuss the fiscal year 2002 budget for the Department of Agriculture. I have with me today our Chief Economist, Keith Collins, and our Budget Officer, Steve Dewhurst.

I want to begin by thanking this Committee for its support of USDA programs and for the long history of effective cooperation between this Committee and the Department in support of American agriculture. The Department had a strong relationship with this Committee when I was Deputy Secretary in the early 1990's. I want to preserve and strengthen that relationship in the future. I look forward to working with you, Mr. Chairman, and all the Members of the Committee toward that objective.

As you know, the details of the President's Budget Proposals were released on April 9th. For the activities within the jurisdiction of this Committee, the Department is requesting appropriations in 2002 which total $72.7 billion. This is a reduction of $3.3 billion from the levels enacted by the Congress in 2001. However, it is important to remember that the 2001 figure includes over $4 billion in emergency appropriations. When this factor is considered, the actual budget for the Department's on-going programs reflects an increase in 2002 of $883 million.

By any measure, this is a restrained budget.

In developing the 2002 budget, the objectives of the President were to slow the growth of Federal spending, fund urgent national priorities, achieve historic levels of debt reduction and provide tax relief. Farmers and other beneficiaries of USDA programs all have a stake in these objectives. Farmers especially will benefit from the elimination of the estate tax and from the proposed establishment of tax-deferred risk management accounts.

Restraint of Federal spending is important. Federal spending has grown substantially in recent years. Left unchecked, Federal spending would far exceed the Budget Enforcement Act baseline over the next 10 years. USDA has contributed to this growth of Federal spending. Now, we must contribute to budget restraint.

Restraining the budget is not easy. The Committee is aware that USDA has one of the most diverse sets of programs in the Government. Developing a budget for this Department always involves difficult questions of finding the appropriate balance among all of these programs within a reasonable budget figure.

We have tried very hard to provide adequate funding for the most urgent issues facing the constituents of the Department. I realize that there are some reductions proposed in this budget which will cause concern. We are more than happy to dis-

cuss those matters and to work cooperatively with the Committee as we proceed through the 2002 budget process. However, I want to emphasize that we share the President's commitment to assuring that the total USDA budget does not exceed the levels recommended to you today.

As we developed this budget, I focused my attention on a number of key concerns. Specifically, I wanted to be sure that this budget had the necessary resources to:

—Provide the overseas market intelligence and technical expertise we need to support agricultural trade;
—Implement the new Agricultural Risk Protection Act of 2000 so that farmers will have the benefits of improved crop insurance as soon as possible;
—Make sure we have the funding and legal authorities we need to strengthen our agricultural quarantine inspection activities and combat pest and disease infestations;
—Provide adequate funding for our food safety activities, particularly the meat and poultry inspection workforce of the Food Safety and Inspection Service (FSIS);
—Support our food assistance programs at levels consistent with the anticipated need for those programs;
—Provide adequate funding for the Department's rural development activities, with particular emphasis on water and sewer facilities; rural housing; and efforts to improve the access of rural areas to technology, particularly the internet;
—Provide continuing support to landowners, farmers, and ranchers through the Department's conservation programs; and
—Redirect USDA research into important, new areas.

With your permission, I will now provide an overview of how I believe this budget responds to each of these important needs.

FARM AND FOREIGN AGRICULTURAL SERVICES

As you know, farmers have been through some tough economic times in the past several years, and there is continuing uncertainty about the future. Although the situation has improved for some commodities, there is continued weakness in certain sectors of the farm economy. The Department will be closely monitoring crop and market conditions over the coming months. If additional assistance is needed, we will work with the Congress to determine the nature and extent of that assistance. The President's overall budget includes a contingency reserve which could be used for this purpose. In the meantime, there are a number of specific proposals in this budget which I would commend to the Committee's attention.

The Administration has established an ambitious trade expansion agenda. USDA will be a full and active participant in that effort. The reasons for doing so are clear. With more than 95 percent of the world's population living outside the United States, the future prosperity of the American farm sector depends upon reducing trade barriers and increasing access to new markets in the expanding global economy.

USDA's trade expansion efforts will involve a coordinated Department-wide effort. One of the highest priorities will be international trade negotiations that provide the opportunity to achieve further reductions in trade-distorting agricultural policies, ensure fairer competition in global markets, and open new markets for our farmers and ranchers.

As the Committee is aware, multilateral negotiations to further liberalize agricultural trading practices are already underway under the auspices of the World Trade Organization. The United States has offered a set of ambitious proposals for the negotiations that provide for the elimination of export subsidies, improved market access through reduced tariffs and increased quotas, reform of state trading enterprises, tighter rules on trade-distorting domestic support, and facilitation of trade in the products of new technologies. The Department will be working closely with the Office of the U.S. Trade Representative to secure an agreement which incorporates those objectives.

Negotiations also are underway to achieve a Free Trade Area of the Americas by 2005. For agriculture, the objectives of the negotiations include eliminating export subsidies that affect trade in the Hemisphere, identifying other trade-distorting practices in order to bring them under greater discipline, and ensuring that sanitary and phytosanitary measures are based on science and conform with Uruguay Round principles. Latin America and the Caribbean region are expected to be among the most promising growth markets for U.S. agricultural products in the coming years, and we need to ensure that American agriculture has maximum access to those markets.

In addition to negotiating new agreements, the Department will be working hard to ensure that our trading partners comply fully with existing trade agreements and do not institute technical barriers to trade that run counter to the spirit of those agreements. Technical trade issues, such as those related to food safety and biotechnology, are among the fastest growing and most sensitive issues affecting agricultural trade today. It is critical that regulatory actions taken by our trading partners do not impede U.S. exports and that they comply with Uruguay Round trade disciplines. It is also important for the United States to participate actively in the international organizations that set the technical standards that govern agricultural trade.

The Foreign Agricultural Service (FAS) is the Department's lead agency in implementing many of our international programs and activities. For 2002, the budget provides appropriated funding of $126 million for FAS. This is an increase of $6.4 million above the 2001 level. This additional funding is provided to bolster FAS' capabilities to address technical trade issues and to strengthen FAS' market intelligence capabilities at its overseas posts. The emergence of increasingly complex trade policy and food security issues in recent years has led to a dramatic increase in workload at the agency's overseas offices. Meeting these priority workload demands in addition to regular commodity reporting, marketing, and representation duties has overwhelmed FAS in a number of key locations. We will be focusing our efforts on 14 important markets around the world where opportunities to expand U.S. agricultural exports appear to be the greatest.

Beyond these specific proposals, the budget also includes adequate funding for our export promotion and market development programs. The sustained effort of these programs is needed if we are to benefit from the market opportunities which become available. The Department's Foreign Market Development (Cooperator) Program, the Market Access Program, and the Quality Samples Program are estimated at $120 million in the budget, the same level as 2001. The Department's Export Guarantee Programs are estimated at $3.9 billion, an increase of more than $100 million above the current estimate for 2001. Finally, funding for the Export Enhancement Program is estimated at $478 million which is the maximum level authorized by statute and the same as 2001; and funding for the Dairy Export Incentive Program is estimated at $42 million, slightly above the current estimate for 2001.

The budget includes a commitment to take a further look at the Department's foreign food assistance programs to be sure they are effective in achieving their objectives. The study has not yet been designed, but I believe it is in everyone's interest to make sure that these programs will meet the Nation's needs for the foreseeable future. For instance, we want to ensure that these programs significantly benefit farmers, target necessary humanitarian feeding needs and avoid adverse commercial impacts.

The budget for this Mission Area also includes other important proposals. Full funding is included for implementation of the reformed crop insurance programs authorized by the Congress last year. The budget includes increases of $250 million in mandatory spending to finance the additional subsidies involved in this program and $9 million in discretionary spending to provide the administrative money required by the Risk Management Agency to be sure this program is properly implemented.

With respect to the Farm Service Agency (FSA) salaries and expenses activities, the 2002 budget proposal will support about 5,900 Federal staff years and 11,500 non-Federal county staff years, including about 2,000 temporary county staff years. The heavy county office workload resulting from the weakened farm economy of the past few years is expected to continue into 2002, although with some moderation. The 2002 budget proposes to increase FSA salaries and expenses funding by almost $120 million, the largest salaries and expense budget increase in USDA. As a result, FSA temporary staffing will be maintained at about twice the levels of the pre-crisis period of 1996–1998.

We have also budgeted almost $4 billion in farm credit programs to assure that farmers have access when necessary to Federally-supported operating, ownership, and emergency credit. This action alone requires an increase of $68 million in the discretionary budget.

MARKETING AND REGULATORY PROGRAMS

Critical issues of pest and disease control are the primary responsibility of the APHIS. For APHIS' salaries and expenses, we are requesting a $174 million increase over 2001. Outbreaks of bovine spongiform encephalopathy (BSE) or "mad cow disease" and foot-and-mouth disease (FMD) in the European Union and other countries underscore the need to protect our borders from animal and plant threats.

Preventing the introduction of these devastating pests and diseases is the most cost-effective approach to deal with such threats. As a result, the APHIS budget provides increased funding for the Agricultural Quarantine Inspection (AQI) program along U.S. borders and ports of entry. Funding for the AQI program in 2002 will be almost 40 percent higher than 2000 and authorized staffing will be increased over 900 staff years—more than 35 percent higher than 2000. Part of this increase results from the additional $8.4 million requested for the taxpayer supported inspection activities at the Canadian and Mexican borders. Another part of the increase results from my recent authorization to expand the user fee supported inspection services by $32 million through 2002. These activities will increase inspection personnel to protect against animal and plant diseases, such as, foot-and-mouth, at major U.S. ports of entry.

In the face of threats from FMD and BSE, USDA has increased its vigilance to prevent such diseases from entering the United States. Live ruminants and their products were already prohibited from all EU countries due to risks associated with BSE. With the outbreak of FMD there, USDA has temporarily restricted the importation of live swine and swine products from the EU as well. This action is in addition to our standing restrictions on specified imports from other countries that have FMD. USDA has also intensified scrutiny and inspections at ports of entry, enhanced anti-smuggling operations, engaged in a public education campaign to raise travelers' awareness, enhanced communication with States and the livestock industry, and furthered our emergency preparedness. Finally, I asked a top California State veterinarian to come to USDA to assist APHIS in our FMD exclusionary planning activities.

With respect to pest and disease outbreaks, the 2002 budget requests appropriations to continue funding for several eradication programs that had been started with funds transferred from Commodity Credit Corporation (CCC). These continuing activities can no longer be considered "emergencies." These appropriations will fund eradication of 9 pest and disease outbreaks, including Mediterranean fruit fly, citrus canker, Asian Long-horned Beetle, and bovine tuberculosis. For any new emergency pest and disease outbreak, we are requesting continuation of our legal authority to use CCC funding.

I would also direct the Committee's attention to other important proposals in this area. For instance, the budget for the Grain Inspection, Packers and Stockyards Administration (GIPSA) includes $1.2 million to facilitate U.S. grain exports by helping resolve recurring international grain quality issues and by enabling GIPSA certification laboratories to meet revised international certification standards.

The budget for the Agricultural Marketing Service includes an increase of $4 million to develop the agency's capability to test bio-engineered fruits, vegetables, nuts, and seeds to support labeling programs aimed at differentiating bio-engineered commodities from conventional commodities. Also, the budget includes an increase of $1 million to expand the agency's involvement in international standard setting activities to ensure that U.S. interests are represented during the development of agricultural standards that have an impact on export opportunities for U.S. producers.

FOOD SAFETY

Ensuring the safety of the food we eat is vital to American agriculture and consumers. There is no question that USDA must and will carry out its duties to protect the food supply from the variety of hazards that threaten its safety.

Unlike some recent budgets, this budget does not propose user fees for meat, poultry, and egg inspection. Instead, we are requesting appropriations of $716 million, an increase of $21 million over the 2001 level. The budget includes an increase for pay and benefits that is necessary to support FSIS workforce, including approximately 7,600 meat and poultry inspectors. The agency estimates that this level of inspectors is necessary to meet industry demand for inspection services without disruption.

The 2002 budget for FSIS also includes an increase to improve the agency's capability to detect residues in meat products being exported to the EU. This will comply with EU requirements and protect these exports.

The 2002 budget also includes an increase to review foreign inspection systems to assure they meet U.S. requirements. The requested increase will enable FSIS to strengthen efforts to conduct follow-up investigations of foreign systems found to have problems meeting U.S. requirements. The increase will also enable FSIS to increase the number of on-site audits of countries requesting initial certification to export to the United States.

FOOD, NUTRITION, AND CONSUMER SERVICES

The budget includes $36.6 billion for the Department's nutrition assistance programs. This is about 50 percent of the total appropriations we are requesting from this Committee.

The Food Stamp Program is funded at $21 billion. This includes funds to cover an anticipated food cost increase of 3 percent and an estimated additional increase of 800,000 participants. These figures are consistent with the overall economic projections in the President's budget. In addition, $1 billion is requested for a contingency reserve. While use of the reserve is not anticipated, it would be available in the event that unforeseen economic changes would increase demand for the program.

The Child Nutrition Programs are budgeted under current law at $10.1 billion, about $550 million more than the 2001 estimate. This estimate is based on increased participation and an adjustment for the Consumer Price Index for Food Away From Home. The Department will continue to work with the States to improve the nutritional quality of school meals and to help strengthen program integrity.

For the Special Supplemental Program for Women, Infants, and Children (WIC), the budget requests $4.1 billion, an increase of $94 million over the 2001 appropriations, which will support a monthly average of 7.25 million participants, the same level expected in 2001. Funds are included to continue efforts to implement electronic benefit transfer (EBT) for WIC. EBT is expected to improve efficiency not only at the grocery checkout, but also within WIC clinics where the cards can greatly simplify identification and clerical tasks. The budget also funds the Farmers' Market Nutrition Program at $20 million, the same as the 2001 level.

NATURAL RESOURCES AND ENVIRONMENT

The 2002 budget request in the conservation area recognizes the importance the public has placed on natural resource concerns, as well as the need to protect the conservation partnership that has evolved over the years between the Department and conservation districts and farmers.

For the Natural Resources Conservation Service, the budget requests $927 million in appropriated funding. This includes $678 million for conservation technical assistance (CTA) which represents the foundation of the Department's conservation partnership. The CTA request includes an increase of $44 million for technical support of the Conservation Reserve Program (CRP). This is necessary because the 1996 Farm Bill imposed significant restrictions on the availability of CCC funds to support services such as conservation technical assistance for the CRP. Any funds not needed for this purpose will be available to support other high priority on-going conservation activities, such as waste management plans for animal feeding operations.

RURAL DEVELOPMENT

The 2002 budget will allow USDA to continue to play a significant role in the development of Rural America. The 2002 budget requests $2.4 billion in budget authority to finance $12.4 billion in rural development loans and grants.

The 2002 budget supports almost $5 billion in loans and grants for rural utilities, including $2.6 billion in loans for electric generation and transmission facilities, $500 million in loans for telecommunication systems, over $300 million for distance learning and medical link facilities, and $1.4 billion in loans and grants for water and waste disposal systems.

The 2002 budget also includes a proposal to provide permanent authority for financing broadband transmission and local dial-up Internet service in rural areas. The 2001 Agriculture Appropriations Act authorized a pilot program that would support $100 million in loans and $2 million in grants for these services. These levels would be maintained in 2002. This program will narrow the gap in access for rural areas to the digital world of telecommunications.

The 2002 budget supports almost $5.8 billion in loans and grants for rural housing. About $4.2 billion of this amount is for loans for single-family housing, and will provide home-ownership opportunities for an estimated 56,000 rural families.

Rental assistance payments would be increased from $679 million in 2001 to $694 million in 2002. These payments are used to reduce the rents of the low-income occupants of USDA financed rental projects. The beneficiaries of this program have an average income below $8,000. USDA maintains a portfolio of projects with about 430,000 units of housing for low-income families. This multifamily portfolio has an outstanding indebtedness of approximately $12 billion. Rental assistance payments

serve the dual purpose of protecting USDA's investment in these projects, while keeping rents affordable for very low income families.

The budget supports a total of $1.1 billion for rural business and cooperative programs. The biggest program in this area is our guaranteed loan program for business and industrial development. Subsidy costs for this program are rising largely because defaults are higher than expected. For this reason, the 2002 budget proposes that the fee charged for these loans be increased from 2 percent to 3.25 percent. This increased fee is consistent with what other lenders are charging and will permit us to provide a $1 billion business and industry (B&I) guaranteed program.

The 2002 budget also discontinues funding for direct B&I loans. Direct loans were first introduced in 1997. Since then, demand has never reached the authorized loan level of $50 million. Further, the subsidy rate has increased dramatically due to increased defaults. This indicates that the program is not achieving its goal to provide long-term, stable jobs in rural America.

RESEARCH, EDUCATION, AND ECONOMICS

To maintain and strengthen U.S. farmers' current competitive advantage in world markets will require investments in new technology. To meet these needs within a restrained budget, we must take a hard look at priorities.

The 2002 budget for this Mission Area totals $2.1 billion including mandatory research grants. This is a reduction of 7 percent from 2001, but about the same level as provided in 2000. There are increases for selected programs and to cover pay costs. Proposed reductions are limited to earmarked projects and facility construction.

The 2002 research budget for the Agricultural Research Service is $916 million, an increase of 2 percent above 2001. The budget includes $15 million for work on bio-based products and bioenergy to overcome technical barriers to low-cost biomass conversion, $12 million for additional work to prevent and control exotic diseases and pests with special emphasis on BSE, $7.5 million to support work on biotechnology, including the development of databases and tools to store, analyze, and interpret genomics data for plants, animals, and microbes.

The 2002 budget request for the Department's extramural grants programs is nearly $1 billion, a reduction of 12 percent from 2001 due almost entirely to discontinuing earmarked projects. Formula-based programs to the land grant university system are continued at the 2001 level. The $544 million requested for these programs represents over one-half of the Cooperative State Research, Education, and Extension Service budget for 2002. The budget also proposes to maintain funding for the competitive National Research Initiative at the 2001 level of $106 million and the Initiative for Future Agriculture and Food Systems at $120 million.

DEPARTMENTAL MANAGEMENT

The Departmental staff offices provide leadership, coordination, and support for all administrative and policy functions of the Department. These offices are vital to USDA's success in providing effective customer service and efficient program delivery. Salaries and benefits often comprise 90 percent or more of these offices' budgets, leaving little flexibility to reduce other expenditures when salary costs increase. Thus, the 2002 budget proposes additional funding to cover pay costs, enabling these offices to maintain staffing levels needed to provide oversight and coordination for management initiatives and activities within the Department. The primary objective is to make the Department an efficient, effective, and discrimination-free organization that delivers the best return on the taxpayers' investments. In this area, we will be focusing on:

—Implementing a civil rights policy that affirms that discrimination will not be tolerated and that complaints will be resolved on a timely basis.
—Completing installation of the common computing environment in USDA local offices so that customers will have the ability to access information and download and file program applications and other forms electronically by the summer of 2002.
—Strengthening information security to safeguard the delivery of services over the Internet while protecting USDA information systems from costly hacker attacks.
—Implementing modern management systems to provide timely and reliable information on USDA's finances, people, and purchases.
—Continuing the renovation of the 70-year-old South Building in USDA's Washington complex to address safety and health hazards and enable access to modern technology.

The budget also includes $71 million to maintain staffing levels for the Office of Inspector General (OIG). Public health and safety issues will continue to be a priority for OIG audits and investigations.

That concludes my statement. I am looking forward to working closely with the Committee on the 2002 budget so that we can better serve those who rely on USDA programs and services.

FOOT AND MOUTH DISEASE

Senator COCHRAN. Thank you very much, Madam Secretary. I think you have given a good overview of the budget request of the administration and emphasized a number of areas of concern in the general public's mind, and also here in the Congress. One, of course, that is at the top of the list, the foot and mouth disease issue. Recently I was reading in one of our major daily newspapers a story about the administration's assessment of the threat in terms of whether it was likely or not likely that we would see an outbreak of foot and mouth disease here in the U.S., and the headline said, administration fears outbreak is likely. I read the article and couldn't find anybody in there quoted as saying that. As a matter of fact, those who were quoted and who had statements attributed to them from the Department of Agriculture were saying that it was not likely. If you had had to write that headline, given the information that you have, would you have said that it's likely or not likely?

Secretary VENEMAN. I would not have said that it is likely. As I said in my statement, Mr. Chairman, we are doing everything that we can to assure that we protect against getting the disease, but at the same time, we are doing everything we can to make sure that in the event that we were to get any kind of outbreak, that we would be prepared to quickly respond and eradicate so that we would not have the situation, hopefully, that we have all seen in the U.K.

BUDGET REVISION

Senator COCHRAN. I know that the budget contains requests for research dollars at Plum Island, the New York facility that I think has the major responsibility for research in this area. Is the budget submission going to be revised in any way, given the instances of changes or new discoveries that are being made that would require more funds for any of the projects and programs that would deal with this problem?

Secretary VENEMAN. Well, as I indicated in my statement, we have added $32 million to help us hire additional people to work at the ports, inspectors and so forth. That money has come from our user fee account. It will not require an additional appropriation.

In addition, we are continually reviewing our programs and looking at whether or not we need additional resources. If it is determined, we will come back to the committee to discuss those needs.

Senator COCHRAN. I think I can assure you for the committee that we would be responsive and quickly move to act on any supplemental request if you feel that that should be included. I know that we are going to have a supplemental submitted that will include the Department of Defense, and there may be other priority

areas for funding consideration. I think we would move quickly to include whatever is needed and justified.

FOOD SAFETY

In another area, food safety, the inspection of our own domestically produced processed foods, there has been a good deal of attention paid in recent years. Senator Durbin in his comments talked about the fact that more consolidation and streamlining needs to be done in this area, but in connection with the funding of the new programs that rely on emerging technologies to discover contamination in foodstuff that is processed here in our country. Do you think the budget that is submitted contains enough funding to guarantee that we will continue to have the safest and most wholesome food supply in the world?

Secretary VENEMAN. First I would simply start out by saying that we are very committed to the issue of food safety in the Department of Agriculture, and we take our responsibility in that regard very seriously.

As you know, we have the oversight responsibility for meat and poultry inspection in the USDA. A number of other food safety authorities are contained in the FDA. We have fully funded the projected number of inspectors that we believe will be needed over fiscal year 2002, and we have done that without proposing any user fees to do it, so we do believe that the Food Safety and Inspection Service is important, and will be funded at levels which will support it.

I might ask Steve Dewhurst to give you a little more specificity on the budget for FSIS.

Mr. DEWHURST. With respect to food safety, we spend about $90 million a year in the Agricultural Research Service in the food safety area. We spend about $35 million a year through the Cooperative State Research, Education, and Extension Service with the university system in food safety, and we are spending an increasing amount now, up to about $6 million a year, in the Agricultural Marketing Service in testing products for residue and for contaminants. The overall food safety activities of the Department are funded in this budget in ways that do not reduce them from the prior year. It is a very substantial commitment.

There is an increase in the FSIS budget of about $20 million. A large part of that is for the protection of the inspection workforce, but there is some money in the FSIS budget to improve their technical capability to identify residues in the meat supply. They have a scientific laboratory that will be upgraded in this budget.

Senator COCHRAN. Almost invariably, when we report a bill from this subcommittee and from the full committee to the floor of the Senate, there is a temptation for Senators to want to add money for all the good-sounding things, and food safety is one of them. We invariably see amendments well-argued to add money. That was one reason I wanted to ask the question, to be sure that we have in the bill sufficient funds to take care of the challenges and problems in this area. I do not think any Senator wants to undercut this program, or to underfund this program.

FOOD ASSISTANCE PROGRAMS

There is a similar concern in food and nutrition programs, too. We want to be sure that we fully fund the programs to feed those who are unable to provide for their own nutrition needs. I am talking about food for everything from the breakfast and lunch programs in our schools, to the food stamp program and the women and infants feeding program, all of which are very important. I notice in your statement you point out that $36.6 billion is requested for funding those programs, and it reflects nearly half of the total amount requested in this entire bill, so I want to ask that question about those programs as well.

Are your requests adequate to take care of the anticipated needs in that program? You do have almost like a mandatory program, obligations to pay what somebody is entitled to under the food stamp program, so are you satisfied with the estimates, that this budget is based upon sound estimates of expected needs?

Secretary VENEMAN. I think they are based upon the estimates that have been traditionally used to determine food stamp needs, and we have fully funded what we anticipated the levels will be needed for food stamps. That is on the mandatory side of the budget. The WIC budget, which is on the discretionary side of the budget, shows an increase of $94 million, for a total of $4.1 billion, and we believe, that that will be adequate to fund the number of WIC desired participants for the fiscal year.

DISASTER ASSISTANCE

Senator COCHRAN. Last year, Congress ordered disaster assistance payments and economic loss payments made to distressed farmers because of drought conditions and other weather-related problems that production agriculture faced last year. We were late with some of those programs in that the regulations under which the funds were disbursed were late being drafted.

This was before you came into office, so it is not your fault, but the purpose of my inquiry right now is, have we gotten to the point now where we see the funds that have been appropriated by Congress for this purpose are being paid to farmers? Are there any further hangups or problems that we need to address in a supplemental way to deal with last year's declared emergencies?

Secretary VENEMAN. Senator, when we came to the Department there were a number of these regulations yet to be completed. As far as I know, I think we had all of those regulations completed within about 60 days. Most of the programs now that were authorized then, the payments are now in the process of being made under these programs.

Mr. DEWHURST. We made about $3½ billion in payments against those programs and, of course, the key program, the crop loss payment program, was not capped in the legislation, so we can use whatever money is necessary to make those payments so we should be able to cover the needs in that area.

Secretary VENEMAN. Keith Collins has one additional point.

Mr. COLLINS. There is one program left that we are still working on, and that is the one that would pay farmers for quality losses as a result of last year. That is a very difficult one, because we

have to spend a fair amount of time figuring out what a quality loss is. That is the last of 15 or so major programs that the Farm Service Agency has to get out.

Senator COCHRAN. Of the moneys appropriated by Congress to be paid out, how much did we appropriate that has not been paid out? Do you know what that number is, and do you recommend a rescission or a deferment?

Mr. DEWHURST. Senator, direct assistance to farmers, the estimate was $3,542 million. That was an estimate. We have paid about $3½ billion so far. We have additional authority to put out additional money if we get valid claims under the crop loss disaster program, so essentially we can meet the need, and we have implemented the entire program.

Senator COCHRAN. Thank you.

Senator Craig.

Senator CRAIG. Thank you, Mr. Chairman.

POTATO WART

Secretary Veneman, I understand a letter has gone to the Canadians in relation to potato wart.

Secretary VENEMAN. Yes, Senator. Over the last several weeks we have been dealing with the Canadians on the issue of potato wart and the fact that it was found on Prince Edward Island.

There has been a lot of debate back and forth about what kind of measures would provide the level of protection that is needed to make sure that this disease does not spread from Prince Edward Island and the place where it was found to other parts of Canada and, indeed, into the U.S. Our scientists have been negotiating with Canada for a number of weeks on this issue.

We had our team of scientists come back together over the last week or 10 days and look at additional ways in which we might provide the level of protection we would need for potatoes to move off of Prince Edward Island to ensure that the risk of moving that disease was as small as possible. As a result of discussions that were held yesterday, the scientists have come to terms on an agreement that would allow movement from Prince Edward Island subject to meeting very stringent standards on cleanliness.

As you know, this disease is carried in the soil. Subject to the cleaning of the potatoes to stringent standards there would be allowance for these potatoes to move into other areas of Canada. In addition, potatoes for table use only could be moved into the United States if they are washed and what is called desprouted. We have discussed this with a number of scientists. They are satisfied that it provides the level of protection, and there will be a joint exchange of letters between the two countries finally resolving this issue for the 2000 year crop.

Senator CRAIG. So at least the scientists are jointly agreeing. The Canadians have not yet accepted, or is that joint agreement, that action an acceptance?

Secretary VENEMAN. The final documents are in the process of being drawn up as we speak. They may be completed by now.

EXPEDITED APPROVAL OF REQUESTS

Senator CRAIG. On March 7, the Idaho delegation submitted to you a request for the expedited approval of conservation reserve program, emergency haying, and grazing. The reason for that is severalfold. As you know, we are in a drought environment in the intermountain West as we speak, or the Pacific Northwest. That, coupled with about 1.3 million acres of land in Idaho that burned last year in the worst fire season ever, of which about 69,000 acres was private grazing, and of which about 37,000 acres cannot be grazed in 2001.

It is also true of a substantial number of public acres that can now not be grazed this year because of last year's fires. In addition, 227,000 acres of that land burned about—almost 200,000 cannot be grazed.

We believe that the emergency flexibility is necessary. we have got livestock men and women who are now ready to turn their cattle out onto the range, and some of them have no range to return to. We would hope that we could get your look at that right quickly and get a response to that request.

Secretary VENEMAN. We will expedite the review of this request. I know that there have been a number of emergency situations around the country where our FSA people in the field are reviewing requests, looking at the damage, and we will be looking at the emergency programs that might be applicable.

CHINA IMPORTATION OF POTATOES

Senator CRAIG. Last year also, I guess it was August 1, APHIS announced China was open to the importation of potatoes. I found it quite interesting that Alaska, a great potato-producing State, along with Washington and Oregon, were the only three States recognized. Idaho for some reason did not find its way onto that list. We would suggest that we do grow a few more potatoes in Idaho than they do in the Mattanuska Valley of Alaska, and so therefore it would be appropriate that we might appear on that list. We hope you would review that.

Secretary VENEMAN. We certainly will, Senator.

Senator CRAIG. Thank you much. My requests are simple ones.

Senator COCHRAN. Senator Durbin.

Senator DURBIN. Thanks, Mr. Chairman.

ENVIRONMENTAL PROTECTION AND CONSERVATION

Madam Secretary, I have noted in the budget in several areas relating to environmental protection and conservation that you are proposing to eliminate some programs that have been around for a while—the wetland reserve program, wildlife habitat incentives program, the environmental quality incentives program, and conservation reserve program. Senator Harkin I am sure will follow through on this.

Senator HARKIN. Do you want my chart?

Senator DURBIN. Thanks, Senator Harkin, for bringing our chart.

I would like to ask, Madam Secretary, at a time when farmers certainly across the Midwest are facing extreme difficulties in making a living, to the point where they are relying on the Federal

Government for more than half of their income, do we not run the risk, if we eliminate these environmental protection and conservation programs, that we will be giving at least a tacit approval to farmers planting land or using land that frankly is not in the best long-term interest of America?

These conservation programs I think are especially important when the economy is in a very difficult time for our farmers. Do we not run the risk, without these programs, of creating incentives, the wrong incentives for farmers to plant fragile land?

Secretary VENEMAN. Senator, first of all I would say that we take our environmental responsibilities in the Department very seriously, and we have a number of programs that assist farmers that are very beneficial to, as you say, protecting the land, because the farmers certainly have a vested interest in protecting the resources upon which they rely to produce their products.

A number of these programs that have been discussed—and I have been asked this question several times—have reached their authorized levels for funding under the last farm bill. We do not have any additional acres to enroll. I will ask Mr. Dewhurst to address the specifics of the budget for the programs that you mentioned.

Mr. DEWHURST. In the wetlands reserve program, the statutory limit on acreage is 1,075,000 acres. There was an increase approved by the Congress for this fiscal year to get to that number, and that additional acreage of 100,000 acres will be signed up this year. At that point we will be against the acreage limit, and so there is no authority in current law to add more acres.

In the wildlife habitat incentives program and the farmland protection program, there were cumulative funding limits in the farm bill for those programs, and we are against those limits.

In the conservation reserve program we have approximately 33 million acres in that program. We have a current statutory cap of 36½ million acres for that program. The budget assumes that we will have an additional sign-up in fiscal year 2002 to add those acres to the CRP program, and there is appropriated money requested in the budget for the Natural Resources Conservation Service to be sure that they can provide the technical assistance and support of that CRP sign-up, but beyond that, of course, there is no authority and therefore there is no proposal in the outyears.

Senator DURBIN. I thank you, and I thank you, Madam Secretary. I would have thought that it would have been sound policy for the administration to come forward and acknowledge the limits on authority, but also the backlog of applications on all of these programs that indicate a genuine interest by farmers and producers across America to set land aside that might otherwise cause environmental damage.

Instead what we have seen is kind of a closing of the door. Basically saying this is the end of the program as we see it. I will not dwell on that. If you would like to respond, I would be happy to allow it at this point, and then I would like to ask another question.

Secretary VENEMAN. Senator, I would not say it is a closing of the door. It is certainly a recognition of what the limits are, but secondly it is a recognition that we are going to be looking at—and

I say we, meaning the administration and the Congress are going to be looking at the farm bill for the year 2002. I have had discussions with many groups, with many people in Congress, there is a great interest in making sure that we address many of the environmental programs, that we look at new ways, new kinds of programs in the environmental areas, and we certainly look forward to working with you to look at new opportunities in that regard.

Senator DURBIN. Thank you.

FOOD SAFETY

On the issue of food safety, I want to commend your decision on April 5. I do not know the background, and perhaps this is your first chance publicly to explain it. When you came to the testing of salmonella contamination for ground beef in the school lunch program, there was a posting on the USDA web site on March 30 to indicate that there would be an end to zero tolerance testing for salmonella in ground beef used in the school lunch program.

That sent a shock wave across the country, because people were very concerned that we might be compromising the safety of food for our children, some of the most vulnerable in our society, and there was really no explanation for it. I commend you again for announcing that you reversed the decision. I think at the time someone said it was made at a lower level and it never reached your office. Could you comment about how such an important decision could be made at that level, and what is your approach going to be when it comes to these issues of food safety in the school lunch program and other areas of jurisdiction?

Secretary VENEMAN. Well, as I said earlier, Senator, we take food safety issues very seriously. This issue is difficult to understand, because most people believe that it would have been a regulation. This actually was a contract standard for purchases of product for school lunch, and the contract standards were drawn up in the Agricultural Marketing Service rather than in the food safety or the nutrition areas. It was in the Agricultural Marketing Service, and they were looking at a different approach to the standard, which would have measured for a number of the microbiological indicators of salmonella but not the test result for salmonella itself.

I was unaware of that decision at the time it was posted on the web. When I was made aware of it we pulled it back and went back to the old contract. We are now reviewing that.

One of the other issues, of course, was that it did not have concurrence of all the parties who were interested in this issue, and so we pulled that back and we are now working with all of the interested parties to determine whether or not there is a common ground with regard to this issue that will provide a complete level of protection for our schoolchildren. This again was a contract standard. That is why it was done at the level of this.

Senator DURBIN. I do not want to jump ahead, but are you saying that the basic policy decision is still in play and still being considered that the Department may reach the same conclusion, or a slightly different conclusion? What is your hope in terms of outcome here?

Secretary VENEMAN. Well, what is being looked at is the overall contract standard for purchases of ground beef—making sure that

the contract standard has the greatest amount of protection that we can ask for in terms of a contract. We are looking at what fast food restaurants do in terms of what they demand, in terms of their suppliers, and we are looking as the customer of the product, and so we want to make sure that our contract standard is consistent with what we need to do, and what will provide the level of protection that we need for our children.

Senator DURBIN. Can families across this country be confident that when this is over that the standard we will use for ground beef and other food in the school lunch program will be at least as safe, if not safer, as that used by commercial entities across this country?

Secretary VENEMAN. Yes.

STARLINK

Senator DURBIN. Let me ask you about the biotech area. When it comes to StarLink, for example, I made an inquiry of the agencies that are involved in StarLink and was surprised to find a real lack of coordination. The USDA, the Food and Drug Administration, the EPA, all clear a biotech crop like StarLink, and I think you understand the contamination of StarLink has caused a great deal of economic loss and concern across America. I would like to ask you if you would consider, early in your administrations, looking to a coordination when it comes to this type of biotech product. I sense that there just is not enough communication, and I am fearful if we do not understand the implications of this, either from an economic or scientific perspective.

Secretary VENEMAN. Senator, I think that is a very important issue, and I agree with you. When I was in the Department in the late eighties, early nineties, the issue of biotech at that time was just how we were going to regulate it within the U.S. Government. At that time, there was very coordinated approach with FDA, EPA, and the USDA in terms of setting up the regulatory structure under which agricultural biotechnology would be regulated.

Since I have been back in the administration, of course, the StarLink issue has continued to be fairly significant. As you know, we had the issue of trying to get the seed out of the system for this year, and USDA agreed to purchase the seed that was in the hands of various distributors, but I will tell you that we also are increasing coordination all the time among these three agencies and among other agencies as well that have an interest, because so many of these issues now impact trade and other issues.

We have had, actually this week, a Cabinet-level coordinating meeting on these biotechnology issues and how we are going to move forward and work together on them, but I can assure you that we in the administration are working very closely together, recognizing that we need a very strong, coordinated system to deal with these issues.

GLOBAL FEEDING INITIATIVE

Senator DURBIN. Mr. Chairman, I would like to make two last comments and yield to my colleagues. I have worked with former Senators McGovern and Dole and my colleagues Senators Harkin and Leahy and Lugar and others on the feeding program, the inter-

national feeding program. The last administration by administrative decision moved money into this option that we could send some foodstuffs abroad, particularly for children, really focused on countries of greatest need, such as those that have been ravaged by the AIDS epidemic. We are going to be introducing formal legislation next week as a group on the Hill here, and I sincerely hope you will take a good look at this. I hope the administration can support this bipartisan effort.

WIC FUNDING

The last point that I will make, and then, of course, any closing comment I will leave to the Secretary. When it comes to WIC funding I have a concern. The concern is, although there is an increase in WIC funding in your budget, if we take the unemployment figures that have been projected by the administration for this year and look back to the history of the program as to the number of people who enroll in the program with that level of unemployment, then the amount of money that you are suggesting we appropriate this year will be inadequate.

For example, in 1998, when unemployment was at the same level as the administration is projecting for the year 2002, WIC participation averaged 7.37 million per month. As I understand it, your budget projects that only 7.2445 million women, infants, and children can be served with the current budget.

I would hope you will keep a close eye on this, because if we do not make a quick recovery and see higher unemployment, I think the demands in this program will grow, and we certainly want to make sure the nutritionallob needs of children and pregnant women are taken care of.

Secretary VENEMAN. We do—Senator, I do believe WIC is a very important program. I was surprised during my briefings yesterday to learn that almost 50 percent of the children born in this country have some kind of WIC assistance.

GLOBAL FEEDING INITIATIVE

As to the global feeding initiative, we have allocated $300 million this year as a pilot program for that initiative. I am looking forward to meeting next week, I think, with Senator McGovern to further discuss this issue.

Senator DURBIN. Thank you very much. Thanks, Mr. Chairman.

Senator COCHRAN. Senator Dorgan.

Senator DORGAN. Thank you, Mr. Chairman, very much.

TRADE SANCTIONS

Again, Madam Secretary, welcome. Let me ask a number of questions in some policy areas. Number 1, you devoted a fair amount of your presentation to the issue of trade, opening foreign markets and so on. As you know, I have spent a great deal of time and in fact on this subcommittee offered amendments that became the subject of substantial controversy dealing with sanctions against other countries. That includes sanctions with respect to food and medicine. I am wondering if you have any information about this

administration's inclination of lifting especially food and medicine sanctions dealing with all countries, including Cuba.

Secretary VENEMAN. Senator, as you know, this administration has supported no new unilateral sanctions. I do not anticipate that the sanctions with regard to Cuba would be lifted at this point unless there was some kind of change in the structure of the Government there.

Senator DORGAN. But those of us in Congress will attempt to remove the impediment that was created last year in our legislative initiative. That impediment makes it appear as if there will be an opportunity to sell some food into the Cuban market, whereas, in fact, we will not be selling food into the Cuban market. My question is, for those of us who are attempting to remove that restriction, will the administration be supportive, or will it be opposing us?

Secretary VENEMAN. I have not talked recently with people to know exactly what the administration position is, but I can certainly reiterate that the position has been that they do not support any new unilateral sanctions.

Senator DORGAN. I understand. Would you make some inquiries and get back to me to let me know what we might expect.

Secretary VENEMAN. Certainly.

Senator DORGAN. I think it is immoral for this country, and I feel that with respect to any administration, to use food and medicine as weapons in the use of sanctions. I think it is not the right thing for this country, and it does not matter what other country we are talking about, it is not an endorsement of a foreign leader whose policies we have great problems with, or a foreign leader we may very well disrespect.

It has to do with sick, hungry, and poor people. When we impose sanctions that include food and medicine, especially food, we take aim at a dictator some place, and we end up hitting poor people, sick people, and hungry people, and we have to stop it. We know enough now to stop it.

So I am going to attempt once again to remove that roadblock, and I would hope for your support and the administration's support.

AGRICULTURAL RESEARCH

Let me ask a question or two about the issue of agricultural research. One of the top scientists at North Dakota State University told me on several occasions that we have had in recent years the fusarium head blight which is called scab. We have had the worst crop disease in a century in our State. The result is, we have had to rely on a robust amount of agricultural research at our research institutions to try to respond to it.

As you know, the President's budget calls for a cut of close to $190 million in research related to education programs, which would result in curtailing or eliminating some of these programs and projects that are very important in agricultural research. Can you speak to that for a moment? It seems to me that this is ill-advised, and can you tell me some of the administration's thinking in the preparation of a budget that would cut that amount of money for research?

Secretary VENEMAN. The primary cuts in the research budget, as I understand it, are mandates that were put in the budget, and not proposed by the administration. I think it has been traditionally the way that the administration has proposed budgets, is that they have not put in those mandates, and I think those are the major cuts.

Senator DORGAN. Might I ask also your judgment about agricultural research? Would you not agree that at a time when we are trying to battle some pretty significant crop diseases, that we would want to maintain a robust agricultural research function?

Secretary VENEMAN. Absolutely. I think research is very important, and I think it is particularly important in the areas you are bringing up. Pest and disease prevention and eradication is very important, as we have talked about, the animal diseases we tend to deal with since we have been here. Crop diseases and pests are significant issues for American agriculture.

As I said in my opening statement, pest and disease prevention and eradication really are the infrastructure of what protects our agriculture in this country, and we need the research to support that.

I also think that we need to be targeting our research to address issues such as food safety, to address issues such as environmental issues that agriculture is facing, to look at new technologies, new uses, and alternative uses for agricultural products. So certainly research is important. In terms of biotechnology as well, we were talking earlier about some of the biotech issues, and so research in all of those areas are ones where we think our priority should be.

QUALITY LOSS PROGRAM

Senator DORGAN. Let me ask on the quality loss program which I helped create along with my colleagues on this subcommittee. This is the one area of help for family farmers that is not yet available and the payments for that have not yet gone out. Can you give us a timetable for that? When do you expect the quality loss program will be ready to provide some help to family farmers?

Secretary VENEMAN. I am going to have Mr. Collins address some of the issues on that program.

Mr. COLLINS. I regret I cannot give you a timetable as I sit here.

Senator DORGAN. Mr. Collins, I cannot hear you.

Mr. COLLINS. I regret that I cannot give you a timetable as I sit here at the moment. We continue to work on that. It is difficult, because we have to establish how we measure quality and what the benchmark of quality is. That is what the producer would have produced otherwise, but we are working on that very diligently. We have a team from all over the country that is working on that.

Senator DORGAN. But you can narrow it down. I mean, is it a week, a month, a year? I assume it is not a year.

Mr. COLLINS. It will not be a year.

Senator DORGAN. Are we within days or weeks of having this completed so that some payments can go out to farmers?

Mr. COLLINS. I cannot tell you the answer to that. It is certainly something that is the highest priority we have at the moment. It is the last of these 15 or so programs that we have been putting together.

Senator DORGAN. But somebody must have some notion. Are we within weeks, or is it going to be months? What is the objective?

Mr. COLLINS. As soon as possible, in the near term.

Senator DORGAN. But you are a trained economist.

Mr. COLLINS. I am, but I am not, unfortunately, writing this reg.

Senator DORGAN. But somebody is, and I am not trying to be confrontational, but somebody needs to give me some notion. Is this going to be within a month or so? What can farmers expect here? We have got a lot of them that are almost flat on their back, and they are into spring planting. The lenders do not have the foggiest notion what is going to happen this year with respect to a farm price support program.

Mr. COLLINS. I will tell you there are a number of particular problems with this that we are still working on, and I hope that we will finish them very shortly. One, for example, is hay. Hay is probably going to be the biggest commodity we deal with under this quality loss program. Hay has not been part of our crop disaster programs frequently in the past, and so we have got a lot of pioneering work to do here. I am not trying to equivocate. I am just telling you that we are working on this as diligently as we can. We understand the needs of American producers and we are going to get this out absolutely as soon as possible.

Senator DORGAN. Secretary Veneman, any comment on that?

Secretary VENEMAN. What I have been told is similar to what Mr. Collins has said. There have been some difficult issues with regard to this particular program. Because it is a pioneer program, we have never really dealt with this kind of calculation before, and it is not an easy thing to do. I would be happy to have our staff come and brief your staff on some of the issues we are encountering, if you would like that.

Senator DORGAN. Let me just say to you, I understand this is not a program without difficulty. I am just trying to get a sense on behalf of our producers out there what your goal might be in trying to sift through all of these difficulties.

Secretary VENEMAN. Our goal would have been to have it out within the 60 days that we got most of the other regs out, but because we cannot—our folks have not been able to work out the calculation on this. It has not been an easy one, and I frankly have not been given any timetable.

Mr. COLLINS. I would also mention, there is software development problems. I understand what you would like, Mr. Dorgan. We would like to be able to tell you. The problem is, if I tell you next week and we do not meet next week, then it creates a lot of difficulties.

Senator DORGAN. I understand why you are hedging, and you understand why I am asking, so we have reached a perfect balance here.

We actually have both studied economics, have we not?

Mr. COLLINS. Well then, we are very clear with one another.

Senator DORGAN. If I might, Mr. Chairman, do I have another moment to ask another question?

Senator COCHRAN. No more economic questions.

You go ahead.

Senator DORGAN. Let me quote Mr. Collins in testimony he provided recently. He said, a strong rebound—is it okay to quote an economist?

FARM PROGRAMS EMERGENCY FUNDING

Senator DORGAN. He said, a strong rebound in farm prices and income from the marketplace for major crops appears unlikely, at least over the next couple of years, in the absence of major global shortfall in crop production, and then he went on.

Given that testimony, I would ask Secretary Veneman, would it not be preferable to acknowledge now that we may have to provide some emergency funding in the farm program, rather than take the position well, let us just wait and see?

The problem is, all the farmers in this country, the family farmers who are relying on a farm program to help them through tough times and through collapsed prices are now going into spring planting after they have been to the bank. Neither they nor their banker have the foggiest idea what kind of assistance might be available this year outside of the Freedom to Farm bill, which in itself, as you know, is going to call for decreasing payments.

So would it not be better, given Mr. Collins' testimony that it is unlikely that we are going to see strength in the marketplace, would it not be better just to say to the farmers, look, the Secretary and the administration understand we are going to have to do something to provide some countercyclical help this year in the form of emergency help?

Secretary VENEMAN. Senator, this is an issue or a question we have certainly gotten many times and, as you know, when the President addressed the Congress, he set aside nearly $1 trillion for emergencies, a savings account for the Government to deal with emergencies, and one of the emergencies he articulated that might be eligible for that savings account, that special, almost trillion-dollar fund, was agriculture.

As you know, the Congress has not really dealt with these emergency situations until August or September after they see what the crop looks like, after they see what the emergency really is, what the disasters are, and then the Congress has dealt with that.

The administration, because of the uncertainties of what the situation may be, what the emergency may be, has not at this point in time proposed any additional funding, but again, that nearly trillion-dollar reserve is available, and agriculture is one of the issues that will be considered as a part of that.

Senator DORGAN. That is an understandable position. I understand the rationale for making that judgment and saying what you said. But then, is it not also understandable for you to say, although we will not make that decision today, we want to send a signal to farmers across this country that if we have a tough crop, if we have collapsed prices through this fall, this administration stands prepared to work with Congress to develop an emergency fund and an emergency program?

The reason I ask that is, you have indicated in your speech recently there is no assurance of Federal help in the future, and that creates the uncertainty out there that people are concerned about. I am just wondering if there is a contingency fund, in fact- and

there is some dispute about whether that is not medicare trust funds, but if there is, in fact, a contingency fund, would you say to farmers today that if things remain as they are, prices are continued low, and we have the problems that we expect and Mr. Collins predicts, that the administration stands ready to work with the Congress on emergency help for farmers this year?

Secretary VENEMAN. Yes, and I think I said that I believe that there is certainly a good likelihood that we will see additional emergency assistance this year, and we certainly would stand ready to work with the Congress in that regard once we determine what the needs and the emergencies are.

Senator DORGAN. And be supportive of that?

Secretary VENEMAN. Yes.

Senator DORGAN. As I indicated when I made my opening statement, you have assumed a challenging job in challenging times. You and I could spend a lot of time, but I will not continue further, except to make one additional comment. There are a number of things where we would have disagreements.

RURAL TELEPHONE BANK

For example, the rural telephone bank, zeroing out that program I think is a mistake. Those of us who come from rural America and understand the need to avoid having a digital divide, and the need to especially have rural telephone companies play a significant role in the development of advanced telecommunications services all across the country know that we are going to need to rely on the rural telephone bank program. We are going to have to try to add back—I mean, I do not want to zero that out, so there are areas of disagreement.

I think we can have a discussion about them as we go along, and I would say, as I said when I started, my main concern here is family farms. Those families are living out there trying to make a go of it. This country will lose something very important if we do not get a program to help family farmers through tough times. The current farm program does not work. We have demonstrated that year after year, unfortunately, with emergency needs.

But, I hope to work with the chairman who, in the time that I have been on this subcommittee, has done an excellent job. He has worked with us as we go into conference to help provide some emergency help and has recognized what is going on in this country. We hope to be able to work with you to do that, Mr. Chairman.

Thank you very much.

Senator COCHRAN. Thank you, Senator Dorgan. I appreciate your kind comments, and I look forward to working with you and all the other members of this subcommittee to craft a bill that we can present to the full committee that will reflect the legitimate needs of production agriculture, and also reflects our concern for carrying out the responsibilities of law in a lot of other areas. We have mentioned a good many of them today.

Madam Secretary, my impression is that you are off to an excellent start as Secretary of Agriculture, and I commend you for the good job you are doing and the way you are going about trying to identify problems and find the right solutions and be a real leader in the Department of Agriculture.

I want to also let you know that you made the newspaper back in Jackson, Mississippi, today. This is your photograph, and it is a story that was released by the Delta Council up in Cleveland, Mississippi, saying that you would be the speaker at the group's annual meeting on May 24. That is really good judgment.

Secretary VENEMAN. As I recall, Senator, you made that request at my confirmation hearing.

Senator COCHRAN. It is very unique how this works out.

I hope you enjoy your trip to Mississippi and all goes well. I am sure it will.

Secretary VENEMAN. And I am taking my assistant, Hunt Shipman, with me.

Senator COCHRAN. Then you will not need a map of the local roadways if you have him along.

ADDITIONAL COMMITTEE QUESTIONS

There may be additional questions that will be submitted to the Secretary from members of the subcommittee, and we hope you will be able to respond to them in a reasonable time. Thanks again for participating and cooperating with our committee.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

ANIMAL PLANT HEALTH AND INSPECTION SERVICE (APHIS)

Question. What is the projected need for predator control funding for fiscal year 2002 for wolf activities in Wyoming, Idaho, and Montana? What is the projected need in Minnesota, Michigan, and Wisconsin?

Answer. The U.S. Fish and Wildlife Services—(FWS) gray wolf reintroduction in Wyoming (Yellowstone National Park) and Idaho has been so successful that wolf populations have expanded beyond original introduction site boundaries. From an original reintroduction of 66 wolves in 1995 and 1996, the FWS now estimates there are between 360–405 wolves in these two States. In addition, naturally occurring wolf populations in Montana have grown from an estimated 25–50 wolves in the early 1990s, to approximately 80 to 100 wolves today according to the FWS. In total, FWS estimates there are approximately 440–505 wolves in the Northern Rocky Mountain area and that the total number of wolves will triple in the next several years. APHIS received $1,000,000 in fiscal year 2001 for predator/wolf control in Idaho, Montana, and Wyoming which we allocated equally among the three States. We are evaluating the impact of these expanding wolf populations and our ability to provide adequate service with the increased funding.

The Minnesota wolf population has steadily increased from approximately 1,200 wolves in 1979, found only in the remote northeastern parts of the State, to approximately 2,600 wolves now. This population increase has caused a significant southern expansion with a contiguous range now covering approximately 40 percent of the State. Wisconsin began to monitor the wolf populations in 1979, with an initial report of 25 animals. In the late 1980s, this population began to steadily increase and there are approximately 250 wolves now. In 1995, wolf discoveries occurred in areas south of the northern Wisconsin region. As wolves began to occupy northern Wisconsin, individual wolf observations occurred in the Upper Peninsula of Michigan. The FWS now estimates that approximately 200 wolves inhabit the Upper Peninsula. With such a large and ever expanding natural population of gray wolves, we have been addressing wolf impacts in Minnesota since the mid 1970s. The population growth and expanding range have resulted in wolves moving into Wisconsin and Michigan.

Question. What is the amount of funding in the baseline and the President's fiscal year 2002 budget request for the protection of sunflowers and rice from blackbirds?

Answer. The President's fiscal year 2002 budget request contains the following funding levels to protect sunflowers and rice from blackbirds (which are amounts

that the Congress appropriated in the form of directives in previous years): in fiscal year 1989, APHIS received $368,000 for blackbird control in North Dakota and South Dakota; in fiscal year 1994, APHIS received $50,000 for blackbird control in Arkansas, $50,000 for blackbird control in Illinois, and $120,000 for controlling blackbird damage to rice in Louisiana. APHIS commits these funds to Congressionally directed activities, such as the cattail management program in the Dakotas and to protect sprouting rice in Louisiana.

Question. APHIS has asked for comments on its notice in the Federal Register for protection of sunflowers from Red-Winged Blackbirds in North Dakota, South Dakota, and Minnesota. Should APHIS determine that lethal and non-lethal techniques will be used to control blackbirds, will the funding requested in the fiscal year 2002 budget suffice?

Answer. APHIS is evaluating the need to manage blackbird damage for the protection of sunflower crops. As part of that evaluation, APHIS personnel are conducting an environmental analysis of proposed actions which may include lethal control methods, non-lethal control methods, or a combination of both. Because of the range of issues that the public has raised through the public participation process, APHIS has decided to develop an environmental impact statement (EIS) to thoroughly analyze the issues and any proposed alternatives for managing the blackbird damage.

Question. As the budget for inspection has increased for animal welfare, has the agency seen an increased need for funding for enforcement and prosecution? If yes, at what amount does the fiscal year 2002 President's request fund enforcement and prosecution?

Answer. The increases in funding for Animal Care over the past couple of years and the resulting increase in the number of Animal Care Inspectors in the field will correlate with a need for more enforcement and prosecution. Fiscal year 2002, the President's request would fund enforcement and prosecution at $6,601,000, an increase of $352,000 over fiscal year 2001.

Question. Please provide information on the pilot project which was funded as a result of the provision in the fiscal year 2001 agriculture appropriations act which required a pilot project on development of non-lethal wildlife predation control methods in four states associated with livestock operations.

Answer. The Minnesota wolf population has steadily increased from approximately 1,200 wolves in 1979, found only in the remote northeastern parts of the State, to approximately 2,600 wolves now. This population increase has caused a significant southern expansion with a contiguous range now covering approximately 40 percent of the State. Wisconsin began to monitor for wolf populations in 1979, with an initial report of 25 animals. In the late 1980s, this population began to steadily increase and there are approximately 250 wolves now. In 1995, wolf discoveries occurred in areas south of the northern Wisconsin region. As wolves began to occupy northern Wisconsin, individual wolf observations occurred in the Upper Peninsula of Michigan. The U.S. Fish and Wildlife Service (FWS) now estimates that approximately 200 wolves inhabit the Upper Peninsula. With this expanding natural population of gray wolves, we have been addressing wolf impacts in Minnesota since the mid 1970s. The population growth and expanding range have resulted in wolves moving into Wisconsin and Michigan. As the wolf population increases, so does the number of depredation incidents against livestock. We project our responses to wolf complaints in Minnesota, Wisconsin, and Michigan will reach 289 during fiscal year 2001, a 26 percent increase since fiscal year 1999.

The FWS gray wolf reintroduction in Wyoming (Yellowstone National Park) and Idaho has been so successful that wolf populations have expanded beyond original introduction site boundaries. From an original reintroduction of 66 wolves in 1995 and 1996, the FWS now estimates there are between 360–405 wolves in these two States. In addition, naturally occurring wolf populations in Montana have grown from an estimated 25–50 wolves in the early 1990s, to approximately 80 to 100 wolves today according to the FWS. In total, FWS estimates there are 440–505 wolves in the Northern Rocky Mountain area and that the total number of wolves will triple in the next several years. APHIS—responsibility has increased significantly as a result of the wolf recovery efforts in Wyoming, Idaho, and Montana. We project our responses to wolf complaints in these States will reach 244 during fiscal year 2001, a 116 percent increase since fiscal year 1999. APHIS received $1,000,000 in fiscal year 2001 for predator/wolf control in Idaho, Montana, and Wyoming which was allocated equally among the three States. We are evaluating the impact of these expanding wolf populations and our ability to provide adequate service with the increased funding.

Question. Please update the subcommittee on the status of the construction of the bison quarantine facility and the Environmental Impact Statement (EIS) that will be implemented by the National Park Service.

Answer. During calendar year 2000, APHIS, along with several other Federal Agencies, were involved in negotiations with the State of Montana to finalize a long term management plan for bison. The Record of Decision (RoD) on the EIS for bison management was released in December 2000. Since completion of the ROD, program officials have begun implementing the long term bison management plan. Among other items, the bison management plan includes increasing monitoring and surveillance of cattle in the area. Although the plan does not address the immediate need for a bison quarantine facility, it does allow for the consideration of this facility, if needed, at a later date. In the interim, program officials are using an APHIS funded and Montana operated capture facility in Horse Butte for the capture and sampling of bison.

While the plan is not intended to be a brucellosis eradication plan, it is intended to be a plan for the management of bison in the Greater Yellowstone Area (GYA) to prevent transmission of brucellosis from bison to cattle. Our next step will be working with the other Agencies to develop a plan for eliminating brucellosis from the bison and elk populations of the GYA.

Question. Please provide the amount requested (by line item) in the fiscal year 2002 President's budget for Foot and Mouth Disease.

Answer. APHIS has requested $3,839,000 under the Foreign Animal Disease/Foot-and-Mouth Disease line item for fiscal year 2002. This request is for ongoing cooperative programs in Colombia, Mexico, and Panama.

Question. Please provide an update on the Texas and Michigan problems with bovine tuberculosis. What does the fiscal year 2002 President's budget request contain to address bovine tuberculosis (by line item)?

Answer. Of the 10 dairy herds currently located in the El Paso milkshed area, 2 are infected with tuberculosis. Most of these 10 herds have had recurring infections over the years. Only one herd has remained infection free. Recent studies have demonstrated a high probability that the recurrent infections in El Paso are linked to the high prevalence of tuberculosis in the dairies located near Juarez, Mexico. To address this problem, along with several others such as infection in wildlife, the Secretary of Agriculture declared an emergency in October 2000 and transferred $54 million from the Commodity Credit Corporation (CCC). Congress appropriated an additional $6 million towards this effort in the fiscal year 2001 Miscellaneous Appropriations Act. These funds will allow the Agency to implement a comprehensive bovine tuberculosis eradication plan which will include eliminating infected and high risk dairy herds in the El Paso milkshed area. By eliminating these herds, APHIS will create a buffer zone in the El Paso area to protect the U.S. cattle population. APHIS expects to begin eliminating these herds in August 2001. These funds have also allowed APHIS to address bovine tuberculosis in Michigan's wildlife population including enhanced surveillance in wildlife and domestic livestock, and depopulation. To date, close to 444,000 bison, cattle, and goats in Michigan have been tested for bovine tuberculosis. Twenty-seven of these animals (from 13 herds) were found to be disease positive. Of the 13 herds, 11 were depopulated and 2 are on the "test and remove plan". In the fiscal year 2002 President's Budget request, APHIS requests $18.6 million to continue this effort.

Question. Has the new Administration revisited the Clinton Administration's recommended guidelines for the use of lost income compensation to control and eradicate emergency outbreaks of pests and diseases? Has the new administration solicited input from the authorizing committees, state government officials, and experts in academia and the private sector as recommended by the Chairman of the House Agricultural Appropriations?

Answer. We are reviewing the issue now and intend to work with the Office of Management and Budget to determine an appropriate position. Once we finish that review, we will share the position with the appropriate Members and Committees of the Congress.

Question. What amount does the President's fiscal year 2002 budget request contain for the National Poultry Improvement Plan (NPIP) for the National Veterinary Services Laboratories?

Answer. The President's fiscal year 2002 budget request contains $744,000 for the National Poultry Improvement Plan (NPIP), of which $497,000 is for diagnostic support at the National Veterinary Services Laboratory.

FOOD SAFETY AND INSPECTION SERVICE (FSIS)

Question. What level of funding will be spent on ratite and squab inspection in fiscal year 2001 and how much is budgeted for these activities for fiscal year 2002?

Answer. FSIS received $2.5 million in its fiscal year 2001 appropriation to conduct mandatory ratite and squab inspection. The Agency implemented regulations governing this activity on April 26, 2001; mandatory inspection of both species commenced on that date. Costs associated with the development of the mandatory inspection regulation, and with inspection implementation itself, are estimated to be $2.5 million in 2001 and 2002.

Question. Does the fiscal year 2002 budget request earmark FSIS dollars for the in-distribution program? How much?

Answer. The 2002 budget does not earmark dollars for an in-distribution program.

Question. What is the new Administration's philosophy regarding testing for E.coli 0157.H7 at the retail level? Does the Bush Administration plan to continue to test at the retail level or will it increase testing more in the distribution chain? Would more testing during the distribution help to discover the contaminated product sooner?

Answer. The Food Safety and Inspection Service plans to reassess its E. coli O157:H7 testing program. While this review is ongoing, the administration does not plan to make any changes in the current testing program and will wait for the results to determine how best to proceed on a scientifically sound basis.

Question. Does the new administration at the agency plan to work with the meat industry and retailers to minimize the risk of E.coli 0157.H7? If yes, how will the agency proceed?

Answer. Yes, we plan to work with all stakeholders to minimize the risk of E. coli O157:H7 and all pathogens found in meat and poultry. Industry has made several suggestions on changes that could be made to the Pathogen Reduction/HACCP rule as well changes to microbiological testing. Some of their suggestions will be discussed at the upcoming National Advisory Committee for Meat and Poultry Inspection in early June.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Question. Why is there an undistributed amount of funding, $2,776,188, for the Forestry Incentives Program for 2001?

Answer. The $2,776,188 represents the carryover amount from the fiscal year 2000 Forestry Incentives Program activities. All monies have since been released to the states and no reserve is retained at the national level.

FARM SERVICE AGENCY (FSA)

Question. The President's fiscal year 2002 budget request proposes $3 million for the state mediation program. The budget justification notes mention that 2 more states will be approved for participation in 2001. Which states are going to be approved? How much funding is needed to approve all of the pending applications?

Answer. Six states have either submitted or indicated that they would be submitting an application for certification. They are California, Colorado, Maine, New York, Mississippi and Tennessee. California was recently approved to participate in this program and decisions on approving the additional applications will be made soon.

The pending applications can be approved without additional funding. If they are approved, funding for fiscal year 2002 could be prorated.

AGRICULTURAL MARKETING SERVICE (AMS)

Question. Please update the committee on the implementation of the Microbiological Data Program (MDP). Are microbiologists involved in sampling, testing?

Answer. The Agricultural Marketing Service (AMS) has been involved in a number of activities in preparation for implementing the Microbiological Data Program (MDP). I have asked AMS to provide a status of their activities for the record.

[The information follows:]

AMS has established the infrastructure to implement MDP. AMS completed cooperative agreements with the ten participating States. These agreements delineate the responsibilities of AMS and the participating States regarding sampling, testing, reporting requirements, and quality assurance. The agreements, totaling $4 million are with the agriculture departments of California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, Wisconsin, and the California Department of Pesticide Regulation (for sampling). All states will be testing samples

except for Maryland (samples shipped to Ohio) and Texas (samples shipped to AMS Eastern Laboratory).

The work plan for fiscal year 2001 was completed in cooperation with the Food and Drug Administration (FDA)/Center for Food Safety and Applied Nutrition (CFSAN) and the Centers for Disease Control (CDC). The plan requires the quantitative determination of Escherichia coli, as an indicator organism and the identification of Salmonella spp. The sampling design is based on the statistically reliable parameters employed by AMS' Pesticide Data Program (PDP). The number of source samples to be collected is based on State populations, ranging from 14 source samples in California to 2 in Wisconsin and Colorado, for a maximum of 62 source samples per month per commodity. Each source sample consists of 3 sub-samples. Samples are all collected within a state on the same day to create a testing set that meets the appropriate quality control requirements. The probability of selecting a site for sampling in a State is based on the volume of product at the site and was developed using the expertise of the National Agricultural Statistics Service. This sampling method will enable data users to make national inferences based on the data. All samples are collected aseptically, based on random selection at terminal markets and major distribution centers.

The system for sample collection and testing practices was placed in effect April 16 with collections of leaf and romaine lettuce as separate commodities. Domestic and imported tomatoes were added on May 1 and celery is scheduled for August 2001. The commodities were chosen for inclusion into MDP based on national consumption data in consultation with FDA and CDC. Standard Operating Procedures (SOP protocols) were developed for sampling, testing, and data reporting and are being tested during the first several weeks of sample collection. A final system should be in place by June. A proficiency testing system is also under development, slated for implementation later this fiscal year. A data system to handle electronic information transfer similar to the system in effect for PDP is under development, with segments to be developed by contract. An interim system for data transfer is in effect until a combined comprehensive PDP–MDP system is completed with state-of-the-art software design.

AMS established agreements with the Agricultural Research Service and Pennsylvania State University for serotyping of isolates and antibiotic resistance profiling as part of the baseline and research objectives of the Program.

AMS has four microbiologists assigned to handle SOP development and technical aspects of the program. In addition, the eight states engaged in daily testing activities have trained microbiologists and have developed expertise in microbial and pathogen determinations. AMS is also using the PDP sampling infrastructure and data transfer expertise in order to have consistent operation of both programs with the respective participating states.

Question. As part of the MDP, the Subcommittee understands that the data from this program will be made available to state public health agencies for food safety decision-making purposes. However, any premature or incorrect announcement by a public health official regarding microbiological information can prove to be a major setback to public health and economically harmful to the impacted industries. Has this issue been considered and what safeguards are in place in respect to this issue?

Answer. The Agricultural Marketing Service (AMS) has held discussions with the Food and Drug Administration (FDA) and participating States. The States will adhere to their current internal guidelines concerning actions regarding the confirmed determination of a pathogen. From the present testing requirements, this implies the determination of Salmonella. The FDA has requested data at three-month intervals for information purposes. These safeguards should avoid premature actions regarding pathogen determinations.

Question. Industry has applied to AMS for a petition to create a certification labeling program for "USA BEEF". When will this petition be accepted so that consumers will be able to purchase beef labeled "USA BEEF?"

Answer. At about the same time that industry groups petitioned the Department to create a process-verified program, "Beef: Made in the USA", a conference committee report was issued accompanying the Agricultural Appropriations Act of 2000. The conference committee report directs the Department to determine the best terms to use on labels to inform consumers that the beef products are U.S. products. The report stated that the lack of clarity regarding the definition of the terms "U.S. cattle" and "U.S. fresh beef products", hinders the ability of U.S. producers, who raise and handle cattle from birth to slaughter, to promote their products. At this time, an advanced notice of a proposed rulemaking is under consideration by the Department for addressing these issues. In light of these developments, the Department informed the industry coalition that sent the petition that the petition will not be addressed until the issues raised by Congress are addressed.

FOOD STAMP PROGRAM

Question. A USDA report dated January 2001, regarding the Food Stamp Program's Electronic Benefits Transfer (EBT) system, indicates that forty-one states, the District of Columbia, and Puerto Rico have operational food stamp EBT systems, and that thirty-nine of those systems are operating statewide. What is the current status of the nine states which had not completed the implementation of an EBT system as of the date of this report?

Answer. EBT is a high priority for the Department. EBT is expected to improve the efficiency of the program and help identify and control fraud. Thirteen State agencies (11 States, 2 Territories) did not have contracts for Statewide EBT implementation as of the last status report. Theses were California, Delaware, Guam, Indiana, Iowa, Maine, Mississippi, Montana, Nebraska, Nevada, Virginia, the Virgin Islands, and West Virginia. Although without Statewide EBT contracts, California and Iowa have EBT operations in limited areas.

Currently, Indiana, Nevada, and Virginia have approved contracts with Citicorp. Indiana began its pilot May 1, 2001. Nevada and Virginia are scheduled to begin pilot operations in October 2001. The remaining States/Territories—California, Guam, Iowa, Maine, Mississippi, Montana, Nebraska, the Virgin Islands, and West Virginia—are in some stage of planning or procurement for Statewide systems. However, there is a wide range of activity among these States and some are not likely to meet the October 2002 deadline unless they work aggressively to secure a contract for EBT implementation.

Delaware selected E-Funds as its EBT contractor but broke off negotiations when prices were significantly above the Federal cost cap. Delaware subsequently has asked for a waiver from the EBT mandate, citing excessive costs associated with EBT as the reason.

Question. Will all states have an operating EBT system by October 2002, as mandated by Welfare Reform?

Answer. EBT implementation is a high priority for the Department. The Food and Nutrition Service (FNS) continues to work towards the goal of Nationwide EBT by the October 2002 mandate and in particular, we are working with States that have obstacles to EBT implementation. However, State agencies without a contractual agreement in place very soon will have difficulties meeting the October 2002 deadline.

Delaware selected E-Funds as its EBT contractor but broke off negotiations when prices were significantly above the Federal cost cap. Delaware subsequently has asked for a waiver from the EBT mandate, citing excessive costs associated with EBT as the reason.

Other State problems include the lack of staff resources, budget constraints, insufficient infrastructure, the lack of technical expertise, competing priorities, and the sheer lack of time to complete implementation by October 2002.

Question. One projected benefit of the EBT system is the decreased possibility of fraud within the Food Stamp Program. An Associated Press article dated April 10, 2001, revealed that a New York food stamp recipient discovered an additional $221,382 in her food stamp benefits account after making a purchase with her EBT card. What has been done recently to fight error and fraud within the entire Food Stamp Program, and specifically the EBT system?

Answer. The instance you cite of the overpaid recipient was, upon investigation, found to be an error in the retailer's point-of-sale device which caused an incorrect balance to print on the receipt. The incorrect amount was shown as a cash benefit to the recipient, not a food stamp benefit. Since then, steps have been taken to correct the error, however, at no time did the recipient actually have this amount in her account.

Overall, EBT has contributed to reducing fraud by creating an audit trail which helps pinpoint illegal transactions. It also allows recipients as well as retailers to be identified and sanctioned for trafficking violations using the transaction data. EBT States continue to expand their use of the data and to refine the techniques associated with analysis of transaction data.

In addition to these advantages of EBT, we continue to assist States in reducing the causes of overpayment and underpayment error, including identifying "best practices" by low error States. We are also expanding our use of the existing databases to identify and remove prisoners, deceased persons, and cases of duplicate participation from the rolls, and to follow up with sanctions and recoupment of overpayments, as necessary. Another tool in the collection of overpayments is the Treasury Offset Program (TOP), which is responsible for a growing percentage of total collections by intercepting tax refunds an other payments otherwise due the overpaid individual

Question. On December 27, 2000, the Food and Nutrition Service placed in the Federal Register a notice of availability of research grants to improve Food Stamp Program Access through Partnerships and New Technology. These competitively awarded grants would be 100 percent funded by the Federal Government with no matching requirement. How many of these grants have been awarded?

Answer. Fourteen grants have been awarded, totaling $3.6 million.

Question. What have been the findings of the research projects funded by these grants?

Answer. As the program has only recently been initiated, it is too soon to report findings. However, grant recipients are required to submit periodic progress reports, and at the end of the two year grant period, final reports will be submitted assessing the impact of the grant projects.

Question. Does the Department support continued funding for these research grants?

Answer. The Department's 2002 request includes the base funding from which these grants were funded in 2001. A decision on how best to utilize these funds will be determined following the enactment of our appropriations for 2002, and will take into consideration the success of these activities to date, and other potential activities.

CHILD NUTRITION PROGRAMS

Question. The President's Budget suggests an increase of $2,000,000 to enhance integrity in the National School Lunch Program (NSLP). How would this funding be used to enhance the integrity of the NSLP?

Answer. The $2,000,000 requested would be used to improve the integrity of the NSLP by exploring potential improvements to the process used by schools and school districts to certify students for free and reduced price meals. FNS is seeking ways to provide these benefits to needy children without providing them to non-needy children, and doing so in a manner that is manageable for schools operating the NSLP.

FNS is operating a number of pilot projects designed to test alternative approaches to the existing NSLP application and verification process. The agency's current plan is to use a significant portion of the requested funding to collect information on income from a sample of parents whose children are in pilot schools, along with a sample of parents whose children are not in pilot schools, in order to provide an independent source of income data to compare to the application process. While this remains, in our judgment, the best option for using this funding to enhance NSLP integrity, USDA intends to continue to gather information from the pilots and other sources on this important issue. Our ongoing work with State officials and other Federal agencies continues to reveal new opportunities for system improvement. By the time of final appropriation, it may be more appropriate to focus these resources on activities that begin to address the issue operationally.

Question. What is the estimated cost of each activity?

Answer. The proposed income data collection analysis and reporting described above would cost roughly $1.5 million, but could range as high as $2.0 million. As noted previously, we intend to reassess our efforts as the pilot projects and other information-gathering continues, and consider using these funds for promising strategies to improve operations, as appropriate.

Question. The School Breakfast Pilot Program is now fully funded. Please provide the Subcommittee with an update on this pilot program.

Answer. Work on the pilot is progressing well. The six participating school districts were announced on May 15, 2000. Elementary schools within each school district were paired and randomly assigned to the control (regular School Breakfast Program) or treatment (universal-free breakfast program) group. Seventy control and 73 treatment school units are participating in this project.

Implementation of the universal-free breakfast program began in School Year 2000–2001. Five of the six selected school districts began implementation at the start of the school year; the sixth began implementing the universal-free breakfast program at the end of October, 2000.

The evaluation contractor, Abt Associates, Inc. a Cambridge, Massachusetts research firm, was competitively selected to conduct the evaluation, and the contract was awarded on June 26, 2000. Abt is currently collecting first-year implementation data in the six school districts. Data is being collected on about 30 students from each school for a total of 4,290 students. Student outcome measures include achievement test scores, cognitive performance scores, classroom behavior, attendance and dietary intakes. Program operations data, including implementation methods and operating costs, are also being collected.

Administrative data will be collected during School Years 2001–2002 and 2002–2003. Follow-up implementation data will also be collected during the third year of implementation (School Year 2002–2003). An interim project report will be available in Summer 2002, and the final report in Summer 2004.

SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC)

Question. On December 11 of last year, President Clinton issued a memorandum on improving immunization rates for children at risk. In that memorandum, agencies were directed to "include a standardized procedure as part of the WIC certification process to evaluate the immunization status of every child applying for WIC services using a documented immunization history." While the WIC program has served an appropriate role in child immunization screening and referral, a policy that might make WIC certification contingent on immunizations or require WIC clinics to evaluate and be held accountable for every participating child's immunization status could prove too burdensome and impose potential troubling liability issues on WIC caseworkers. What is the status of USDA's efforts to implement this Presidential directive?

Answer. As directed by the Executive Memorandum, USDA is working with the Centers for Disease Control and Prevention (CDC) to ensure that the actions outlined in the Presidential directive are taken in a manner "consistent with the mission" of each agency. A partnership consisting of USDA, CDC, the National Association of WIC Directors, American Academy of Pediatrics (AAP), Association of State and Territorial Health Officials, Association of Immunization Managers, and Every Child By Two is providing guidance and assistance to implement current and future WIC immunization linkages to meet the directives of the Executive Memorandum.

A draft policy memorandum, written in collaboration with partners, was distributed to partners and State WIC agencies for comment in February 2001. The policy memorandum outlined procedures for immunization screening and referral in the WIC Program, as directed by the Executive Memorandum. In response to comments, the policy memorandum is being redrafted and will be issued in June 2001. The policy memorandum makes it clear that (1) WIC certification is not contingent on immunization status or the attainment of immunization records, and (2) as an adjunct to health services, the WIC Program's role in immunization screening and referral is to support existing funded immunization activities. Increased WIC involvement in immunization screening and referral should not result in reduced efforts or costs incurred for immunization services and programs that have primary responsibility in this area.

The policy memorandum includes a minimum screening protocol, developed in conjunction with CDC and AAP, specifically for use in WIC Programs where children are not screened and referred for immunizations by other means. The purpose of the minimum screening protocol is to identify children who may be at risk for under immunization. It is not meant to fully assess a child's immunization status, but allows WIC to effectively fulfill its role as an adjunct to health care by ensuring that children who are at risk are referred for appropriate care. In State or local areas with documented vaccination coverage rates 90 percent or greater in WIC children by 24 months of age, there will be no requirement to implement the procedures set forth in the policy memorandum.

Through a "Dear Colleague" letter to its State immunization program grantees, CDC will ensure that Immunization Programs coordinate with WIC to provide the following: cooperative planning and budgeting that supports WIC screening and referral; adequate and appropriate referral information and networks; training of WIC staff; and other activities necessary to ensure that a comprehensive screening and referral system is in place that supplements WIC's limited role and responsibility in this area.

Question. What is the status of the Department's efforts to seek reimbursement from other agencies for health care services provided through the WIC program?

Answer. A partnership consisting of USDA, Centers for Disease Control and Prevention, National Association of WIC Directors, American Academy of Pediatrics, Association of State and Territorial Health Officials, Association of Immunization Managers, and Every Child By Two is finalizing a National strategic plan to improve immunization coverage rates of children participating in WIC. One of the goals of the strategic plan is to obtain adequate funding and/or reimbursement for WIC immunization activities so that WIC funds and staff time available for nutrition services are not reduced.

The Food and Nutrition Service (FNS) issued a WIC Cost Allocation Guide in November 1999 as a resource for WIC State and local staff. The guide describes accept-

able methods to ensure that a State or local agency's WIC Program grant or subgrant is only charged for WIC's fair share of allowable costs.

Question. The fiscal year 2002 budget requests continued funding for WIC electronic benefit transfer (EBT) systems. What is the status of WIC EBT efforts? What has been accomplished with the additional funding provided for this purpose for fiscal year 2001?

Answer. Currently, there are 14 WIC State agencies at various stages of planning, developing, and implementing EBT systems. This includes 1 State agency that has nearly completed statewide roll-out, 3 States with operational EBT pilot systems, 2 States preparing to launch pilots before the end of 2001, 2 States preparing to launch pilots in 2002, and 6 States preparing to launch pilots in 2003. Fiscal year 2001 funds for WIC EBT will be used for up-front development costs, and will be awarded through a competitive grant proposal and evaluation process to WIC State agencies that have made significant progress toward implementing EBT systems.

Question. What is the status of the draft proposed rule on the WIC food prescription (package)?

Answer. The Department has drafted and entered into clearance a proposed rule addressing changes in the WIC food packages. The rule is currently awaiting review by policy officials of the Bush Administration.

Question. What is the status of the scientific examination of the WIC food prescription anticipated to be undertaken under the auspices of USDA's Western Human Nutrition Research Center?

Answer. Further work on this project was suspended pending policy review by the Bush administration. Before continuing the study, the new team needs to determine the extent to which the study can and will fill the scientific gaps. We will be taking a look at this when we are fully staffed.

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE FEDERAL ADMINISTRATION AND SPECIAL RESEARCH GRANTS

Question. Please provide a description of the research that has been funded under the Federal administration/special research grant.

Answer. Sent to the Senate under separate cover.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research. (For extension activities: What is the national, regional, or local need for this project?)

Answer. Sent to the Senate under separate cover.

Question. What was the original goal of the research and what has been accomplished to date? (For extension activities: What was the original goal of this program and what has been accomplished to date?)

Answer. Sent to the Senate under separate cover.

Question. How long has this work been underway, and how much has been appropriated, by fiscal year through fiscal year 2001, for this work?

Answer. Sent to the Senate under separate cover.

Question. What is the source and amount of non-Federal funds provided, by fiscal year?

Answer. Sent to the Senate under separate cover.

Question. Where is the work being carried out?

Answer. Sent to the Senate under separate cover.

Question. What was the anticipated completion date of the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Sent to the Senate under separate cover.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Sent to the Senate under separate cover.

COOPERATIVE STATE, RESEARCH, EDUCATION, AND EXTENSION SERVICE SUSTAINABLE AGRICULTURE RESEARCH

Question. For fiscal year 2002, the Congress provided increased funding for sustainable agriculture to focus on organic farming to serve an expanding and increasingly active constituency of producers and consumers. Can you give the Committee an update on this new initiative?

Answer. The increase in fiscal year 2001 funding over fiscal year 2000 for the Sustainable Agriculture Research and Education, SARE, program has been used for a range of high-priority projects in accordance with the guidance from the Senate appropriations report, which stated, in response to the targeting of the SARE increase to organic agriculture in the fiscal year 2001 President's Budget:

"Increased funds provided for sustainable agriculture research and education should include, but in no way be limited to, projects on organic agriculture. While organic production practices are included under the umbrella of sustainable agriculture, it is critical that funding increases be directed also to research on broader sustainable agriculture production systems and practices. The Committee also directs the Department to allocate a portion of funding increases to on-farm demonstration and producer-research projects."

The increased funds are being used to support some projects in organic agriculture, particularly in the SARE southern region, which established organic agriculture as one of five priority areas for fiscal year 2001 competitive grants, and which held a region-wide training conference on organic agriculture for Extension and other agricultural professionals. Competitive grant projects in other regions that could not have been supported, had fiscal year 2001 funding not increased, include several on crop and market diversification in both field crops and specialty crops, sustainable production of crops including cotton and tomatoes, several projects in the Pacific Islands, and a project to encourage farmer-directed research and networking.

Increased support of on-farm, producer-led research is taking place not only through the last project noted above, but also through increased allocations toward producer grants in each region, either in fiscal year 2001 or planned for fiscal year 2002. In addition, the SARE Northeast region is allocating SARE Professional Development Program—Extension—funds to increasing the interaction of Extension and other agricultural professionals with producers engaged in SARE-sponsored on-farm research, and the SARE Southern region is piloting a program of on-farm research grants targeted at Extension agents and other agency and private-non-profit personnel who work closely with farmers in on-farm research.

Other uses of the increased Extension funds in the SARE Professional Development Program include a partnership with the Extension Indian Reservation Program to enhance sustainable agriculture professional development with Native American communities, and competitive grant projects on a range of professional development topics ranging from assisting private landowners with resource-conserving management practices, to producing and marketing ethnic and specialty vegetables. Additional resources are also being targeted to enhance program evaluation.

NATIVE AMERICAN INSTITUTIONS ENDOWMENT FUND

Question. Beginning in fiscal year 2001, 1994 Institutions were given the authority to use funds available from the Native American Institutions Endowment Fund to support facility infrastructure. How many of the 1994 Institutions have elected to use these funds for facility requirements?

Answer. The Conference Report states, "For the Native American Institutions Endowment Fund authorized by Public Law 103–382 (7 U.S.C. 301 note), $7,100,100: Provided, That hereafter, any distribution of the adjusted income from the Native American Institutions Endowment Fund is authorized to be used for facility renovation, repair, construction, and maintenance, in addition to other authorized purposes." The 1994 Institutions have expressed strong interest in using the adjusted income from the Native American Institutions Endowment Fund for facility requirements. The fiscal year 2001 adjusted income from the Endowment Fund will not be available until late in the year. Thus, these funds will be available for facility requirements after the end of fiscal year 2001 and beyond.

1890 LAND-GRANT INSTITUTIONS

Question. Provide a list, by 1890 Institution, of the renovation and construction projects funded in fiscal year 1999 and fiscal year 2000, the funds provided for each, and the amount required in future years to complete the project.

Answer. Awards are made for the acquisition and improvement of agricultural and food sciences facilities and equipment, including libraries, so that the 1890 land-grant institutions and Tuskegee University may participate fully in the production of human capital in the food and agricultural sciences. These activities are ongoing and are proposed in a five-year plan of work. The table below indicates the past, current and proposed appropriations to complete activities under the current five-year plan of work.

[The information follows:]

1890 FACILITIES

	Fiscal year—					Total
	1998	1999	2000	2001	2002	
Alabama A&M University	$403,755	$449,013	$666,710	$675,111	$675,111	$2,869,700
Tuskegee University	403,755	449,013	666,710	675,1 1 1	675,111	2,869,700
University of Arkansas at Pine Bluff	387,818	430,036	658,969	666,395	666,395	2,809,613
Delaware State University	310,482	337,479	621,209	623,880	623,880	2,516,930
Florida A&M University	408,640	454,830	669,083	677,783	677,783	2,888,119
Fort Valley State University	4.18,874	502,73.1	688,627	699,788	699,788	3,039,811
Kentucky State University	497,465	560,587	712,229	726,362	726,362	3,223,005
Southern University	379,624	420,281	654,989	661,914	661,914	2,778,722
University of Maryland Eastern Shore	356,775	393,076	643,890	649,419	649,419	2,692,579
Alcorn State University	392,395	435,487	661,192	668,898	668,898	2,826,870
Lincoln University	495,381	558,109	711,217	725,223	725,223	3,215,153
North Carolina A&T State University	511,065	576,736	718,817	733,779	733,779	3,274,176
Langston University	399,604	444,071	664,694	672,841	672,841	2,854,051
South Carolina State University	394,830	438,385	662,374	670,229	670,229	2,836,047
Tennessee State University	455,003	510,031	691,604	703,140	703,140	3,062,918
Prairie View A&M University	570,689	647,775	747,798	766,411	766,411	3,499,084
Virginia State University	430,885	481,317	679,888	689,950	689,950	2,971,990
Subtotal	7,247,040	8,088,960	11,520,000	11,686,234	11,686,234	50,228,468
Federal Administration	301,960	337,040	480,000	486,926	486,926	2,092,852
Total	7,549,000	8,426,000	12,000,000	12,173,160	12,173,160	52,321320

AGRICULTURE IN THE CLASSROOM

Question. Please provide a description of expanded outreach activities being financed with the additional funds provided for fiscal year 2001 for the Agriculture in the Classroom program.

Answer. The additional funding for fiscal year 2001 for the Agriculture in the Classroom program was exceptionally helpful in broadening the reach of the program across the Nation. New initiatives were chosen in close collaboration with the National Agriculture in the Classroom Consortium. Ongoing outreach activities that were strengthened include the annual Agriculture in the Classroom National Conference, the Agriculture in the Classroom web site, and catalyzing State Agriculture in the Classroom Directors to play a more active leadership role. The additional funding also served new outreach activities, as follows:

Four sets of teaching materials were developed to support the Listening to the Prairie education program developed by the Agency's Sustainable Agriculture Research and Extension staff in collaboration with the Smithsonian Institution. The Listening to the Prairie display will tour selected libraries throughout the Nation over the next two years. The teaching materials will be used by elementary, middle school, and high school teachers whose classes visit the traveling display.

Work was begun on the development of a comprehensive scientific and educational review of teaching materials and preparation of a Resource Guide for Agriculture in the Classroom Teachers. The Guide will reduce redundancy, increase the use of high quality teaching materials, and assure that teaching materials are scientifically sound, educationally appropriate, and meet new and enhanced State learning standards

Funds will be used in cooperation with the White House Office of Science and Technology Policy, and the Office of the Science and Technology Adviser to the Secretary of State to develop outreach activities for Global Science and Technology Week, May 6–12, 2001. To highlight the international nature of science and the importance of math and science education in today's era of globalization, a special edition of the "Agriculture in the Classroom Notes Newsletter" was prepared and distributed, a mobile science laboratory visited a Washington, DC elementary school,

career opportunities in the food and agricultural sciences were highlighted, and acknowledgment of the work of the Classroom teachers provided by a Nobel Laureate was distributed.

Funds were also committed to support education research to determine the effectiveness and impacts of Agriculture in the Classroom programs in five States. This work will determine characteristics of successful and effective programs, and will be used to further develop and strengthen Agriculture in the Classroom in states desiring to expand their programs.

RURAL HEALTH

Question. Please give the Committee an update on the Louisiana and Mississippi rural health projects.

Answer. The Rural Health and Safety Education Extension Project funds health and safety education in Mississippi and Louisiana. These programs are recruiting students to the health professions and promoting rural practice by new health care providers to mitigate health risk factors.

CURRENT ACTIVITIES

In Mississippi, the Mississippi State University Extension Service coordinates the Mississippi Rural Health Corps with the state's 15 community and junior colleges. The purpose of the endeavor is to improve rural health through the education of Mississippi residents and the training of health care professionals in rural practice. Various health and economic development related organizations, in the public and private sectors, have worked with the Corps in support of its goals.

A variety of educational outreach activities provide the foundation for this program. The cornerstone of the program, training of nurses and allied health professionals, provides scholarships/loans to students willing to commit themselves to a period of service in rural Mississippi upon graduation. In addition, health education, the development of community-based healthcare coalitions, the Rural Medical Scholars program, and the Rural Health Explorers program have been instrumental in strengthening the health sector of Mississippi. This program also works with the Mississippi Rural Health Association to improve the health status of rural Mississippians.

A Community College Network connects the state's community and junior colleges, the Mississippi Extension Service, and the University of Mississippi Medical School. This technology connects multiple sites to conduct administrative and educational activities.

The Nurse Managed Family Care Center program conducted by Southern University and A & M College addresses health promotion and disease prevention for vulnerable populations residing in rural and inner city communities in southern Louisiana. This program is a collaborative effort of the Extension Service and the School of Nursing at Southern University. Services offered include health assessments, health training, teaching, and other health-care professional referrals. The services are provided through a nurse-managed center in a non-traditional setting—center and a mobile health unit. The mobile unit serves persons in a 50-mile radius of the School of Nursing. Quality, cost-effective, community-based primary health care services are being offered where graduate nurse faculty, nursing students, and physicians located in community health outreach centers assist women, children, and the elderly in understanding and utilizing self-care health practices.

Services include: physical examinations, childhood vaccinations, height and weight, blood pressure, and vision screenings. Health education is provided to participants to enhance health promotion and disease prevention by increasing self-care capabilities. Health education topics include nutrition, safety, breast self-examination, dental health, hypertension, and diabetes.

ACCOMPLISHMENTS

In fiscal year 2000, 426 scholarship/loans were made to nursing and allied health professional students enrolled in the state's community college system and 6 loans were awarded to community college nursing faculty members seeking advanced degrees. The loan recipients must commit themselves to a period of service in rural Mississippi upon graduation. Project funds provide a portion of the faculty salaries for the Mississippi Rural Health Corps. Through health education, skills training programs reach youth, parents of young children, adults with chronic diseases, and elder caregivers. Annually, the health education programs reach 60,000 families. Youth have improved their decision making skills related to health issues and adults have learned how to deal effectively with emergencies and practice family

safety. The Corps has facilitated the formation of more than 30 community-based health care coalitions.

Two newer additions to the Mississippi program include the Rural Medical Scholars and the Rural Health Explorers programs for youth. The Rural Medical Scholars program works with high school students who have an interest in being physicians in rural Mississippi. Students participated in a 6-week residential experience at Mississippi State University. The students completed two pre-med courses, "shadowed" physicians, and attended a lecture series for aspiring physicians.

The Scholars program has been expanded to include a Rural Health Explorers component for high school students with a more general interest in health care careers. The Explorers take one course, either anatomy or physiology, tour hospitals, interact with health care professionals, and talk with community college representatives about academic requirements for health care careers.

In Louisiana, the Nurse Managed Family Health Care Center served 400 Headstart students. In addition, 250 clients received health screening, health teaching, follow-up and referral services.

This program provides clinical settings for faculty and students. In this setting, research is generated and students and faculty can test nursing theories and models of practice. This project has strived to develop culturally appropriate educational materials and delivery methods. Graduates of the nursing program are better prepared to work with vulnerable population groups and function effectively in a variety of rural and inner-city settings.

Funds Distribution

The Rural Health and Safety Education Extension Program is funded at $2,517,329 for fiscal year 2001. The Mississippi Rural Health Corps—Mississippi State University Extension Service—program receives about $2.1 million of the total. Funds under this project will be used for salaries/wages, fringe benefits, college scholarships/loans, the Rural Medical Scholars program, the Rural Health Explorers program, the Community College Network, and administrative costs such as equipment, materials and supplies, travel, and publication/printing costs.

The Southern University and A & M College Nurse Managed Family Health Care Center program receives about $0.4 million. Funds under this project will be used for salaries/wages, fringe benefits, equipment, materials and supplies, travel, and publication/printing costs. Both projects show 100 percent match with non-Federal funds.

Question. With each case of food borne illness costing $1,300 in medical expenditures and lost productivity it is easy to understand why food safety is seen as a top priority for the Cooperative State Research, Education, and Extension Service. Please provide a listing of the food safety research projects funded through the Special Grants, National Research Initiative, Fund for Rural America, and Initiative for Future Agriculture and Food Systems programs in each of fiscal years 1999, 2000, and 2001. Include a description of the research work and the cost of the research project?

Answer. The Food Safety Program is a competitive and special grant program that consists of several components. A list of projects grouped by component is provided for the record.

[The information follows:]

Institute	Title	Amount
SPECIAL RESEARCH GRANTS—1999		
University of Arkansas; Iowa State University; Kansas State University	Animal Science Food Safety Consortium	$1,423,047
Kansas State University	Ecology of E-coli 0157:H7 in Beef Cow-Calf Operations from Ranch Through Feedlot	198,347
Iowa State University	Operation of Food Irradiator	187,120
University of Georgia	Alliance for Food Protection	140,340
The Pennsylvania State University	Milk Safety	233,900
SPECIAL RESEARCH GRANTS—2000		
University of Arkansas; Iowa State University; Kansas State University	Animal Science Food Safety Consortium	1,414,830
Kansas State University	Ecology of E-coli–0157:H7 in Beef-Cow Operations from Ranch Through Feedlot	198,326
University of Georgia	Alliance for Food Protection	140,325
Iowa State University	Operation of Food Irradiator	187,100
Pennsylvania State University	The Penn State fiscal year 2000 Milk Safety Research Program	278,311
University of Alaska-Fairbanks	Seafood Quality and Safety Program Projects	327,425
SPECIAL RESEARCH GRANTS—2001		
University of Arkansas; Iowa State University; Kansas State University	Animal Science Food Safety Consortium	1,527,684
Cornell University	Food Safety Consortium, New York entitled: "Listeria monocytogenes subtyping database for control of foodborne listeriosis"	266,592
Kansas State University	Ecology of E-coli 0157:H7 in Beef-Cow Operations from Ranch Through Feedlot	197,871
Iowa State University	Operation of Food Irradiator	210,004
University of Georgia	Alliance for Food Protection	140,003
North Dakota State University	Intelligent Quality Sensors (IQS) for Safe Food Products	132,535
The Pennsylvania State University	The Penn State fiscal year 2001 Milk Safety Research Program	350,007
NATIONAL RESEARCH INITIATIVE—1999		
Chapman University	Irradiation in a Combination Approach to Enhance Vegetable Safety	128,000
University of Delaware	Recalcitrance of Clostridium perfringens to High Hydrostatic Pressure Processing	95,000
University of Florida	Are Virulent Strain-Specific DNA Sequences of Vibrio vulnificus Essential for Virulence?	150,000
University of Georgia	Inactivation of Pathogens on Alfalfa Seeds Treatments for Fresh Produce	114,319
University of Georgia	Improving Pathogen Decontamination	185,000
University of Hawaii	Genetic Markers and Pathogenisis Features of Listeria monocytogenes serotype	220,000
University of Idaho	Identifying Factors that Promote Clearance of E. coli. 0157:H7 from Cattle	265,000
Illinois State University	Molecular Mechanisms of Psychrotrophy in Listeria monocytogenes	253,000
Purdue University	Molecular Biology of Fumonisin Biosynthesis in Gibberella fujikuroi	100,000
Kansas State University	Ecological Distribution of E. coli. 0157:H7 Strains in Agricultural Environments	210,000

Institute	Title	Amount
U.S. Food and Drug Administration	Characterization of Multiple Fluoroquinolone Resistance Among Bacterial Pathogens	157,000
Mississippi State University	Detection of Viable Enterohemorrhagic Escherichia coli using Polymerase Chain Reaction and RNA-based Polymerase Chain Reaction	111,000
University of Nebraska	Extrusion Processing as a Means of Reducing Fusarium Mycotoxins in Cereal Foods	128,000
Rutgers; The State University of New Jersey	A Membrane Fluidity Model for Sensitivity of Foodborne Pathogens to Preservatives	230,405
Cornell University	Specific Detection and Typing of Vibrio parahaemolyticus serotype 03:K6	110,065
Cornell University	Novel Strategies for Determining Thermal Destruction of Mycobacterium paratuberculosis	87,784
Cornell University	Transmission of Listeria monocytogenes in Food Systems	192,000
North Carolina State University	Modeling Bacterial Pathogen/Biocontrol Competition with Changing Temperature	117,369
North Carolina State University	A Salmonella-based Vaccine to Prevent E.coli 0157:H7 Infection in Cattle	200,000
North Carolina State University	Characterization of Genes Regulating Aflatoxin Biosynthesis	220,000
The Ohio State University	Development and Validation of Instruments to Evaluate Food Safety Education	200,000
University of Rhode Island	Optical Biosensor Detection of Food Pathogens Based on Direct Measurement of Antibody/Antigen Binding	180,000
Clemson University	Evaluation of Jenseniin G as a Potential Food Preservative	90,000
Virginia Polytechnic Institute & State University	Mechanism of Pathogen Survival During Microwave Thermalization	123,000
Washington State University	Molecular Characterization of the Campylobacter jejuni Adhesin to Fibronectin	195,000
University of California	Ecologic Assessment of Salmonella Enteritidis var Typhimurium in a Dairy Milk Shed	600,000
Colorado State University	New Methods for Risk Analysis of Infectious Animal Diseases Affecting Food Safety	359,515
University of Georgia	Following Resistant Salmonella Through The Food Chain: A Molecular Ecology Approach	814,564
University of Illinois	Molecular Epidemiology of Salmonella Transmission in Swine Production Systems	885,294
Michigan State University	Risk Factors for Samonella and Campylobacter Infections and Drug Resistance in Dairy Cattle	765,447
University of North Carolina	Microbial Contamination of Produce: A Field Study in the Lower Rio Grande	416,572
The Ohio State University	Ecology of Antimicrobial Resistance of Enteric Salmonella and E. coli in Cattle Operations	771,868
The Ohio State University	Dynamics of Campylobacter Transmission on Poultry Farms	384,284
Washington State University	Effect on Water Chlorination on Prevalence of E.coli 0157:H7 and Campylobacter in Feedlot Cattle	325,528
University of South Alabama	Novel Molecular Approaches to Eradicating E. coli 0157 From the Bovine GI	230,810
University of Arizona	Effect of Phagosome Activities on Campylobacter jejuni pathogenesis	250,000
University of Arkansas	Immunoelectrochemical/Optical Biosenser with a Capillary Bioseparator/Bioreactor for Rapid Detection of Pathogens in Poultry and Meat Products.	130,000
University of California	Factors Affecting Colonization of Plants By Human Pathogenic Bacteria	275,000
University of California	DNA Adenine Methylase Mutants of S. typhimurium as Modified Live Vaccines in Calves	310,000
University of Delaware	Mortality Kinetics of Bacterial Populations Exposed to High Pressure	230,000
University of Florida	Microbiological Safety of Citrus Fruit For Juice Processing	200,000
University of Florida	Phase Variation and Expression of Capsular Polysaccharide in Vibrio vulnificus	260,000
Iowa State University	Persistent Colonization by E. coli 0157:H7 in Ruminants	185,000
University of Illinois	Genetic Determinants of Salmonella in Chickens and Mice	195,000
University of Illinois	Sources of Genetic Resistance to Reduce Fumonisin in Corn-based Foods	175,000
New England Medical Ctr.	The Effect of Antibiotics on Shiga toxin Phage Movement in Ruminants	240,000
University of Maryland	Characterization of Multiple Antibiotic Resistance Among Enterohemorrhagic Escherichia coli	250,000

University of Maine	A Sensitive, Accurate and Rapid Method for Detection of Foodborne Pathogens	180,000
Michigan State University	Incorporating Humidity into Microbial Inactivation Models for Convection Cooking of Meats	130,000
Michigan State University	Genetics of Zearalenone Biosynthesis and Grain Colonization by Gibberella zeae	200,000
North Carolina State University	RNA Aptamers for Food Safety Diagnostics	145,000
North Dakota State University	Safety Food Preservation	60,000
University of Nebraska	Genetics and Ecology of E. coli 0157	215,000
Bowling Green State University	Identification of Salmonella adhesins for colonization of chickens	135,000
University of Tennessee	The Role of Catabolite Repression in Closstridium perfringens Food Poisoning	240,000
Texas A&M University	Verification of Safe Cooking Endpoints in Beef and Pork by Multiple Antigen ELISA	150,000
Texas A&M University	Minimizing Salmonella Enteritidis Invasion During Induced Molting	79,190
University of Wyoming	LC/MS Equipment Research Enhancement For Department of Veterinary Sciences	50,000
University of Illinois	Epidemiology and Ecology of Antibiotic Resistance Determinants on Dairy Farms	1,391,326
University of Nebraska	A Novel Strategy to Test and Monitor Beef Feedlot Food-Safety Control Points	953,735
New England Medical Center	National Pediatric Diarrhea Surveillance Study	937,473
Kansas State University	Epidemiological Aspects of Combining E. coli 0157:H Control Programs and Feedlot Performance	231,483
University of Minnesota	Food-Borne Antibiotic-Resistant and Extraintestinal Pathogenic E. coli	542,357

INITIATIVE FOR FUTURE AGRICULTURE AND FOOD SYSTEMS—2000

University of Georgia	Safe Produce Production Using Manure	560,000
Texas A&M University	Improving the Safety of Fruits and	4,100,000

SPECIAL RESEARCH FOOD SAFETY GRANTS 1999 (Competitive)

University of Arizona	Role of irrigation water in contamination of Import and Domestic Fresh Food	275,000
University of Arkansas	An Electrochemical Method to Destroy Pathogenic Bacteria in Brine Chilling Water for Cooked Poultry and Meat Products	194,668
University of Arkansas	Non-destructive rinse sampling—Immunoblot quantitation of RTE foods for bacterial pathogens	160,000
California Polytechnic State University	Processing Parameters and GMPs for Optimal Application of Ozone in Food Processing	117,648
National Food Processors Association Foundation	Quantitation of Listeria monocytogenes In Ready-to-Eat Foods and Risk Assessment	340,000
University of Georgia	Validation of jerky processing for Small-Scale and Home Processors	92,763
Iowa State University	Characterization of Antimicrobials and Risk Assessment of Listeria monocytogenes on Hot Dogs	275,000
Iowa State University	Real-Time Detection of Fecal and Ingesta Contamination	151,876
Kansas State University	Post-process Pasteurization of Packaged, Ready-to-eat Meat Products for Control of Listeria monocytogenes	124,026
Michigan State University	A time-temperature integrator to validate Salmonella destruction in beef patties	184,807
University of Minnesota	Control of Calicivirus Contamination of Fresh Fruits and Vegetables in Food Service Establishments	210,000
University of Minnesota	Use of bacteriocins to control food-borne Pathogens in Vegetables	157,136
Nebraska Agricultural Experiment Station	CCP Identification and Validation During Poultry Production and Processing	249,481
Rutgers University	Implication of Manure and Irrigation Water on contamination of Produce in the Field	188,422
Cornell University	Survival of Foodborne Pathogens in Untreated Manure and Manure Applied to Soil	151,684
North Carolina State University	Human Disease Risk from RTE Foods Contaminated by Poor Handling Practices	377,503

Institute	Title	Amount
Oklahoma State University	Lactobacilli to Control Salmonella & E. coli 0157:H7 in Fresh Cut Produce	69,619
Clemson University	In-package pasteurization and food grade Film Agents for Pathogens on Meat Products	145,984
Texas A&M University	Contamination During Production of Domestic and Imported Cabbage and Melons	263,920
Virginia Polytechnic Institute & State University	Surface Sampling and Ultraviolet Light Treatment of Raw Produce	185,575
University of Wisconsin	Sensitization of E. coli 0157:H7 on Fruits and Vegetables to Halogenated Sanitizers	149,191
University of Wisconsin	Critical Limits for Land-Spread Manure To Ensure Vegetable Crop Safety	163,193
University of Wyoming	Control of Foodborne Pathogens in Minimally Processed Ready-to-Eat Meatproducts	88,019
FOOD SAFETY AND QUALITY NATIONAL INITIATIVE—1999		
American Samoa Community College	Expanding Food Safety Education in American Samoa	30,000
Auburn University	Food Safety Education for 4–H Groups in Alabama	30,000
Alabama A&M University	Training Food Handlers in Elderly Care Facilities Using HACCP	30,000
Tuskegee University	Church-Based Food Safety Education for Rural African American Youth	30,000
University of Alaska, Fairbanks	FSQ–POW—Telephone Outreach and Publication Development	30,000
University of Arkansas	Safe at the Plate-Food Safety Programs for Arkansas	30,000
University of Arkansas at Pine Bluff	HACCP/Safe Food Capacity Building Project	30,000
University of Arizona	Safe Food 2000—Food Safety and Quality	30,000
University of California	Developing Food Safety Ed. Programs Sanitation & Food Handler Training	30,000
The University of California	Food Animal Residue Avoidance Databank (FARAD)	200,000
Colorado State University	Colorado Food Safety and Quality Education Program	30,000
University of Connecticut	1999 Food Safety POW Projects	30,000
Delaware State College	Enhancing Seafood Safety and Quality in Delaware	30,000
University of Delaware	Food Safety Education of Youth and Foodservice Employees	30,000
University of the District of Columbia	DC Coalition for Food Safety Education	30,000
University of Florida	The Florida Food Safety and Quality Plan of Work	30,000
University of Florida	Food Animal Residue Avoidance Databank (FARAD)	100,000
Florida A&M University	A Food Safety Education Program for Florida Consumers	30,000
Fort Valley State	Peach County Food Safety Education and Training Program	30,000
University of Georgia	Food Safety and Quality Plan of Work	30,000
University of Hawaii	Improving Food Safety and Quality Through Ed. Prgms. & Technology	30,000
University of Idaho	Food Safety Education for Idaho Consumers	30,000
University of Illinois	Cooking Meat Safe Program	30,000
Purdue University	Maximizing the Effectiveness of Food Safety Training in Indiana	30,000
Iowa State University	Web-Based Food Safety & HACCP Ed. for Foodservice Operators	30,000
Kansas State University	Kansas Food Safety Plan of Work Projects	30,000
University of Kentucky	Statewide Food Safety Campaign From Farm to Table	30,000
Louisiana State University	Food Safety and Quality Plan of Work Project	30,000
Southern University and A&M College	In-Service Food Safety & Quality Training for Ext. Field Staff & Volunteers	30,000

University of Maine	Food Safety POW Ed./Resources-Maine (Food Safety Power/Maine)	30,000
University of Maryland	A Food Safety Mgmt. Program—Processors, Food Handlers, & Educators	30,000
University of Massachusetts	Food Safety Educ.: Solving Problems through Practice & Partnership	30,000
Michigan State University	Food Safety Education for Consumers and Food Professionals	30,000
College of Micronesia	Reduction of Food-Borne Illness in Palau	30,000
University of Minnesota	Minnesota Food Safety Plan of Work	30,000
Mississippi State University	Food Safety Certification for Permitted Food Service Establishments	30,000
University of Missouri	Missouri Outreach Plan of Work 1999–2000	30,000
Lincoln University	FS&Q POW Proposal—Food Safety and You	30,000
Montana State University	Montana's Food Safety Education in Training	40,000
University of Nebraska	Enhancing HACCP Implementation in Nebraska Food Systems	30,000
University of Nevada	Food Safety Self-Study Module	30,000
University of New Hampshire	New Hampshire Food Safety Programs—From Farm to Table	30,000
Rutgers University	The Development of a Good Agricultural Practices Training Program	30,000
New Mexico State University	HACCP & Food Safety Ed. for Restaurant Managers & Employees	30,000
Cornell University	Providing Safe Food for the Homeless and Destitute	30,000
North Carolina A&T State University	North Carolina Food Safety Education Program for the Youth	30,000
North Carolina State University	Communicating Food Safety Concepts	30,000
North Carolina State University	Food Animal Residue Avoidance Databank (FARAD)	200,000
North Dakota State University	Food Safety Education for North Dakota Handlers	30,000
Northern Marianas College	Handle the Safe Way	30,000
Ohio State University	HACCP-Based Food Handler Training for Ohio	30,000
Oklahoma State University	Food Safety and Quality Plan of Work Project	30,000
Oregon State University	Oregon Plan for Promoting Food Safety	30,000
Pennsylvania State University	Enhancing the Safety of the Pennsylvania Food System	30,000
University of Puerto Rico	Food Safety and HACCP Education	30,000
University of Rhode Island	Food Safety Education Program	30,000
Clemson University	Continuation of Food Safety Education in South Carolina	30,000
South Carolina State University	Reducing Foodborne Illness Among the Elderly and Farmers	30,000
South Dakota State University	Applied Food Safety Ed. Programs for Middle & High School Youth	40,000
University of Tennessee	HACCP Training for Food Svc. & Train the Trainer for County Faculty	30,000
Texas A&M University	Reaching the Foodservice Industry & Youth with Food Safety Education	30,000
Prairie View A&M University	Reduction of Food-Borne Illness	30,000
Utah State University	Plan of Work for Food Safety in Utah: Farm to Table	30,000
University of Vermont	Food Safety Vermont, 2000	30,000
VPI & State University	Food Safety For Farmers, Processors, Distrs., Consumers & Inspectors	30,000
Washington State University	Food Safety Education in Washington State	30,000
West Virginia University	Food Safety in West Virginia	30,000
University of Wisconsin	Food Safety Ed. & Training for Small-Farm Apple Processing Industry	30,000
University of Wyoming	Food Safety and Quality Plan of Work Project	30,000

Institute	Title	Amount
NATIONAL INTEGRATED FOOD SAFETY INITIATIVE—2000		
University of Alaska-Fairbanks	Simplifying HACCP: An Interactive Software Prgm. for CCP Analysis of Recipes	50,000
Auburn University	Ethnic/Cultural Food Safety/Preservation Training Program S.D. Tribal Colleges	100,000
Tuskegee University	An Education and Outreach Center on Food Safety for Small Processors	100,000
University of Arkansas	Operation Food Safety—Arkansas Public Schools	49,483
University of Arizona	HACCP for Small and Very Small Meat and Poultry Processors in Arizona	99,988
University of California	California Small Farm Food Safety Project	181,291
Colorado State University	Food Safety Works: A Certificate Training Program for Welfare to Work	53,966
University of Connecticut	Food Handler Education and Training for Hispanic Consumers and Youth	100,000
University of Connecticut	Food Safety Distance Education and Training	59,902
University of the District of Columbia	Food Handler Education for Small Non-Commercial Service Agencies	60,000
University of Florida	A National Science and Education Conference: Toward Implementing the ''Guide to Minimize Hazards on Fresh Fruits''	39,500
University of Florida	National Food Safety Database for Food Safety Information and Program Evaluation	52,500
University of Georgia	National Center for Home Food Preservation	280,000
University of Georgia	Food Handler Education for Consumers and Youth Using Fight Bac! Video Curricula	248,911
University of Illinois	Partnership for Food Safety Certification Over the Worldwide Web	59,330
Purdue University	Food Safety Education for High-Risk Audiences: Prenatal to Preschool	100,000
Iowa State University	Web-Based Reporting System: Indicator Facilitation for Food Safety & Quality Program	40,000
Kansas State University	Veterinarian HACCP Training Program for Reducing ON-Farm Foodborne Pathogens	59,811
Kansas State University	Food-A-Syst for Food Producers and Home Food Preparers	100,000
University of Kentucky	Development of Comprehensive HACCP Technical Support System	135,000
Southern Univ. and A&M College	Circle of Food Safety for Children, Families, and Communities	60,000
Michigan State University	HACCP Curriculum for Bay Mills Community College	50,000
Michigan State University	Fresh Juice HACCP Alliance and Train-the-Trainer Program	109,090
Michigan State University	Food Handler Educational Training for Consumers and Youth in Poultry Areas	99,850
College of Micronesia	Reducing Waterborne Disease in the Marshalls	24,390
University of Minnesota	Woodlands Wisdom: Holistic Approach to Food Safety Education	99,980
University of Minnesota	Preserving Food Safety	9,865
University of Minnesota	Keep It Hot, Keep It Cold	21,767
Alcorn State University	Establish a Food Safety/Quality Assurance Prgm. for Small-Scale Farmers & Cooperatives in Mississippi	88,200
Lincoln University	Fresh Fruit and Vegetable Safety for Small Missouri Farms	87,376
University of Nebraska	Food Safety and Limited Resources Management Collaborative Education Program	57,106
University of Nebraska	HACCP Implementation/Mgmt. for Small Meat & Food Processors in 4 Midwest States	200,000
New Mexico State University	Trilingual (Navajo, Spanish and English) Games and Interactive Activities for Fight Bac! Outreach to Hard-to-Reach	100,000
New Mexico State University	Navajo Food Safety—Pesticide Safety, Integrated Pest Mgmt. & Livestock Quality	94,130
Cornell University	An Internet Based Distance Education Seafood HACCP Alliance Training Program	51,378
Cornell University	Reducing Microbial Risks in Fruits/Vegetables with Good Agricultural Practices in US	731,481
North Carolina State University	Development of Food Safety Educ. Prgm. for Congregate Nutrition Site Participants	23,811

Ohio State University	A HAACP-Based Plan for Ensuring Food Safety in Distribution, Shipping, and Retail Establishments	119,650
Ohio State University	Program Indicators and a Web-Based Reporting System for the FSQ Initiative	75,960
Oregon State University	Development and Delivery of HACCP Models for the Vegetable Sprout Industry	97,599
Oregon State University	Native American Storytelling Teaches Food Safety in Oregon and Alaska	86,287
University of Tennessee	Web-Based Food Safety Training to Vocational High School Teachers	52,693
Tennessee State University	Are They Effective for African American? Food Safety Messages	59,950
Texas A&M University	System Food Safety Education for Retail Employees	53,626
Virginia Polytechnic Institute and State University	Train-the-Trainer in SQF 2000: An Integrated HACCP Program	100,000
Washington State University	HACCP Training and Development for the Lopez Island Food Processing Center	8,992
West Virginia University	Unsafe Temperatures in Home Refrigerators	19,000
University of Wisconsin	Linking Food Safety to Farm-A-Syst/IPM to Reduce Microbial/Pesticide Risks in Apples	150,000
University of Wisconsin	A National Risk Assessment Tool for Consumer Food Safety	100,000

USDA EPSCOR

Question. Please provide a chart listing, by state, the number of proposals submitted to each of the USDA EPSCoR award areas, and the number of those proposals which received funding for each of the past three fiscal years.

Answer. A list of EPSCoR awards by state is provided under the National Research Initiative Competitive Grants Program—NRICGP.

[The information follows:]

NRICGP STRENGTHENING STATISTICS

	1998		1999		2000	
	Proposals	Awards	Proposals	Awards	Proposals	Awards
AK:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Seed	0	0	2	0	1	1
Standard	1	0	1	1	1	0
AL:						
Sabbatical	0	0	0	0	0	0
Equipment	1	1	3	3	0	0
Seed	4	1	1	0	1	1
Standard	4	0	4	0	1	1
AR:						
Sabbatical	1	0	0	0	0	0
Equipment	3	1	3	0	2	1
Seed	3	3	5	1	6	0
Standard	12	3	12	2	16	6
CA:						
Sabbatical	1	1	0	0	0	0
Equipment	2	1	2	0	0	0
Seed	1	1	0	0	0	0
Standard	4	1	10	7	1	0
CO:						
Sabbatical	0	0	1	1	0	0
Equipment	0	0	0	0	0	0
Seed	1	1	0	0	0	0
Standard	1	0	3	0	3	2
CT:						
Sabbatical	1	1	0	0	0	0
Equipment	0	0	2	2	1	0
Seed	3	0	4	4	2	2
Standard	15	4	7	4	7	1
DC:						
Sabbatical	0	0	0	0	1	1
Equipment	0	0	0	0	0	0
Seed	0	0	0	0	0	0
Standard	2	0	1	1	1	1
DE:						
Sabbatical	0	0	0	0	0	0
Equipment	1	0	1	1	1	1
Seed	4	2	3	0	4	1
Standard	7	1	8	4	3	1
FL:						
Sabbatical	1	1	0	0	0	0
Equipment	0	0	1	0	0	0
Seed	3	0	1	0	0	0
Standard	2	0	2	0	2	0
GA:						
Sabbatical	0	0	0	0	0	0
Equipment	1	1	2	0	1	1
Seed	2	0	2	0	2	2
Standard	0	0	3	1	3	1
HI:						
Sabbatical	0	0	0	0	0	0
Equipment	1	1	2	1	2	2
Seed	2	0	5	0	3	2

NRICGP STRENGTHENING STATISTICS—Continued

	1998		1999		2000	
	Proposals	Awards	Proposals	Awards	Proposals	Awards
Standard	4	1	5	4	4	1
IA:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Seed	2	0	3	1	1	1
Standard	0	0	1	0	0	0
ID:						
Sabbatical	0	0	0	0	0	0
Equipment	3	2	3	3	1	1
Seed	3	1	0	0	2	1
Standard	10	6	10	4	5	2
IN:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Seed	0	0	2	0	1	0
Standard	0	0	0	0	0	0
IL:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	6	3	1	1
Seed	1	0	0	0	1	0
Standard	1	0	2	0	1	0
KS:						
Sabbatical	0	0	0	0	0	0
Equipment	3	1	0	0	0	0
Seed	0	0	1	0	0	0
Standard	0	0	1	1	1	0
KY:						
Sabbatical	0	0	0	0	1	1
Equipment	2	0	0	0	1	1
Seed	0	0	0	0	3	2
Standard	0	0	3	0	15	6
LA:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	1	0
Seed	1	0	2	0	0	0
Standard	2	0	2	0	1	0
MA:						
Sabbatical	1	1	0	0	1	0
Equipment	0	0	0	0	0	0
Seed	1	0	2	0	1	1
Standard	0	0	3	1	4	0
MD:						
Sabbatical	0	0	1	0	0	0
Equipment	1	1	0	0	0	0
Seed	1	0	1	0	1	0
Standard	2	1	2	0	1	0
ME:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	1	1	1	1
Seed	5	2	4	2	1	0
Standard	0	0	12	4	7	3
MI:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	2	0	0	0
Seed	1	1	1	0	1	0
Standard	1	0	3	1	1	0
MN:						
Sabbatical	0	0	0	0	0	0
Equipment	1	1	1	0	0	0
Seed	3	0	1	0	0	0
Standard	0	0	2	0	2	0
MO:						
Sabbatical	0	0	0	0	0	0

NRICGP STRENGTHENING STATISTICS—Continued

	1998		1999		2000	
	Proposals	Awards	Proposals	Awards	Proposals	Awards
Equipment	1	1	1	0	0	0
Seed	3	1	2	1	1	0
Standard	0	0	2	2	2	0
MP:						
Sabbatical	0	0	0	0	0	0
Equipment	1	1	0	0	0	0
Seed	1	0	0	0	0	0
Standard	1	0	0	0	0	0
MS:						
Sabbatical	0	0	0	0	0	0
Equipment	2	1	4	4	1	1
Seed	10	2	8	2	3	1
Standard	9	1	7	2	5	1
MT:						
Sabbatical	2	2	0	0	0	0
Equipment	1	1	4	2	5	4
Seed	7	4	4	3	7	5
Standard	8	0	5	3	10	4
NC:						
Sabbatical	1	0	1	1	0	0
Equipment	1	1	0	0	0	0
Seed	3	2	7	3	2	0
Standard	2	0	2	1	2	0
ND:						
Sabbatical	1	0	0	0	0	0
Equipment	5	0	6	2	3	2
Seed	5	3	6	2	3	0
Standard	7	2	7	1	9	3
NE:						
Sabbatical	0	0	0	0	.....	.....
Equipment	0	0	0	0	.....	.....
Seed	1	0	0	0	.....	.....
Standard	1	1	1	0	1	0
NH:						
Sabbatical	0	0	0	0	1	1
Equipment	2	2	3	1	0	0
Seed	5	2	4	1	0	0
Standard	3	3	3	2	5	3
NJ:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	2	0
Seed	0	0	2	0	0	0
Standard	0	0	0	0	.....	.....
NM:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	1	0	1	1
Seed	0	0	2	1	2	1
Standard	2	0	1	0	1	1
NV:						
Sabbatical	0	0	0	0	0	0
Equipment	2	1	0	0	0	0
Seed	0	0	1	1	1	1
Standard	3	2	6	1	5	1
NY:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	1	1	1	1
Seed	4	0	7	3	5	1
Standard	6	3	4	3	1	0
OH:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	2	0	0	0
Seed	2	0	3	0	2	1
Standard	1	0	2	0	1	0

NRICGP STRENGTHENING STATISTICS—Continued

	1998		1999		2000	
	Proposals	Awards	Proposals	Awards	Proposals	Awards
OK:						
Sabbatical	0	0	1	0	0	0
Equipment	1	1	5	3	1	0
Seed	0	0	1	0	0	0
Standard	0	0	0	0	0	0
OR:						
Sabbatical	0	0	0	0	0	0
Equipment	1	0	0	0	1	1
Seed	1	0	1	1	0	0
Standard	0	0	0	0	0	0
PA:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	1	0	1	1
Seed	4	2	2	0	2	0
Standard	3	1	3	0	2	1
PR:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	1	1
Seed	0	0	2	0	1	0
Standard	1	0	0	0	1	0
RI:						
Sabbatical	0	0	0	0	0	0
Equipment	4	3	6	4	2	2
Seed	5	2	1	0	2	2
Standard	4	1	5	3	4	0
SC:						
Sabbatical	1	1	0	0	0	0
Equipment	4	2	2	2	1	0
Seed	9	2	9	5	3	0
Standard	17	1	8	3	11	1
SD:						
Sabbatical	1	1	1	1	0	0
Equipment	3	2	6	2	5	3
Seed	6	1	10	2	5	2
Standard	12	1	9	1	10	3
TN:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	7	4	1	1
Seed	5	0	2	1	1	0
Standard	3	2	1	1	1	0
TX:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	1	1	1	0
Seed	4	0	3	1	2	0
Standard	2	0	0	0	5	3
UT:						
Sabbatical	0	0	2	1	0	0
Equipment	1	1	2	2	0	0
Seed	4	1	5	2	0	0
Standard	7	1	12	3	0	0
VA:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Seed	1	0	0	0	0	0
Standard	0	0	2	0	2	0
VI:						
Sabbatical	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Seed	1	0	0	0	0	0
Standard	0	0	0	0	0	0
VT:						
Sabbatical	1	1	0	0	0	0
Equipment	1	1	0	1	1	1

NRICGP STRENGTHENING STATISTICS—Continued

	1998		1999		2000	
	Proposals	Awards	Proposals	Awards	Proposals	Awards
Seed	4	2	4	2	2	2
Standard	2	0	6	3	3	2
WA:						
Sabbatical	0	0	0	0	0	0
Equipment	2	1	1	1	1	1
Seed	0	0	0	0	0	0
Standard	0	0	0	0	0	0
WI:						
Sabbatical	1	0	0	0	0	0
Equipment	0	0	0	0	1	0
Seed	2	0	3	0	2	1
Standard	0	0	3	1	2	1
WV:						
Sabbatical	0	0	1	0	0	0
Equipment	0	0	3	1	2	2
Seed	4	1	6	2	3	1
Standard	8	3	3	3	0	0
WY:						
Sabbatical	1	0	1	1	0	0
Equipment	1	0	1	0	5	3
Seed	2	0	1	1	4	2
Standard	3	1	1	1	9	3

ECONOMIC RESEARCH SERVICE

Question. In the President's budget an increase is requested to continue the retail meat purchase price reporting system in which a large portion of the increase is for data purchase from retailers. How do you plan on protecting the confidentiality of the retailers that the information is being purchased from?

Answer. Ensuring data confidentiality has been an important goal from the start of the project to collect retail scanner data. In order to reassure stores about the confidentiality of this process, the initial data collection and processing will be handled by a third-party contractor. Many stores now sell scanner data to market information firms who process the data and re-sell statistics to food and package-good manufacturing firms. This contractor will provide us with summary statistics, not individual store data. There will be no way to identify firm-level information from the data received from the third-party contractor. Information will be further analyzed and summarized before it is posted to the ERS website for public consumption.

Question. Can you elaborate on the development of additional information regarding retail price measurements and price transmissions between retail, wholesale, and the farm level.

Answer. The Mandatory Livestock Price Reporting Act of 1999 requires USDA to provide better information on the average prices paid for cuts of meat and the sales volume moving through grocery stores. Currently, the only public source of retail food prices is the Bureau of Labor Statistics (BLS). This information is limited and the efforts of the Economic Research Service will provide better price information on retail meats. According to ERS, the price reporting system will significantly improve the quality of price measurement at the retail level. We will know more about price transmissions from wholesalers to grocery stores, but at this point efforts are not focused on improving price data from the farm to wholesale level. Early research on price transmission should identify whether the new retail price data shows a different pattern of price adjustment than retail prices calculated using BLS procedures.

The present data-collection systems do a poor job of tracking meat products once they leave the wholesale level. Currently, we do not know how much meat goes to retail grocery stores versus other areas, such as food service or exports. According to ERS, the new process of using grocery store scanner data is designed to better capture the average price that consumers pay for meat cuts. For instance, BLS prices are recorded as of a particular point in time and no adjustments are made to prices for a variety of consumer discounts, which are captured through scanner data. Also, price data collected by BLS is not associated with quantities sold. Not only will the scanner data provide better data on meat prices, it will provide data on the weight and type of cuts of meat. Thus, the new process will weight the prices

by sales volume. Consumers are likely to buy less of a product when its price is high than when it is low. We expect that the average price paid for meat cuts will be lower using this method than the average price reported by BLS for meat cuts.

Question. Do you foresee any shortfalls in the implementation of this program if new funds are not provided.

Answer. Without new funding, we would be unable to purchase data and improvements to price reporting would be limited. The kind of data required to improve price reporting as intended by the Mandatory Price Reporting Act is available only from commercial sources. Commercial purchase of data on retail prices and quantities of variable weight meat products will be the largest part of the annual expenses—approximately $1 million per year.

Question. For the past three years the Economic Research Service (ERS) has been given the responsibility to manage the research program for the nation's food assistance programs. With a $3 million decrease in funds proposed in the fiscal year 2002 budget, how will this affect the ongoing research programs carried out by ERS and how will it affect full-time equivalent (FTE) personnel requirements?

Answer. The President's budget for fiscal 2002 proposes to split the research funds with the Food and Nutrition Service (FNS) so that FNS can undertake necessary short-term programmatic information collections, policy studies and budget analyses. FNS studies are highly targeted and typically address a narrow program or policy related issue that are best handled by the program agency. This change will not affect ERS staffing because those researchers who would have been monitoring outside contracts will be redirected to high priority internally conducted research.

Question. Will there be a need to improve coordination between the Economic Research Service and the Food and Nutrition Service given the proposed sharing of research program monies?

Answer. While there will continue to be a need to closely coordinate research between the two agencies, we anticipate that this split will actually reduce the especially high degree of coordination needed for the short-term, highly programmatic studies that are currently being directed by the Economic Research Service.

Question. How does ERS prioritize the research projects it conducts for other USDA agencies and other organizations with the agency's normal workload?

Answer. In developing its research program, ERS attempts to anticipate the program and policy issues that USDA agencies will likely have to confront in the near future. ERS also seeks input from a broad constituency of policy officials, researchers, practitioners, advocates, industry groups, and service providers, and hosts a series of round-table discussions with representatives of these constituents to identify crucial research and policy information needs.

Question. What are the research priority areas for fiscal year 2002?

Answer. In general, ERS priorities include, among others, improving our understanding of the effects of trade agreements on agricultural markets, improving the effectiveness of polices designed to ensure a safe food supply, assessing the impacts of alternative farm production management systems and analyzing market trends for genetically modified crops. I will have ERS supply more specific information for the record.

[The information follows:]

Assessing the adaptation of the U.S. food and agricultural sector to changing market structure and post-WTO and post-NAFTA trade conditions. This includes analyzing factors that drive change in the structure and performance of domestic and global food and agriculture markets, and analyzing how global environmental change, international trade agreements, and foreign trade restrictions affect U.S. agricultural production, exports, imports, and income. A critical component of analysis of the implications of rapid structural change in food and agricultural markets is the ERS request for funding to improve the price reporting of meat products.

Building the analytical and empirical base for improving the efficiency and effectiveness of public policies and programs designed to protect consumers from unsafe food. This includes analyzing the benefits of safer food, such as reducing direct medical costs and indirect costs associated with productivity losses from foodborne illnesses caused by microbial pathogens, and estimating the costs of alternative food safety policies.

Analyzing factors affecting dietary changes and trends in America's eating habits, including impacts on agricultural producers and the structure of the food industry, and providing economic evaluations of nutrition and food assistance programs, such as factors determining changes in Food Stamp program participation. The three research emphases for food assistance and nutrition studies conducted under the Food Assistance and Nutrition Research Program (FANRP) are diet and nutrition out-

comes, food program targeting and delivery, and program dynamics and administration.

Assessing the profitability and environmental impacts of alternative farm production management systems, including the cost-effectiveness and equity dimensions of public sector conservation policies and programs. ERS is also putting increased priority on understanding and analyzing trends in adoption of genetically modified crops and the emergence of markets for both genetically modified and non-genetically modified commodities.

Identifying how investments, technology, employment opportunities and job training, Federal policies, and demographic trends affect rural America's capacity to prosper in the global marketplace. This includes analysis of rural financial markets and how the availability of Federal credit, public spending, taxes, and regulations influence rural economic development.

Conducting the economic analysis required to support litigation of the Pigford Consent Decree which is from a class action lawsuit that alleges racial discrimination of USDA farm loan and benefit programs. ERS' role, for which it is requesting an increase of 600,000 is to generate an objective estimate of economic damages in each particular case using a consistent, understandable, and defensible methodology that is based on standardized farm accounting procedures.

Question. How much ERS research is conducted in-house and how much is contracted out?

Answer. The ERS research program is predominantly an in-house program supplemented with a number of small cooperative agreements with land-grant university researchers, with the exception of the food assistance research program. Currently, about 80 percent of the food assistance research is conducted outside the agency and 20 percent is conducted in-house.

AGRICULTURE RESEARCH

Question. What is the specific program rationale for terminating the following research projects being carried out by the Agricultural Research Service?

Bioinformatics	$474,000
Biobased technology	284,000
Biomass-based energy	900,000
Citrus canker	4,740,000
Citrus tristeza	740,000
Exotic pest diseases	1,247,000
Pierce's Disease	1,896,000
Avian Leukosis—J Virus	250,000
Fusarium Head Blight	798,200

The Committee notes that these research initiatives are budgeted also as increases in the fiscal year 2002 request.

Answer. The first seven items on the list are Special Research Grants funded under CSREES. No funding is proposed for these Special Research Grants in the fiscal year 2002 Cooperative State Research, Education, and Extension Service budget request. This action is consistent with the Administration's belief that the most effective use of taxpayer dollars is through competitively-awarded, peer-reviewed grants that meet National goals. Alternate funding from formula programs, State and local governments, and private sources could be used to support aspects of this program deemed to be of a priority at State and/or local levels.

The last two items on the list are Agricultural Research Service projects. A Congressional program increase of $249,450 for research on avian leukosis J virus (an emerging virus infection that causes cancer-like-disease and production problems in chickens) was approved in fiscal year 2001. This increase was not included in the President's Budget for fiscal year 2002. Plans are to use available resources on research issues of higher national priority. ARS does, however, have an ongoing research program on avian retroviruses including avian leukosis J virus at the ARS Avian Diseases and Oncology Laboratory in East Lansing, Michigan. This ongoing research program will continue to provide necessary research information that will help the poultry industry in their efforts to control this important disease.

A Congressional program increase of $798,200 for research on Fusarium Head Blight was approved in fiscal year 2001. This increase was not included in the President's Budget for fiscal year 2002. Plans are to use these available resources on research issues of higher national priority.

Question. What is the status of each of the ARS projects funded for fiscal year 2001? In many cases, ARS is to hire scientists to implement the research required under the Act. By project, what is the status of hiring new scientists?

Answer. ARS plans to hire approximately 100 additional scientists in order to implement increases provided in 2001 for budget initiatives and new projects established by Congress. The status of new ARS scientists being hired due to all fiscal year 2001 increases is provided for the record.

[The information follows:]

STATUS OF SY RECRUITMENT

[Fiscal Year 2001 Increase]

Location	Job title	Recruitment status
Ithaca, NY	Cat 4 Bioinformatics	Certificate issued 5/8/01.
Leetown, WV	Research Geneticist (Animal)	Vacancy announcement closed 3/20/01.
Wyndmoor, PA	Chemist/Food Technologist	Position description is being finalized; Selection has been made.
Beltsville, MD ANRI/FTSL	Microbiologist/Food Technologist	Vacancy announcement closes 6/11/01.
Beltsville, ANRI/FTSL	MD Microbiologist/Food Technologist	Vacancy announcement closes 6/25/01.
Beltsville, MD ANRI/ISL	Agricultural Engineer	Completed. Filled by internal reassignment Biomed. Eng.
Wyndmoor, PA	Research Chemist	Readvertisement closed 4/19/01; Certificate issued 4/24/01.
Beltsville, MD ANRI/AMBL	Research Chemist	NPS disapproved proposed position Description 5/8/01. Supervisor is Making changes.
Plum Island, NY	VMO and Microbiologist	Tentative effective date of 7/10/01. Microbiologist. Action pending.
Montpellier, France	Entomologist	Position description being prepared.
Beltsvillle, MD PSI/CAIBL	Research Chemist	Recruitment action received. Selection made.
Leetown, WV	Research Physiologist	Certificate issued 4/4/01.
Orono, ME	Soil Scientist	Certificate issued 4/16/01.
University Park, PA	Soil Scientist/Agronomist	Recruitment action pending
Frederick, MD	Plant Pathologist	Certificate issued 5/7/01.
Kearneysville, WV	Plant Geneticist/Molecular Biologist/Plant Pathologist.	Certificates issued 4/16/01 and 5/9/01.
Beltsville, MD ANRI/PBSEL	Research Molecular Biologist	Vacancy announcement closed 5/7/01.
Ithaca, NY	Ecologist	Selection effective 2/11/01.
Beltsville, MD Nat'l Arb/F&N	Research Agronomist	Position moved to the National Arboretum. Supervisor is writing the position description.
Struttgart, AR	Research Fishery Biologist	Certificate issued 4/13/01.
Athens, GA	Veterinary Medical Officer	Student trainee to be converted (pending graduation)
New Orleans, LA	Agricultural Engineer	Recruitment action initiated.
Winter Haven, FL	Research Chemist	Closed 4/9/01; SME reviewing applications.
Auburn, AL	Molecular Biologist/Microbiologist	Selection made; EOD 6/3/01.
Miami, FL	Research Geneticist	Selection made; EOD 11/5/00.
Starkville, MS	Res. Plant Pathologist/Physiologist	Selection made; EOD 9/10/01.
Las Cruces, NM	Research Textile Technologist	Selection made; EOD 4/22/01.
Las Cruces, NM	Agricultural Mechanical Engineer	Certificate issued 3/28/01.
Booneville, AR	Research Animal Scientist	Drafting vacancy announcement
Athens, GA	Res. Food Tech/Agricultural Engr.	Certificate issued 4/6/01.
Athens, GA	Res. Food Tech/Agricultural Engr.	Announcement closes 5/29/01.
College Station, TX	Microbiologist	Selection made; EOD 3/11/01.
Athens, GA	Microbiologist	Certificate issued 2/26/01; interviews being conducted.
Lubbock, TX	Microbiologist	Certificate issued 4/13/01.
Athens, GA	Research Physiologist	Certificate issued 4/6/01.
Athens, GA	Res. Plant Pathologist/Microbiologist	Closed 3/26/01; SME reviewing applications.
Little Rock, AR	Immunologist	Closed 5/25/01.
Florence, SC	Soil Scientist	Selection made; EOD 4/22/01.
Gainesville, FL	Research Entomologist	Certificate issued 3/30/01.
Auburn, AL	Soil Scientist/Res. Agon./Res. Hydr	Readvertised; Closed 4/30/01; Certificate issued 5/11/01.
Stoneville, MS	Res. Geneticist/Animal Scientist	Selection made; EOD pending receipt Of PhD in September 2001.

STATUS OF SY RECRUITMENT—Continued

[Fiscal Year 2001 Increase]

Location	Job title	Recruitment status
Tifton, GA	Research Plant Pathologist	Certificate issued 4/5/01.
Las Cruces, NM	Rangeland Scientist/Ecologist	Closed 5/25/01.
Las Cruces, NM	Research Plant Physiologist	Closed 5/25/01.
Las Cruces, NM	Research Hydrologist	Selection made; EOD 5/6/01.
Las Cruces, NM	Range Scientist	Selection made, EOD 4/22/01.
Stoneville, MS	Research Entomologist	Readvertised; closed 6/15/01.
Stoneville, MS	Research Geneticist (Plants)	Selection made; tentative EOD 8/26/01, pending ad hoc panel.
Stoneville, MS	Research Plant Pathologist	Certificate issued 3/23/01.
Stoneville, MS	Research Geneticist (Plants)	Certificate issued 3/29/01.
Lubbock, TX	Research Plant Physiologist	Certificate issued 3/29/01.
Lubbock, TX	Soil Scientist/Microbiologist	Certificate issued 3/27/01.
MS State, MS	Agronomist	Selection made; EOD 6/17/01.
Stoneville, MS	Research Biologist (Weed Ecology)	Certificate issued 4/6/01.
Ft. Pierce, FL	Microbiologist/Res. Plant Pathologist	Closed 6/4/01.
Ames, IA	Veterinary Medical Officer	Announcement being drafted.
Ames, IA	Microbiologist	Recruitment period extended.
Ames, IA	Entomologist	Announcement closed 6/1/01.
Ames, IA	Immunologist	Filled.
Peoria, IL	Genet/Mycotox./Plant Pathologist	Closed 6/9/01.
Peoria, IL	Biochemist/Molecular Biologist	Closed 6/15/01.
E. Lansing, MI/Avian Disease (Listed under Headquarters).	Geneticist	Closed 5/18/01.
W. Lafayette, IN	(2) Positions—Crop Production	No recruitment action initiated.
Madison, WI	Soil Scientist	Announcement closes 7/2/01.
Madison, WI	Chemist	Announcement closed 6/4/01.
Albany, CA	Research Chemist/Res. Entomologist	Announcement closing date extended to 5/14/01.
Albany, CA	Ecologist	Certificate Issued 2/27/01.
Albany, CA	Research Chemist	Vacancy announcement sent to target location for clearance before recruitment action initiated.
Albany, CA	Microbiologist	Certificate Issued 5/1/01.
Parlier, CA	Plant Pathologist	No recruitment action has been initiated.
Parlier, CA	(2) Entomologist	No recruitment action has been initiated.
Pullman, WA	Research Plant Pathologist	Certificate Issued 4/27/01.
Pullman, WA	Veterinary Medical Officer	Vacancy announcement sent to targetlocation for clearance before recruitment action initiated.
Fresno, CA	Soil Scientist	Certificate Issued 3/7/01.
Davis, CA	Research Gen./Phy.	Announcement closed 6/1/01.
Prosser, WA	Research Gen.	Certificate Issued 4/9/01.
Aberdeen, ID	Geneticist	No recruitment action initiated.
Hilo, HI	Research Horticulturist	Announcement closed 4/2/01.
Burns, OR	Rangeland Scientist	Selection made; EOD 4/8/01.
Pullman, WA	Research Plant Pathologist	Announcement closed 5/7/01.
Clay Center, NE	Bioinf./Comp. Spec.	No recruitment action initiated.
Logan, UT	Bee Research	No recruitment action initiated.
Fargo, ND	Geneticist	Announcement closed 5/21/01.
Fargo, ND	Gen./Plant Pathologist	No recruitment action initiated.
Clay Center,	NE Microbiol./VMO	Certificate Issued 2/21/01.
Ft. Collins, CO	Weed Sci./Ecologist	Vacancy reannounced. Closed 6/11/01.
Sidney, MT	Entom./Weed Sci.	Recruitment pending.
Grand Forks, ND	Geneticist	No recruitment action initiated.

Question. Describe current research and funding for Foot-and-Mouth Disease (FMD). What are your priority research issues? What progress has been made to date on each research project?

Answer. Current ARS research priorities are: 1) development of highly specific and rapid diagnostic technology, and 2) development of a vaccine that can be deployed in case of an outbreak. The current ARS funding for the Foot-and-Mouth Dis-

ease research program is $5,230,800. ARS has developed and is currently validating a highly specific nucleic acid on-site detection technology that allows minimally trained personnel using a briefcase-sized device to definitively identify FMD virus on the farm within an hour. This on-site technology can also be adapted to screen imported carcasses for animals that have been previously infected with FMD and also for animals that have been vaccinated against the disease. ARS will test two promising vaccine candidates. The first is a synthetic peptide vaccine produced by a company on Long Island, New York. The technology is based on research conducted by ARS scientists at Plum Island Animal Disease Center (PIADC) over the past 20 years. The company indicates that this vaccine protects swine and has been selling the product in Taiwan and China. ARS is currently proposing to work with this company to examine the vaccine's protective ability for cattle and sheep and to determine if the virus is carried by vaccinated animals that were later exposed to infection. This peptide vaccine would be the only readily available product should the U.S. urgently need to vaccinate animals with a type of virus vaccine not present in the North American Vaccine Bank. The second candidate vaccine is an ARS-developed adenovirus vectored (genetically engineered) FMD vaccine that has been shown to protect swine in laboratory studies. This work will be extended to tests in cattle and sheep to determine if all species are protected. These vaccines differ in several features and need to be compared for efficacy, particularly for their ability to protect under outbreak conditions.

CSREES provides only limited funding for research directly focused on the virus itself through the National Research Initiative which must go to the ARS facility at Plum Island. In addition, CSREES has funded four additional projects related to FMD which are primarily focused on economic impacts of the disease and the evaluation of potential management response systems that might be employed in the event of an outbreak of FMD. Three of these projects are funded through Formula Funds—Hatch and Animal Health—and one with funds from the National Research Initiative. All of the projects are located at the University of California-Davis.

Question. How are U.S. Foot-and-Mouth Disease research, control and eradication activities coordinated with those of Great Britain, Canada and others? Have these countries applied the same technologies and strategies as would the U.S. under similar circumstances?

Answer. ARS research supports the regulatory activities of APHIS in control and eradication of FMD. ARS also has collaborative research with Great Britain and other nations. ARS is developing new rapid diagnostic capabilities to test for FMD and is working with Great Britain to evaluate the technology. ARS coordinates its vaccine research with APHIS priorities for vaccines. ARS conducts collaborative research with several nations that have endemic FMD including South Africa to develop new vaccines that can be produced in those nations.

APHIS coordinates its Foot-and-Mouth Disease program with many countries. The Agency has provided a support role to Great Britain during its most recent outbreak. In general, APHIS coordinates its animal health activities with other member countries of the International Organization of Epizootics (OIE). The OIE is the internationally recognized standard-setting body for diagnostic testing and vaccines. Through this organization, APHIS also helps to establish international guidelines for surveillance and monitoring. Great Britain and other members of the World Trade Organization abide by the standards of the OIE.

In the countries of the Western hemisphere, APHIS actively coordinates FMD research, control, and eradication activities. Mexico and the U.S. have had a joint commission since 1948, with an APHIS co-director stationed in Mexico City. APHIS also works closely with Canada through the North American Animal Health Committee. The two countries do test exercises and perform outbreak scenarios where they recently tested their vaccination programs. Mexico, Canada, and the U.S. share the North American Vaccine Bank, which contains many prevalent strains of FMD ready in the event of an outbreak in any of the three countries.

Due to the threat of FMD coming overland, APHIS maintains bilateral agreements with each country of Central America. In Panama, APHIS performs FMD laboratory testing, monitoring, and surveillance activities through the US-Panama Cooperative Program for the Prevention of Foot-and-Mouth Disease, with the goal of preventing outbreaks from coming in from Colombia.

In South America, where FMD is endemic, APHIS is involved in bilateral as well as regional programs to prevent FMD. APHIS has been working in Colombia on maintaining a barrier for FMD on the Panama-Colombia border. The Agency also supports the hemispheric plan, based on Bolivia, Brazil, Ecuador, Peru, and Venezuela working together to eradicate FMD. Eradicating FMD from the hemisphere would greatly reduce the risk of an outbreak in the United States.

Question. Should the U.S. find FMD within its borders next week, how would APHIS and other agencies utilize and deploy existing research detection and vaccine technologies? What actions would the U.S. implement?

Answer. If APHIS were to confirm an outbreak of FMD in the United States, APHIS would respond according to the Agency's FMD response plan. Because specific outbreak situations vary, and each State's emergency response capabilities differ, APHIS' FMD response plan is designed to be flexible and dynamic. APHIS' FMD response plan taps State and Federal resources as available, and allows the Agency's animal health expertise and coordination skills to fill any remaining gaps. After identification of disease subtype, APHIS would activate the FMD vaccine bank, order vaccine doses, and consider using the vaccine as a tool in our eradication effort. APHIS would also work with the Agricultural Research Service (ARS) to transfer technology from the laboratory which has been proven to be useful in our response effort, to the field. An example of this technology is the use of rapid detection tests.

Upon the initial confirmation of FMD, APHIS and State officials would immediately begin investigating the source and trace all animals that may have come into contact with the disease. These officials apprise both State and Federal officials on the status of their investigation and will also initiate emergency response efforts at the State and local level. These measures include notifying State agriculture and, if necessary, public health officials of the disease detection, securing the biosecurity of the affected site including depopulating the whole herd, establishing and maintaining animal movement quarantines, and alerting officials in neighboring States.

APHIS would expect to pay fair market value for all animals, products, or articles destroyed as part of an FMD eradication program. Additionally, the Agency would pay for certain directly associated costs like cleaning and disinfection of affected premises and care and feed for vaccinated animals until they are destroyed, should we employ that eradication tool. The basic principle is to ensure that owners do not have to incur out of pocket costs or suffer the loss of the value of their animals. The policy would cover animals, products, or articles we must destroy regardless of where we find them.

Question. Your budget recommends an increase of $5 million for Bovine Spongiform Encephalopathy (BSE), or "Mad Cow Disease" which, to date, has had a devastating impact on Great Britain and Europe. Have USDA scientists been engaged in research collaboration with these countries concerning these outbreaks? What actions would the U.S. take under similar circumstances?

Answer. ARS has no research effort specifically targeted to the unique problem of Bovine Spongiform Encephalopathy (BSE). ARS scientists at the Animal Disease Research Unit (ADRU) in Pullman, Washington are currently collaborating with their counterparts at the National Center for Foreign Animal Disease, Winnipeg, Canada and the Veterinary Laboratories Agency in Weybridge, U.K. and USDA–APHIS to validate reagents that potentially can be used for BSE surveillance. These reagents, which bind to the causative agent of disease (prions), were developed from research to test for scrapie, a TSE disease of sheep directly related to BSE in cattle. This test, known as the third-eyelid-test, is the only practical live animal test for scrapie disease in sheep. At the Western Regional Research Center, Albany, California, ARS has initiated a research program to develop methods to detect for the presence of ruminant proteins and central nervous system (CNS) tissue in animal foods and feeds. Prohibition of feeding ruminant derived tissues to cattle is known to be an effective way of breaking the chain of transmission of BSE disease. If a TSE of cattle (BSE) were found in the U.S., slaughter and restriction on movement of ruminants and ruminant byproducts should be based on environmental monitoring as well as conventional epidemiology and diagnostics. USDA will provide the appropriate regulatory and action agencies, and the pharmaceutical industry the tools to identify and contain any potential exposure of humans to infectious materials.

The CSREES role in the instance of an outbreak of BSE would be to provide funding to scientists in various research centers, including Federal facilities to conduct needed research as determined by mutual consultation with ARS and APHIS.

Question. USDA/ARS is funding research on Transmissible Spongiform Encephalopathy (TSE). Where is this research conducted? How much is currently spent on TSE? Please describe these programs. Are there other TSEs which we are not funding? How much funding is required to put a meaningful TSE research program in effect?

Answer. ARS conducts Transmissible Spongiform Encephalopathy (TSE) research on scrapie in sheep, and chronic wasting disease (CWD) in deer and elk, both naturally occurring TSE diseases within the U.S. This research is conducted at the National Animal Disease Center (NADC) in Ames, Iowa, and the Animal Disease Re-

search Laboratories (ADRL) in Pullman, Washington. ARS funding for this research is currently $2.6 million. The research programs focus on: (1) developing control measures for sheep scrapie and CWD through improved diagnostic tests, defining genetic (prion) susceptibility, and defining the routes of transmission through cells and secreted molecules; (2) developing and validating the nictating membrane biopsy (third-eyelid-test) for the preclinical diagnosis of scrapie in sheep; (3) determining if U.S. agents that cause Spongiform Encephalopathy in sheep and mule deer will cause a disease in cattle resembling BSE; (4) determining if the agent of CWD will cause scrapie in sheep; and (5) developing diagnostic methods that can detect TSE in live and dead animals. Currently, ARS has no research effort specifically targeted to the unique problem of Bovine Spongiform Encephalopathy (BSE) in cattle. The recently published report (May, 2001) from the ARS–BSE workshop indicated several critical research priorities that need to be immediately addressed in order to provide new tools for use in prevention and controls strategies to further reduce the risk of TSE diseases in the U.S. Current funding levels must be significantly increased in order to address these priorities. To initiate these research priorities is outlined in the agency's fiscal year 2002 budget includes an increase of $5 million for BSE research.

The following table shows research and control funds for BSE and other TSEs, by agency.

UNITED STATES DEPARTMENT OF AGRICULTURE—TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES

[In thousands of dollars]

	2000	2001 Estimate	2002 Budget
Bovine Spongiform Encephalopathy: Research: Agricultural Research Service	0	0	5,000
Control: Animal and Plant Health Inspection Service	78	78	78
Other Transmissible Spongiform Encephalopathies:			
Research:			
Agricultural Research Service	2,589	2,622	2,622
Cooperative State Research, Education, and Extension Service	325	388	294
Control: Animal and Plant Health Inspection Service	16,072	8,983	21,942
Total, USDA TSEs	19,064	12,071	29,936

Question. How does TSE and BSE differ? How much reliable information does the scientific community (here and abroad) have on BSE and TSE?

Answer. Transmissible spongiform encephalopathies (TSE's) are a family of progressive, degenerative, fatal neurological diseases that affect both animals and humans. TSE's take their name in-part from the brain lesions that these diseases cause, the lesions leaving the brain with numerous holes, giving the appearance similar to that of a sponge. The modified host protein or prion hypothesis is generally the accepted theory as regards to the nature of the infectious agents. The major animal forms of these diseases are bovine spongiform encephalopathy (BSE) in cattle, scrapie in sheep and goats, chronic wasting disease (CWD) in deer and elk, transmissible mink encephalopathy (TME), and feline spongiform encephalopathy (FSE), which is the expression of BSE in domestic cats. The human forms of these diseases are Creutzfeldt-Jacob disease (CJD), new-variant Creutzfeldt-Jacob disease (nvCJD) whose causative agent is indistinguishable from BSE, Gerstmann-Strausslaer-Scheinker syndrome (GSS) the familial form of CJD, fatal familial insomnia (FFI) an inherited TSE similar to familial CJD, and Kuru, a TSE restricted to the Fore people of New Guinea and spread by ritualistic cannibalism.

There has been considerable research effort by the scientific community to understand specific TSE's. Expert reports are available from the Council for Agricultural Science and Technology in the U.S. and the Ministry of Agriculture, Fisheries, and Food (MAFF) in the U.K. Kuru is now primarily of historical importance since cannibalism is prohibited. Although scrapie was first recognized in the U.K. and other Western countries more than 250 years ago, the means of natural transmission have still not been fully defined. It is thought to be spread most commonly from ewe to offspring and to other lambs through contact with the placenta and placental fluids. Studies have found no scientific evidence that scrapie poses a risk to human health. ARS has developed the first practical preclinical test for the disease. CWD was first

recognized in the U.S. in 1967. It naturally affects free ranging deer and Rocky Mountain elk. The origin of CWD and routes of transmission are not known. There is no reliable test for CWD in the live animal and post mortem testing involves the detection of the agent in the central nervous system. CWD is not a USDA program disease and legal tests for diagnosis of disease in clinical and preclinical deer and elk are not yet validated. BSE as a clinical disorder in cattle was first reported in the U.K. in 1986. BSE is thought to originate from contamination of feed by infectious material in meat and bone meal from rendered livestock. The infectious agent appears to be an infectious ruminant protein (Prp–sc) recycled through the rendering process. The BSE is thought to have originated in sheep and jumped the species barrier into cattle. A novel TSE of humans, nvCJD was reported in 1996. This disorder is believed to have arisen by ingestion of tissue or food products contaminated with the transmissible agent of BSE.

Despite research efforts there are still many critical questions and issues relative to TSE's. These include: determining the nature, structure and function of the TSE agents; what is the mechanism of transmission of TSE agents, and how does the species barrier to transmission of TSE's work; developing methods to detect and type TSE's both pre-clinically, postmortem, and in feeds and foods; how does TSE disease occur; how do host genetics influence TSE disease susceptibility; what is the epidemiology of TSE diseases; and can methods to inactivate the TSE agents be developed.

Question. Your budget proposes to define the nature, transmission, detection and diagnosis of BSE. Please describe in detail the planned implementation of the proposed research. Where will this research be done in the U.S.?

Answer. The ARS research implementation plan for BSE includes several projects. One set of projects is an integrated approach for improved detection of BSE and will be conducted at the ARS Animal Disease Research Unit (ADRU), Pullman, Washington and the Western Regional Research Center (WRRC), Albany, California. ARS research will: (a) validate the gold standard assay for TSEs; (b) develop a system for differentiating the TSEs endemic to North American ruminants from BSE; (c) develop methods for real-time testing of cattle in slaughter facilities; and (d) develop methods for detecting PrP–TSE (prion proteins) in materials not intended for human food. The plan includes collaboration with the National Center for Foreign Animal Disease (NCFAD), Winnipeg, Canada, to test postmortem samples and validate the final reagent set and protocol. BSE test validation will include brain samples from cattle exhibiting neurologic signs and previously examined by histology and immunohistochemistry. The ARS laboratory in Pullman, WA is also collaborating with Colorado State and Wyoming State Veterinary Diagnostic Laboratories (CS–WSVDL) for PrP–TSE detection and pathology, CJD testing, and diagnostic methods development in brain tissue from deer and elk. The CS–WSVDL will assist in validation of a live-animal test for scrapie and a preclinical test diagnostic or slaughter test. ARS is collaborating with the University of Washington to develop rodent detection assays of infectivity and with Washington State University to develop specific reagents, monoclonal antibody to PrP–TSE.

Another set of ARS projects focuses on development and validation of detection methods for TSEs in live animals and will be conducted at the National Animal Disease Center (NADC), Ames, Iowa. ARS will also determine whether imported sheep were infected with BSE or another TSE. Research will be carried out in the Virus and Prion Diseases of Livestock Research Unit at NADC in collaboration with APHIS National Veterinary Services Laboratory, Ames, Iowa and Veterinary Laboratories Agency, Weybridge, U.K. The NADC is collaborating with the Veterinary Laboratories Agency (V L.A), Weybridge, U.K., using postmortem samples to validate the final reagent set and protocol. This collaboration will provide U.S. researchers access to otherwise unavailable infected cattle and tissues.

Question. What other Federal agencies are involved in BSE and TSE research and control activities? How is ARS coordinating its research with CDC, HHS, FDA, etc.? How much money is being spent by the Federal Government for research and control activities for these diseases overall? Who is coordinating the U.S. effort in these areas?

Answer. Federal agencies that have an interest in TSE/BSE research and control include: USDA–ARS, USDA–APHIS, USDA–FSIS, CDC, FDA–CFSAN, FDA–CVM, NIH, and the Department of State. Coordination of USDA efforts is through the Office of the Secretary of Agriculture. ARS is prioritizing and coordinating its research activities with other Federal agencies through specific workshops organized at the agencies highest level. Workshop reports are circulated in a timely manner to all interested Federal agencies and stakeholders. The total funding for all Federal Government efforts is unknown, however, ARS funding for TSE research is currently $2.6 million.

With regards to specific agency involvement: ARS conducts Transmissible Spongiform Encephalopathy (TSE) research on scrapie in sheep, and chronic wasting disease (CWD) in deer and elk, both naturally occurring TSE diseases within the U.S. ARS has no research effort specifically targeted to Bovine Spongiform Encephalopathy (BSE), however, ARS scientists collaborate with their counterparts at the National Center for Foreign Animal Disease, Winnipeg, Canada, Veterinary Laboratories Agency in Weybridge, U.K. and USDA–APHIS to validate reagents that potentially can be used for BSE surveillance. USDA's Food Safety and Inspection Service inspects all cattle before they can be approved for use as human food; use of cattle with unidentified neurological diseases is prohibited. The USDA's Animal and Plant Health Inspection Service (APHIS) enforces explicit import regulations covering animals and animal products offered for import into the United States to prevent the importation of foreign exotic diseases such as BSE. USDA–APHIS prohibits the importation of live ruminants from countries where BSE is known to exist in native cattle. APHIS controls the importation of live ruminants and most ruminant products from all of Europe. APHIS also implements an aggressive BSE monitoring program examining the brains of cattle exhibiting various abnormal behaviors, including neurological symptoms. No evidence of BSE has been found in these U.S. cattle specimens.

Agencies within the Department of Health and Human Services (DHHS) have a long-standing commitment to research, epidemiological studies and consumer protection involving BSE and variant and classic CJD. The Food and Drug Administration (FDA) prohibits the use of most mammalian protein in the manufacture of animal feeds given to ruminant animals, such as cows, sheep and goats. The regulation also requires process and control systems to ensure that feed for ruminants does not contain the prohibited mammalian tissue. This prohibition is a preventative measure designed to protect animals from potential transmissible degenerative neurological diseases such as BSE and to minimize any potential risk to humans. If a case of BSE were found in the United States, these measures would also help to prevent the spread of BSE through feeds in U.S. cattle. FDA issued guidelines to blood centers to reduce the theoretical risk of transmission of vCJD to recipients of blood products. This precautionary measure recommended procedures for deferring potential donors who may have been significantly exposed to food and other cattle-derived products in BSE-endemic countries. FDA's present guidelines ask blood centers to exclude potential donors who have spent six or more cumulative months in the U.K. between January 1, 1980, and December 31, 1996, from donating blood. Further revision to this guidance may be forthcoming with new information regarding other countries' BSE experiences. FDA's TSE Advisory Committee recently offered advice on revising the guidelines to include potential donors who have lived an aggregate of 10 years in France, Ireland and Portugal. FDA also provides guidance on the use of bovine materials from countries affected by BSE in non-food products, for example gelatin from bones for oral consumption or cosmetic use. The Center for Disease Control (CDC) conducts regular surveillance for any trends and current incidence of vCJD among humans in the U.S. The National Institutes of Health (NIH) conducts research on various TSE's: BSE, CJD, vCJD and related neurological diseases through their Maryland and Rocky Mountain Laboratories. NIH has a particular interest on the molecular biology of prion protein folding and its role in the induction of TSE disease.

Question. There are a number of plant and animal diseases of critical economic importance to American agriculture. Some of these diseases have become noteworthy recently. Please provide the Committee with the current status of research projects and current funding (by Agency) for each project listed: Citrus Canker, Citrus Tristeza, Pierce's disease, Avian Newcastle disease, Bovine Tuberculosis, Johne's disease, African Swine Fever, West Nile Virus, Avian Influenza, Plum Pox Virus, Asian Longhorned Beetle and Wheat Scab.

Answer. In fiscal year 2001, $4,739,550 was appropriated for the Citrus Canker Special Research Grant. The grant proposal was received on January 30, 2001 and the proposal is undergoing programmatic review. In fiscal year 2001, $740,368 was appropriated for the Citrus Tristeza Special Research Grants. The grant proposals were due by February 15, 2001, and the proposals are undergoing programmatic review. In fiscal year 2001, $1,895,820, was appropriated for the Pierce's Disease Special Research Grant. The grant proposal was received on January 24, 2001, and is awaiting administrative review and final signature. In fiscal year 2001, $324,285, was appropriated for the Bovine Tuberculosis Special Research Grant. The grant proposal was received on March 12, 2001, and is awaiting administrative review and final signature.

Current status of research on Citrus Canker:

ARS is conducting research on citrus canker at Ft. Pierce, Florida, and Beltsville, MD, in support of regulatory and action agencies to control this devastating disease. These include: biological control methods to stop or slow the spread of the disease; molecular and genetics approaches to determine virulence factors; epidemiological methods to better understand the disease cycle and dissemination characteristics; and early detection technologies. Current fiscal year 2001 funding: $315,000.

Current status of research on Citrus Tristeza Virus (CTV):

ARS scientists at Ft. Pierce, Florida, are identifying exotic CTV strains and vectors which threaten citrus production. The biological diversity and molecular basis of pathogenicity and virulence among strains are being determined. Regulatory actions are being supported by determining the genetic, epidemiological, biochemical, and serological characteristics of CTV. Researchers at Frederick, Maryland, are studying vector transmission characteristics of CTV. ARS laboratories at Fresno, California, and Beltsville, Maryland, are examining the diversity of CTV strains and developing improved methods for maintaining and storing isolates, and determining their host range. Current fiscal year 2001 funding is $2,320,000 for all locations.

Current status of research on Pierce's Disease:

To combat Pierce's Disease and the vector transmitting it, research is being coordinated at the Horticultural Crop Research Laboratory at Parlier, California. Research includes efforts to better understand the causative bacterium's host range and potential pathogenicity for California crops, particularly grapes. Epidemiology of the disease is also being determined. Current fiscal year 2001 research funding is: $1,098,000.

Current status of research on Avian Newcastle disease:

The ARS research program on avian Newcastle is directed to: improve diagnostic tests; develop improved vaccines; determine genetic and biologic mechanisms controlling Newcastle Disease Virus (NDV) virulence; use molecular epidemiology to determine origin of NDV strains and predict geographic spread; identify and characterize molecular markers for NDV pathotyping; and determine the frequency and mechanisms for NDV persistence in clinically normal poultry. Current fiscal year 2001 funding is $786,000.

Current status of research on Bovine Tuberculosis (TB):

ARS in collaboration with industry, APHIS, other Federal agencies, and State and university cooperators developed a joint regulatory and research strategy for TB in livestock, deer, and elk. Under ARS scientific leadership, research goals were established to: (1) define interactions between cattle, white tailed deer, and elk and M. bovis; (2) develop and improve tests for diagnosis of M. bovis infection in these species; and (3) develop improved methods for strain differentiation of M. bovis isolates. ARS recently initiated research to address the diagnosis, pathogenesis, and epidemiology of TB in white tailed deer and to develop vaccines to control tuberculosis in deer. Current fiscal year 2001 funding is $1,432,000.

Current status of research on Johne's disease:

The ARS program on Johne's disease (a bacterial disease caused by M. paratuberculosis) is conducted at the Bacterial Disease of Livestock Research Unit at the National Animal Disease Center, Ames, Iowa. The program's objectives are: (1) to sequence the complete genome of M. paratuberculosis, (2) develop highly sensitive and specific diagnostic technology and study of host immune responses during the different stages of disease, (3) determine shedding of M. paratuberculosis in milk of naturally infected cows at the farm level and evaluate survival of M. paratuberculosis in milk after heat treatment, and (4) identify immunogens of M. paratuberculosis by random and directed expression library immunization (DNA vaccines). Current fiscal year 2001 funding is $1,618,000.

A new focus is being added to the ARS research program at the Western Regional Research Center in Albany, California, includes testing for the presence of M. paratuberculosis in animal manure. The testing in this program results from the need to develop the knowledge and technology to prevent the transmission of epizootic pathogens, including M. paratuberculosis, from animal manure to food products for human consumption.

Current status on African Swine Fever:

ARS program on African swine fever (ASF) is conducted at the Plum Island Animal Disease Center. The research is focused on: (1) identification of pathobiologically significant ASF genes that might assist in developing a disease control

strategy, and (2) Defining protective immune responses to ASF virus and other significant foreign animal disease threat agents. Current fiscal year 2001 funding is $6,400,000.

Current status of research on West Nile Virus (WNV):

Advanced mosquito trapping methods developed by ARS scientists in Gainesville, Florida, are being used in New York City, in association with the Wildlife Conservation Society. In fiscal year 2001, methods will be developed for the same purpose in Connecticut in cooperation with the Connecticut Agricultural Experiment Station. Also, an alternative (non-pesticidal) technology for control of the larval stages of mosquito WNV vectors is being tested. Additionally, ARS scientists at the Southeast Poultry Research Laboratory (SEPRL) examined the susceptibility of chickens, to answer questions about viremia, incubation period, clinical signs, and antibody response. Both chickens and turkeys developed high viremias and shed virus in feces. Contact birds remained healthy and virus-free. The ARS, Arthropod-Borne Animal Diseases Research Laboratory (ABADRL), Laramie, Wyoming, has all arthropods viruses in their research mission. The laboratory is conducting research at the request of APHIS to develop a WNV vaccine. Current fiscal year 2001 funding is $798,000.

Current status of research on Avian Influenza:

The ARS program on avian influenza is conducted at the Southeast Poultry Research Laboratory (SEPRL) in Athens, Georgia. The program is focused on issues related to epidemiology, molecular virology, vaccines and pathogenesis of avian influenza. The United States, Mexican, Hong Kong and Italian virus isolates received from APHIS are being classified for disease-causing potential at the SEPRL. Scientists at SEPRL are developing and evaluating techniques to predict which mild forms of virus will change to more deadly virus. ARS is collaborating with private industry on recombinant and inactivated vaccines and improved diagnostic tests for avian influenza. ARS is also evaluating new vaccines to protect U.S. poultry from the threat of Hong Kong H5N1 and other types of avian influenza should they be introduced to the U.S. Current fiscal year 2001 funding is $1,391,000.

Current status of research on Plum Pox Virus (PPV):

The ARS research program on PPV is focused on improved detection and characterization, virus-vector transmission, and enhancement of germplasm for resistance, through both biotechnology and conventional breeding techniques. ARS scientists at Frederick, Maryland, and Kearneysville, West Virginia, are developing this integrated disease management system to support ongoing eradication efforts and to minimize the impact of the disease. Current fiscal year 2001 funding: $1,232,000.

Current Status of research on Asian Longhorned Beetle (ALB):

ALB systematics and identification keys have been developed by the Systematics Entomology Laboratory, Beltsville, MD. Two ALB pheromones have been discovered and are being patented (A347907) by the Chemicals Affecting Insect Behavior Laboratory, Beltsville, MD. Previously, it was not believed that the beetles communicated by smell. The chemicals will be developed into a trap for monitoring. Researchers at the Beneficial Insects Introduction Research Laboratory, Newark, DE, have shown that adult beetles disperse nearly one mile each year, rather than 100 yards as previously thought. This information has resulted in a widening of the beetle containment zone by APHIS. Using novel acoustic tools developed at Newark, DE, researchers were able to detect beetles in living trees in the field. The practicality of using this approach for monitoring is being investigated. Two natural enemies of ALB have been discovered in China by researchers at Newark and are being evaluated as biocontrol agents. Current fiscal year 2001 funding is $821,000.

Current status of research on Wheat Scab:

Improved resistance to Wheat scab, (Fusarium head blight), is being developed at the ARS Cereal Disease Laboratory at St. Paul, Minnesota. Research at Peoria, Illinois is being conducted to determine the genetics of toxin biosynthesis and genetic variability in the pathogen is being studied at ARS locations in Fargo, North Dakota and Albany, California. ARS researchers in Raleigh, North Carolina and Beltsville, Maryland are improving disease control strategies and researchers at Madison, Wisconsin are examining the effects of the disease on nutrient and seed quality. Finally, ARS participates in the U.S. Wheat and Barley Scab Initiative which is a consortium of Federal, state, and private researchers, growers, and others concerned about the losses caused by scab in wheat and barley. The research initiative focuses on six distinct program areas: Variety development and coordinated screening nurseries; Epidemiology (how scab develops, spreads) and disease management; Food safety, toxicology, and utilization; Biotechnology; Chemical and biological control,

and Germplasm introduction and evaluation. Researchers from 22 states and 6 locations within ARS are involved. Current fiscal year 2001 funding for all wheat scab research is $8,818,600.

Question. Describe for the Committee the status and corresponding funding for these projects carried out by APHIS. To what extent does APHIS carry out methods development and scientific services for these projects.

Answer. The APHIS Plant Methods Development program provides advanced scientific and technological capabilities to protect and improve U.S. agriculture. Methods development supports APHIS programs by optimizing existing pest management practices and by developing new technologies for pest exclusion, detection, survey, and management. This is accomplished by evaluating biocontrol organisms, evaluating new biological and chemical materials, adapting or inventing equipment, providing technical consultation and training, collecting and disseminating pertinent information, and integrating technological advancements into integrated pest management systems. APHIS conducts cooperative programs with State and local agencies and organizations to control or eradicate plant pests and diseases, and to control or eradicate animal diseases.

The Agricultural Research Service (ARS) is the principal research agency of the Department of Agriculture charged with conducting research to expand the knowledge and technology necessary to maintain and increase the productivity and quality of crop plants, and animals, and animal products. ARS provides research on broad regional and national problems; research to support Federal action and regulatory agencies; and expertise to meet national emergencies. ARS conducts research to find ways to protect plants from diseases, insects, and weeds. ARS also conducts research to assure the quality and safety of animal products used as food for humans; and research to reduce losses due to pathogens, diseases, parasites, and insect pests.

The citrus canker methods development APHIS has funded thus far is still in its early stages and has not yielded any significant results.

In regard to citrus tristeza, APHIS has worked on the control of brown citrus aphid, the vector for this disease. APHIS supported some studies in Florida with pathogens that can be applied in a manner similar to an insecticide spray. Also, APHIS funded a small ($50,000) cooperative agreement with the University of Florida to learn more about the vector. APHIS has only recently begun to work on Pierce's Disease and its vector, the Glassy-winged Sharpshooter (GWSS) in California. APHIS has teamed up with both the private sector and the Agricultural Research Service to look at ways of identifying this disease more quickly for the growers. Also, APHIS has also begun to seek ways to separate the pathotype that attacks grapes from the one that attacks citrus, almonds and oleanders. Additionally, APHIS is working on developing the use of airborne spectral analysis systems to detect this disease early in the disease cycle before it becomes a source of inoculum for other vines. This work is being funded by approximately $250,000 for APHIS. In addition, APHIS provided ARS with $150,000 for their work in this area, and the one private group is willing to work with APHIS for now at no cost to the Government. APHIS also awarded approximately $5.2 million to universities in California through a competitive grant process.

In fiscal year 2000, APHIS spent approximately $1 million on methods development to address Plum Pox Virus (PPV). APHIS gathered preliminary data on population dynamics and seasonal distribution of aphid species in infected orchards in Pennsylvania. Also, APHIS determined that none of the weed species in the heavily infected orchards carry the virus. In addition, APHIS determined the incidence of PPV within infected orchards through an intensive survey and this helped us tailor our survey plan in Pennsylvania and nationally. Our data also indicates that the mild D Strain of PPV is the only strain involved in this infestation. APHIS is coordinating with the Agricultural Research Service to determine future plum pox methods development and research needs. APHIS anticipates continuing to conduct confirmatory tests for new finds; typing the finds to strain, and acting as a back-up to the State-run labs; establishing laboratory testing standard operating procedures and quality control protocols; evaluating known foreign strains to determine strain differences which may determine the infection pathway into the United States; and ensuring State laboratories conducting routine PPV diagnostic tests meet established quality control standards. Laboratory testing for PPV identification is a crucial element in the survey program because infected plant material cannot be reliably identified based on visual symptoms.

APHIS recently allotted $1.6 million to the Forest Service for Asian Longhorned Beetle. This funding will support continued ALB research conducted by the U.S. Forest Service on attractant activity; detection technology detection technology, including the development of acoustical detection tools; DNA characterization of ALB

populations and biotypes; development and evaluation of control technologies, including new research to develop biologically-based control technologies (field testing of four species of nematodes, microsporidia and Bt biopesticide); methods and protocols for monitoring ALB in the urban-wildland interface; improved rearing methods for quarantine populations; continued development and evaluation of trap designs; and, new studies to understand dispersal and life history in natural forests. Forest Service research is conducted in quarantine and in China, and in collaboration with the Agricultural Research Service, APHIS methods development, and U.S. and Chinese university scientists. This research will not yield any meaningful results until perhaps fiscal year 2003. APHIS does not fund any research projects on Wheat Scab.

While APHIS does not fund any research projects on Avian Newcastle disease, Johne's disease, African Swine Fever, West Nile Virus (WNV), or Avian Influenza (AI), its National Veterinary Services Laboratories (NVSL) in Ames, Iowa, does conduct diagnostic testing on sample submissions through routine monitoring and surveillance. In fiscal year 2000, APHIS used $375,000 in contingency funds to test serum and tissue samples at NVSL from approximately 440 clinically-ill equine in 30 different states for WNV. In fiscal year 2001, APHIS will use $400,000 for this same purpose. In addition, APHIS tested 1,457 specimens from live-bird markets in the Northeastern United States for AI. The Agency isolated AI subtype H7N2 from 1 of the 439 specimens from New Jersey and 104 of the 900 specimens from New York. Specimens from Connecticut (16), Massachusetts (76), New Hampshire (2), and Rhode Island (24) were negative for AI. In fiscal year 2000, APHIS spent $100,000 to support bovine tuberculosis research activities. APHIS provided these funds to Michigan State University to study the transmission of tuberculosis in Michigan's free ranging white-tailed deer population. In fiscal year 2001, APHIS received $53 million from the Commodity Credit Corporation to accelerate the eradication of bovine tuberculosis. Another $7 million was received from the fiscal year 2001 Miscellaneous Appropriations Act. Of this $60 million, close to $200,000 will be spent on evaluating promising field diagnostic tests such as skin testing and $165,000 will be spent on evaluating promising vaccines.

Question. Please describe for the Committee the beginning point in which methods development or technical services aspects of the APHIS mission occurs for these projects?

Answer. APHIS is subject to the Federal appropriations process, and must therefore identify its methods development needs approximately 2 years before the funds are made available. The "beginning point" from a functional perspective is when APHIS identifies a programmatic need in an activity, such as domestic, international, or port operations, APHIS' first look at available technologies, contact experts and researchers (internationally as well as scientists within this country, including the Agricultural Research Service) in the subject area, and determine whether solutions can be implemented to preclude the entry of pests or diseases, to detect and to identify new ones or those of programmatic significance, and to eradicate or suppress them where they occur. In some cases, if technology is available but merely needs to be slightly adapted for implementation, then APHIS may commit the necessary resources to do so. If the programmatic needs are such that immediate solutions can not reasonably be implemented with minor modification of a technology, or the scope is such that APHIS does not have adequate resources to address the issue, then APHIS would attempt to communicate these more "long-term" research needs to our sister agencies and researchers both within the United States and abroad.

NATIONAL PLANT GERMPLASM SYSTEM (NPGS)

Question. Last year, the Department stated that a static budget for the National Plant Germplasm System (NPGS) would have severe programmatic ramifications throughout the NPGS. Did the USDA request an increase for the NPGS for fiscal year 2002 in its request to OMB and, if so, how much did the USDA request for fiscal year 2002?

Answer. Because of the change in Administration, the sequence of events used to develop the fiscal year 2002 budget was somewhat different from the usual process. Without a full complement of policy-level officials, much of the budget was developed through negotiations directly between the Secretary and the Office of Management and Budget. Much of this abbreviated budget development process took place during the weeks between inauguration and the release of the President's budget blueprint on February 28, 2001. As a result, there is not a set of formal agency and Department-level proposals.

Question. Last week, the USDA Advisory Committee on Agricultural Biotechnology agreed to recommend that funding be doubled for the National Plant Germplasm System (NPGS). What steps will you take to implement this recommendation?

Answer. The recent recommendations of the USDA Advisory Committee on Agricultural Biotechnology (ACAB), together with the Administration's strategic plans and budgetary targets, and input from other customers, cooperators, and stakeholders will be taken into account when formulating the Agency's fiscal year 2003 budget request. The Agency will continue to provide requested information to the ACAB regarding the NPGS's status. The Secretary will review the agency's request in the overall context of priorities for all of the Department's missions.

Question. Traditionally, the NPGS has supported food, feed, and fiber security in the U.S. Today, we have the most stable food supply in the world. Why is the NPGS important and what is the cost to the Nation of not supporting the NPGS to the extent requested by the ARS?

Answer. Genetic raw materials, water, air, soil, sunlight, and management practices comprise the agricultural production system that sustains humanity, and currently provides the United States with an affordable, highly diverse, and nutritious diet. Although the U.S. today has perhaps the most stable food supply in the world, its systems of renewable resource production and land stewardship face formidable challenges in the new millennium. Among the most exacting challenges is successfully adapting to the accelerating rates of change in factors affecting agricultural productivity. Climatic extremes may now occur more frequently due to human activities. Water and soils are being depleted more rapidly. As global agricultural production incorporates more fertilizers, herbicides, or pesticides, water and soils are also increasingly threatened by pollution. Unless new technologies, including new crop varieties derived from germplasm in the NPGS, are developed and utilized, the costs to the Nation may be environmental deterioration that threatens agricultural production. In addition, regulations and other proposed remedies for those phenomena that may rapidly complicate resource management, food and fiber production, and processing will be other costs. Environmental deterioration and the preceding complications, in turn, may result in more rapidly increasing prices paid by consumers, more volatile commercial markets, reduced profits for producers, and a narrower competitive edge for U.S. products in world markets. More costly food may result in less nutritious diets for the poor.

Globally, natural plant communities and landscapes that contain potentially useful plants are disappearing. Burgeoning human populations worldwide are increasingly urban, with cities now occupying ever more hectares of formerly productive agricultural land. As a result, rates of agricultural productivity can be raised only if the remaining land under cultivation yields more agricultural production. New, more intensive production practices implemented throughout the Nation (e.g., higher density plantings, reduced tillage and chemical inputs) place new demands on crops. Formerly minor pathogens are now economically important because of changing production practices. New, more virulent genetic variants of already important pathogens and pests are cause for grave concern. These provide an impetus for assaying NPGS germplasm for new sources of host-plant resistance. Furthermore, economic constraints to agricultural profitability underscore the immediate need for value-added and alternative crops for increasing the monetary return to producers (especially in rural areas), and for efficiently diversifying the productive capacity of U.S. agriculture. The NPGS will likely be the sources for such new crops.

The rapid destruction of natural habitats and agricultural productive capacity may be most extreme in the developing countries, where a wealth of genetic resources vital to U.S. agriculture is endangered. Essentially all the major crops we grow and use originated there. Consequently, the stability of U.S. agriculture is based primarily on crops that were imported long ago and on their continual genetic improvement via more recently acquired genes conserved in the NPGS collections. The cost to the Nation of not adequately supporting the NPGS may be extinction of these resources, or inaccessibility caused by lack of operating funds. That may increase the genetic vulnerability of agriculture to rapidly evolving pests, pathogens, environmental changes, and to competitive market demands, which change continually and rapidly according to consumer preferences and advances in processing technology. The demands placed on U.S. agriculture by a rapidly changing world can only be met by technologies that optimally harness the inherent genetic potential of NPGS germplasm so as to maximize profits, security of supply, price stability, market competitiveness, and avoid crop losses from genetic vulnerability. More rapid and efficient methods for identifying useful properties of germplasm, and for manipulating genetic and genomic material and information, are required. These new methods will include more effective breeding strategies and more comprehen-

sive knowledge of crop genomic structures. The new scientific approaches of genomics and biotechnology, when applied to NPGS germplasm, are critical for developing improved crops that enable producers to maximize yields of high-quality products, but minimize chemical input, water and soil depletion, water and soil contamination, as well as production costs.

Paradoxically, sole reliance on the preceding methods of genetic improvement may lead to superior but excessively narrow genetic bases for crop gene pools. As a result, the Nation's future food, fiber, feed, ornamental, and industrial product supply may become more vulnerable to rapidly changing pathogens, pests, or environmental extremes. It may be less abundant, nutritious, and diverse, hence less capable of adapting to changing regulatory concerns or to global change in climates and commercial markets. The cost to the Nation of such developments would be catastrophic. Adequate funding is needed for the NPGS in order to ensure that accessions are available for distribution, and that essential germplasm acquisition, maintenance and regeneration, preservation and conservation, and characterization and evaluation activities are carried out. Consequently, the NPGS, which furnishes the means for broadening crop genepools, is crucial to developing safer, more secure, and more efficient agricultural systems. Its genetic resources are literally the basis of U.S. agriculture.

Question. For fiscal year 2000 and fiscal year 2001, the agricultural appropriations bills provided increases for the NPGS of $1.75 million and $3 million, respectively. Please provide the subcommittee with a detailed list, by NPGS site, of where the additional funds were spent, for what purposes the funds were used, and whether the additional funds were critical for maintaining or improving the program level at the particular site.

Answer.

Fiscal year 2000 ($1.75 million gross allocation).

Albany, CA: ($250,000 gross).—This funding increase enabled a scientist and support staff to be hired to characterize, with leading-edge genomic approaches, small grains (wheat, rye, and barley) genetic resources. The research will also help develop more effective and efficient genetic markers to facilitate small grains agronomic evaluation and breeding. Furthermore, it will expand bioinformatics/database development and refinement efforts for linking the GrainGenes genome database more closely to small grains germplasm databases such as the Germplasm Resources Information Network (GRIN) in the U.S. and the International Center for Maize (Corn) and Wheat Research (CIMMYT) wheat database system. The additional resources are crucial for enabling the NPGS to intensify its program of genetic and genomic characterization of small grains germplasm with leading-edge tools and technologies, such as nucleotide sequencing and comparative genomic approaches.

Ft. Collins, CO: ($250,000 gross).—The funding increase enabled one research scientist and one support scientist to be hired to develop and apply long-term preservation protocols for clonal and desiccation-resistant seed germplasm. The budgetary increase was crucial for supporting research wherein "stress" genes in blackberry were isolated; mechanisms whereby cells of mint adapt to ultra-cold temperatures were elucidated, and which resulted in new methods for long-term preservation of garlic bulbs and embryos of citrus, coffee and wild rice. A technician was hired to strengthen the clonal preservation operations and additional part-time staff were hired for seed quality evaluation. The technician was important for increasing the National Seed Storage Laboratory's (NSSL's) capacity to store clonal germplasm over the long-term, for a few species, and the additional temporary staff increased the efficiency for storage of seed.

Ames, IA: ($250,000 gross).—Prior to the fiscal year 2000 increase, the NPGS site at Ames, IA, required funds to maintain the then current operations and staffing levels, due primarily to increased personnel and operating costs. The budget increase in fiscal year 2000 supported two additional temporary Federal support staff, two additional student support staff, purchased much-needed equipment, and covered wage and benefit increases for that year.

Columbia, MO: ($250,000 gross).—For maize (corn) germplasm, characterization, evaluation, and enhancement of the large NPGS collection of this crop are priority needs. The fiscal year 2000 funding increase expands efforts to evaluate and characterize poorly-studied NPGS maize germplasm for genes conditioning adaptation, productivity, and host-plant resistance to major pathogens and pests of maize. The new funds enable researchers to employ up-to-date genetic/genomic technology to detect latent genetic diversity in maize, and to develop genetic markers closely associated with agriculturally-important traits, so that the markers can facilitate incorporation of such traits into adapted germplasm. Together with cooperators throughout

the U.S., scientists in Columbia are conducting one component of the GEM Project, which is genetically enhancing public maize germplasm by incorporating genetic diversity from unadapted germplasm for productivity, quality, and resistance to biotic and abiotic stresses. Finally, these funds are supporting a collaborative effort among personnel at Columbia, MO, Ames, IA, and elsewhere to link the MaizeDB database more closely to maize germplasm databases such as the NPGS-wide GRIN database and the System-wide Information Network for Genetic Resources (SINGER) databases for the international agricultural research centers, especially the CIMMYT maize database.

Beltsville, MD: ($250,000 gross).—This increase enabled the NPGS's database system GRIN (Germplasm Resources Information Network) to retain the requisite staffing level, to purchase maintenance agreements for the GRIN's hardware and software, and to fund critical operating expenses. Had these funds been unavailable, three permanent staff members may have been terminated and software and hardware maintenance may have been deferred.

Ithaca/Geneva, NY: ($250,000 gross).—The budgetary increase was partially devoted to hiring a molecular biologist and a laboratory technician to develop DNA technologies to more efficiently and effectively preserve tomato, onion, cole crops, winter squash, and buckwheat germplasm. The remaining funds were applied to updating aging seed production equipment and facilities, and to upgrading computer software and hardware for seed germplasm data management capabilities. The budget increase was essential for preserving and improving the quality of the seed germplasm collection at this site so that it began to approach international standards for viability, phytosanitation, and availability.

Pullman, WA: ($250,000 gross).—This budget increase was partially devoted to establishing a new greenhouse manager position that is very important for enhancing operational efficiency. Also, a research geneticist was hired to expand genetic marker and comparative genomic characterization for cool season legumes, dry beans, beets, forage legumes and grasses, etc. The additional funds were integral for developing, maintaining, and enhancing genetic marker and genomic data management and bioinformatic capabilities by enabling continual upgrading (both technical, and in terms of additional data) of software and hardware, for germplasm data management.

Fiscal year 2001 ($2,993,400 gross):

Phoenix, AZ: ($149,600 gross).—The fiscal year 2001 budget increase was critical for expanding germplasm evaluation or characterization research to identify or characterize new sources of agronomically important traits in Pima cotton, and for the new crops guayule (source of hypoallergenic rubber), and Lesquerella (new oilseed crop). The additional funds are enhancing this site's capabilities to regenerate, store, and/or maintain guayule and Lesquerella germplasm so that more is available to researchers and breeders. New cotton, guayule, and Lesquerella germplasm will be acquired to replenish current supplies, or to fill genetic gaps in the collection.

Davis, CA: ($199,600 gross).—Because of long deferred repair and maintenance of facilities, vehicles, and implements due to many years of fiscal deficits, the fiscal year 2001 increase was applied mainly to renovating and repairing basic infrastructure at this site. One temporary technical staff was hired for orchard maintenance, where personnel are still needed. Next year, the infrastructure renovation should be complete, and the new funds will be applied to characterizing germplasm. Currently, only the walnut and fig collections are well-described. Without such genetic descriptions and characterizations, germplasm users lack the means for efficiently selecting material for their purposes. The fiscal year 2001 funds will be critical for hiring a scientist specializing in germplasm characterization to generate data crucial for efficient management and use of germplasm, so that potential users have descriptive data available to select material with certain characteristics, rather than to pick, almost randomly, from names on a list, without recourse to additional information.

Riverside, CA: ($199,600 gross).—The new funds enabled the recruitment of a plant pathologist to increase the amount of pathogen testing and elimination in citrus (orange, lemon, lime, grapefruit and related species), thereby addressing the critical need to increase the amount of germplasm available to breeders and researchers, as well as increasing the germplasm that this site could acquire.

Ft. Collins, CO: ($199,600 gross).—The fiscal year 2001 increase enabled hiring of a support scientist and technician. The support scientist serves as an instrumentation specialist for the entire NSSL research effort, enabling research integration that has facilitated study of the effects of provenance on propagule quality, the results of which may lead to more consistent survival of seeds following ultracold storage. The technician helped establish gene expression analysis and cloning, impor-

tant molecular approaches for studying plant acclimation to drought and cold. The fiscal year 2001 funds will add another scientist to the clonal plant preservation program to help adapt and modify protocols for preserving vegetatively propagated plant germplasm, thereby enabling the ultracold storage of a variety of clonal crop germplasm.

Washington, D.C.: ($149,600 gross).—The fiscal year 2001 budget increase has expanded the volume of woody ornamental germplasm accessions actively managed, which will make more germplasm available to the scientific community. It has provided funding critical for expanding the current effort to coordinate the North American Plant Collections Consortium (NAPCC), and enabled stronger linkage between the former and the U.S. National Arboretum's woody germplasm management effort. The additional funds have expanded efforts to modify current protocols or develop new methods for optimal woody ornamental germplasm management, including new molecular marker assay systems, and have expanded the scope and volume of data and information management activities.

Griffin, GA: ($299,300 gross).—The fiscal year 2001 funds were critical for expanding the volume of germplasm accessions available to the scientific community, developing new methods for optimal germplasm management, and expanding the data management program. Operating funds for each germplasm curator were quadrupled, enabling an increase in the amount of germplasm regenerated and otherwise managed. A germination technician is being hired to conduct germinations needed to set accurate regeneration priorities and provide users with higher quality seed. A retired agronomist's position was re-filled, which bolstered management of the warm-season forage and turf grass national collection. Temporary summer help will handle the increased amount of germplasm regenerated. Without the additional funds, regenerations would have been severely reduced or eliminated because there would have been no labor to plant, manage, harvest, and thresh seed from regenerated accessions. The new program for seed germination program and quality would not exist. The curatorial staff would have been insufficient to handle the workload.

Ames, IA: ($239,500 gross).—The fiscal year 2001 funding increase provided additional seed storage, seed processing, lab equipment, and office resources for integrating the Genetic Enhancement of Maize (GEM) Project into this site's overall operational framework. The new funds were critical for hiring an additional temporary Federal employee and additional student labor. It funded normal wage and benefit increases, and covered a 50 percent increase in energy costs. These funds were critical for building capacity to increase germplasm regeneration, evaluation, characterization, and distribution efforts.

Aberdeen, ID: ($219,500 gross).—Many of the new funds purchased critical equipment (e.g., planter and thresher) and supplies critical for germplasm management. Four full-time Federal technical positions will strengthen operations at this wheat, barley, oats, and rice germplasm site. All of the preceding progress was dependent on the new funds.

Urbana, IL: ($199,600 gross).—The new funds enabled the soybean germplasm program to buy a new high purity seed thresher and a new vehicle for field work. Additional temporary personnel were hired to assist in processing seeds, and a new permanent technician position was established. Before the fiscal year 2001 increase, the entire budget was devoted to salaries and utilities; the increase was critical for providing an operating budget for germplasm management and research.

Ithaca/Geneva, NY: ($124,800 gross.—Note that this location received an additional $249,600 gross for germplasm management via a separate fiscal year 2001 budget line) Some of the budgetary increase was devoted to hiring a permanent field technician and part-time field assistance, leasing beehives for controlled pollination, and to DNA technology development. The new resources helped the genebank approach the international standards for seed viability testing, whereby all seed lots have known germination rates and procedures have been established for determining viability as a normal part of the management process. Furthermore, the amount of germplasm available to the scientific community has increased, as has the volume of associated characterization and evaluation data. Scientists and technicians were hired to amplify the apple, grape, and tart cherry germplasm management effort, and to develop and deploy DNA markers to assess genetic diversity in fruit germplasm.

Corvallis, OR: ($219,500 gross).—Many of the new funds will support temporary technical personnel to assist in the field and greenhouse management of strawberry and other berry and nut germplasm. Additional funds will expand the critical effort to evaluate small fruit and mint germplasm for horticultural merit. The remainder of the increase will bolster budgets for travel, staff training, supplies, equipment, utilities, and maintenance. This funding increase was critical to maintaining oper-

ational capacity of this genebank. Without this increase, key permanent positions would have been terminated, because of the budgetary impact of this year's increased energy and fuel costs.

Charleston, SC: ($149,600 gross).—The fiscal year 2001 increase to the U.S. Vegetable Laboratory expanded germplasm evaluation research on sweet potato, cole crops, melons, peppers, and southern peas. This research is identifying or characterizing new sources of horticulturally important traits. Whenever possible, these or previously identified priority traits are being incorporated into enhanced breeding lines of the preceding crops, so as to make superior, better-documented germplasm accessions available to breeders and plant scientists.

College Station, TX: ($249,500 gross).—Funds will initially be used to expand greenhouse space, and to expand germplasm regeneration and characterization efforts. The increase enabled the continued employment of a staff member who was scheduled to be terminated in April 2001, due to lack of funds. The pecan orchards could be fertilized this year, greatly aiding trees that were unfertilized last year and stressed by last year's drought. Top priorities are hiring seasonal help at two worksites (Brownwood and College Station, TX) and buying equipment key for more efficient operations. The pecan/hickory orchards are not irrigated, and acquiring a reliable irrigation system is critical for the long-term security of the collection.

Pullman, WA: ($244,500 gross).—The funds devoted to Pullman and a worksite at Prosser covered additional personnel costs and general operations support that is crucial for both germplasm maintenance and research.

Madison/Sturgeon Bay, WI: ($149,600 gross).—Most of the new funds were devoted to hiring additional personnel, buying needed equipment, and conducting long-deferred facility upgrades. A scientist is being recruited to manage research and evaluation projects, and part-time labor is being hired to conduct additional genetic analyses, seed increases, etc., for the national potato germplasm collection. The new funds were critical for remodeling and outfitting this site's laboratory to conduct molecular marker analyses, enabling more rapid progress assessing the optimal genebank management practices for maximizing the capture and preservation of genetic diversity.

Question. It is our understanding that many sites are unable to fill positions of persons who have retired because of the lack of funding necessary to meet cost of living increases, escalating energy costs, and maintenance of NPGS facilities. Please provide the subcommittee with a list by site of positions terminated within the past two fiscal years and that will be terminated during fiscal year 2002 unless the site receives an increase in funding.

Answer. Permanent positions at NPGS sites have been abolished not only after incumbents retire, but also after they leave voluntarily to take other jobs, etc. Furthermore, to manage increasing costs with a static budget, many site managers exercise fiscal prudence by hiring temporary rather than permanent staff to provide the budgetary flexibility needed. But offering temporary rather than permanent appointments makes recruitment of high-quality staff difficult.

Davis, CA.—Because of the current level of financial support for this site, and uncertain future energy prices, fiscal prudence dictated that a new technician position be a temporary, rather than permanent appointment, so as to provide budgetary flexibility to redirect resources to maintaining living collections that require constant maintenance.

Riverside CA.—One technician position was terminated in fiscal year 2000 when the incumbent transferred. Unencumbered funds were used to renovate and upgrade a high-volume air-conditioning system. With the fiscal year 2001 increase, the technician position may be re-established, but probably as a temporary appointment, so as to conserve funds to cover substantially higher energy costs, inflation and cost-of-living increases.

Ft. Collins, CO.—Following the retirement of one incumbent, one research scientist position was terminated this fiscal year, leaving a void in this site's capability to conduct research on seed physiology and molecular biology relevant to more than 90 percent of the NPGS collection. Without funding increases in fiscal year 2002, increased operating expenses will necessitate abolishing one technician position, four temporary student positions, and one visiting scholar position. Loss of those positions will impede critical research on cryopreservation, and on other innovative, more efficient means for conserving germplasm.

Griffin, GA.—During the past two fiscal years, five temporary technical positions were terminated and three permanent positions were hired in replacement. Unless another budget increase occurs in fiscal year 2002, fewer temporary workers will be hired, reducing the number of germplasm samples that can be regenerated, and the scope of laboratory operations.

Hilo, HI.—One permanent technical position was terminated when the incumbent transferred. Because of funding constraints, only two ½ time, temporary technicians could be hired in replacement, which does not satisfy the ongoing need for two additional, permanent technical assistance positions to address key, core managerial functions.

Ames, IA.—Following retirement of a research entomologist in fiscal year 2001, funds encumbered by that position were devoted to support a new breeder/coordinator position for the Genetic Enhancement of Maize (GEM) program. If the GEM receives no new resources in fiscal year 2002, either the research entomologist position will not be re-established, or the new breeder/coordinator position will go unfilled. If no additional resources are not forthcoming, two or three temporary technical support positions would be terminated each year for the foreseeable future, and germplasm management operations would diminish. There would be little or no opportunity to adopt new technologies, such as geographical information systems (GIS) information systems and molecular markers to germplasm management.

Corvallis, OR.—One graduate research assistant position and one temporary technical assistant position were terminated during the past two fiscal years, because of lack of fiscal resources. Without an additional base fund increase, a permanent field manager position may be eliminated during fiscal year 2002.

Mayagüez, PR.—After retirements during the past two fiscal years, two administrative positions were terminated so as to meet increased indirect research costs.

College Station, TX.—Retirement of a technician in fiscal year 2000 caused personnel reassignments, with the net loss of an employee to the pecan germplasm management program. The impending termination of a full-time non-Federal employee was at least temporarily avoided by the fiscal year 2001 budget increase, but it may be threatened if no budget increase occurs in fiscal year 2002. The cotton germplasm program anticipates retirements of four support staff by 2002; with current budget levels, some of the former positions would be terminated.

Question. Have the escalating energy costs had an effect on the ability of the NPGS sites to maintain their program effort?

Answer. The effects of escalating energy costs on NPGS sites are highly variable throughout the U.S. Some effects have been direct, e.g., higher costs for running cold rooms, natural gas for drying harvested crops, and fuel for gasoline/diesel-powered machinery. The effects have also been indirect, e.g., higher costs for goods and services due to increased energy prices. Most of these items are essential so higher costs divert funds from other uses, e.g., research, non-essential maintenance, etc.

The NPGS sites in California have been affected the most severely; average cost increases for electricity of nearly 50 percent are forecast for the next year. At Davis, CA, cost estimates for goods and services procured locally have increased more than 10 percent in the last three months. At the NPGS sites in Riverside, CA, and Parlier, CA, the more immediate threats are not increased power costs but, rather, power outages. Parlier is suffering from "rolling blackouts", which affect computer use, and reduce the effectiveness of climate control in growth chambers, refrigerators and freezers. Without power to run the greenhouse cooling system at Riverside, high temperatures might kill citrus trees, and months of pathogen testing might be lost because some assays require consistently cool temperatures. Loss of power might also destroy DNA samples and expensive chemicals stored in refrigerators and freezers. Should power costs in CA continue to increase substantially, fewer funds would be available to hire temporary employees and for operations, with the result that germplasm management efforts would diminish.

The NPGS site at Mayagüez, PR, has suffered a 57 percent increase in electricity costs during the last few months. These costs are projected to continue for the foreseeable future. As a result, planned purchases of farm equipment may be postponed, and fewer temporary field laborers may be hired, thereby slowing the rate of progress with key managerial tasks.

Similarly, the NPGS site at Urbana, IL, is planning for a 55 percent increase in energy costs for the coming fiscal year by altering plans for future operations. Without the fiscal year 2001 budget increase, no funds would have been available to pay for the increased cost of running the germplasm storage building.

Energy costs have increased at the Ames, IA, site 50 percent so far during fiscal year 2001, due to rising fuel, fertilizer, utility, transportation, and plastic products costs. When electricity rates are re-negotiated later this year, utility costs may double, necessitating redirection of funds.

Energy surcharges for transportation of goods and materials, plus direct increases in gasoline, propane, electricity, travel, and postal costs have occurred at the NPGS site at Corvallis, OR. The energy rates are forecast to double next year, necessitating that funds must be diverted from performing non-essential maintenance to pay for the forecast increased utility costs.

Utility costs comprise much of the cost of running the National Seed Storage Laboratory at Ft. Collins, CO. Actual usage of steam and water for the first six months of fiscal year 2001 indicates that the costs of these utilities will double, thereby reducing the amount of funds available for other operating expenses, temporary research appointments, etc.

At College Station, TX, the cost of operating greenhouse and cold rooms for cotton may rise by up to 100 percent, but cost estimates are still preliminary. Energy costs this year for the pecan program have increased 46 percent. To reduce energy costs, more plants have been transferred from greenhouses to the field, with a concomitant increase in plant mortality. This increased cost is met from the operating budget, reducing the amount of maintenance that can be conducted on facilities and equipment, and the amount of additional summer labor that can be hired.

Question. Do you have materials in the NPGS that are at risk for loss? If we lose germplasm due to the lack of regeneration, is it always possible to replace it? What percentage of NPGS germplasm is not in long-term, back-up storage?

Answer. Duplicate germplasm samples and duplicate copies of databases maintained in at least two physically-separate locations represent perhaps the most effective safeguards against the risk of catastrophic loss from weather-related causes, other natural phenomena, equipment failure, and human activity, be it intentional or unintentional.

It is not always possible to replace germplasm samples that are lost due to lack of regeneration when they are not duplicated within the NPGS, obtainable from other germplasm collections or genebanks within the U.S. or internationally, currently grown by farmers or produced by seed companies or nurseries, or if they are extinct in nature, as is the case with some wild species. Some of the genetic components of the "lost samples" may be conserved in other, genetically closely-related samples. But the degree of genetic redundancy between such samples may be quite variable and unpredictable. Consequently, germplasm managers in general do not assume that genetically closely-related samples necessarily contain precisely the same genetic components of the "lost samples," some of which may be key to current and future genetic improvement crops.

At present, ca. 20 percent of the seed samples and ca. 86 percent of the clonally-propagated samples in the NPGS collection of 430,000 samples are not duplicated in long-term storage, and consequently, are at a higher risk of catastrophic loss than are the duplicated samples. Some of the samples that are not duplicated within the NPGS are duplicated in other nations (e.g., the NPGS pineapple collection is duplicated in Martinique) or at International Agricultural Research Centers (IARCs). But, with increasing fiscal shortfalls at other institutions, the NPGS cannot assume that duplicates of "lost" germplasm can be readily obtained elsewhere.

As the preceding data indicate, the risk is greatest for clonally-propagated germplasm. With many clonal crops, long-term "backup" methods (e.g., cryopreservation) do not exist; more funds are needed for NPGS researchers to develop this technology.

Germplasm may also be at risk from slower, more insidious processes such as gradual loss of viability, loss of genetic integrity, infectious disease, etc., that deteriorate the quality of germplasm and associated data.

Question. What percentage of accessions is unavailable for distribution and why are they unavailable?

Answer. For the NPGS as a whole, approximately 15.5 percent of the nearly 436,000 total accessions is unavailable for distribution. Notably, the percentage of accessions unavailable varies widely across the different crops and sites of the NPGS (see table below). For example, nearly all of the pecan accessions at the Brownwood/College Station site are available for distribution, whereas in contrast nearly all citrus accessions are not currently available.

For the most part, the accessions are unavailable because they consist of too few seeds or plants, and/or because of uncertain viability and disease status. Lack of personnel and operating funds for standard seed and clonal increases, for special propagation techniques (e.g., tissue culture), and insufficient field and greenhouse space are the most common causes for such unavailability. Many of the unavailable accessions are wild species; they often require scarce greenhouse space for seed increase, prohibitively expensive special techniques for propagation, or funds for research to develop such techniques.

Some discussion of certain figures listed below is warranted. The unavailable maize genetic stocks in Urbana are primarily newly received materials, many from NSF-funded plant genome projects, that require seed increase before sufficient quantities are available for distribution to users. The many unavailable citrus accessions are largely result from their uncertain disease status; quarantine restrictions for citrus are manifold. Transport of citrus across state lines is highly regulated,

and until funds are available for disease indexing, most of the accessions cannot be transported to researchers in Florida, Texas, etc. In crops other than citrus, quarantine restrictions also contribute to germplasm being unavailable for distribution. The percentage of accessions unavailable for regeneration is provided for the record.

[The information follows:]

Selected NPGS site	*Percent unavailable accessions*
Brownwood/College Station, TX (pecan)	>1
Davis, CA (tomato)	3.1
Sturgeon Bay/Madison, WI (potatoes)	5
Hilo, HI (tropical fruits)	5
Aberdeen, ID (small grains)	8
Pullman, WA (plant introduction station)	10
Griffin, GA (plant introduction station)	15
Davis, CA (fruit and nut, clonal)	22
Geneva, NY (plant introduction station)	28
Urbana, IL (maize genetic stock)	ca. 40
Riverside, CA (citrus)	ca. 95

Question. For fiscal year 2000 and fiscal year 2001, please provide the dollar amount and overall percentage of the NPGS budget spent on each of the following categories related to germplasm: maintenance, regeneration, evaluation, acquisition, and characterization.

Answer. Of the total $26.7 million allocated to the NPGS in fiscal year 2000 about 63 percent ($16.9 million) was devoted to germplasm conservation and preservation, which includes the activities of maintenance and regeneration. $3 million (11 percent) was devoted to germplasm acquisition, and the remaining 26 percent ($6.8 million) was devoted collectively to germplasm characterization and evaluation, categories that often overlap substantially. In fiscal year 2001 a total of $32.2 million is currently allocated to the NPGS with 62 percent ($19.9 million) devoted to germplasm maintenance and regeneration, and $3.3 million (10 percent) to germplasm acquisition. The remaining 28 percent ($9 million) was devoted collectively to germplasm characterization and evaluation, categories that often overlap substantially. At specific NPGS sites (e.g., plant introduction stations, crop-specific collections of clonal germplasm, grains, oilseeds, etc.) that both maintain and regenerate germplasm, the budgetary percentage devoted to maintenance and regeneration may be 75 percent or higher.

Question. Do you have sufficient resources to manage the materials that are in the quarantine centers in a manner that fulfills the demands of the users? Have materials died in quarantine centers? Are the materials made available to the requesters in a timely manner?

Answer. In general, the Plant Germplasm Quarantine Office/National Plant Germplasm Quarantine Center (PGQO) in Beltsville, MD, can manage the plant germplasm in quarantine successfully, provided the amount of germplasm in the PGQO does not exceed current capacity, which is determined primarily by the funding available for personnel, operations, and facilities. To ensure that its capacity is not exceeded by demand, the PGQO is establishing annual quotas for each type of germplasm. These were communicated to germplasm users in May 1999 and put into effect starting in fiscal year 2000. The quotas vary somewhat over years based on factors such as the germplasm in the quarantine testing "pipeline" at the beginning of the year, changes in testing protocols, and changes in program goals.

No significant germplasm losses have occurred in the potato, sweet potato, rice, or sugarcane held by the PGQO. In the past, fruit tree accessions in the PGQO orchards were lost because of inadequate care, and insufficient attention to matching the work load with the resources available to tend to this germplasm. These problems were addressed and loss has been minimal during the recent years of orchard testing.

Some replicates of accessions have been lost to herbicide injury but, in these cases, a sufficient amount of backup material was available to repeat the tests as necessary. Occasionally, replicate samples of blackberry, raspberry, or currant perish from winter damage in the screenhouses. But, these samples are "backed up" so the accession is not lost, but its release from quarantine is delayed because the tests must be repeated. Losses from winter kill have been minor during recent years because of mild weather, and improved horticultural care. Sweet potatoes, Irish potatoes, and currants are backed-up in tissue culture for additional security.

The stone fruit (cherry, peach) quarantine program is conducted entirely in greenhouses and screenhouses, where germplasm loss is relatively rare, but does occur occasionally because of several factors that are not unique to PGQO: (1) the inher-

ent difficulty of maintaining trees in pots for years; and, (2) cherry and peach accessions received by PGQO as budwood are often difficult to propagate, especially after days in international transit, and may die before they are established.

Germplasm is made available ("released") from quarantine as rapidly as quarantine regulations and/or "pathogen clean up" permit. The only crop with a backlog of accessions awaiting quarantine testing is rice, with a 4,000 accession backlog. The rice backlog can be addressed if the testing protocol is being revised to continue quarantine testing at Beltsville with seed production of quarantined accessions in North Carolina (where rice is no longer grown commercially). For other crops, the release/backlog situation is summarized below:

—Pome fruits (apples, pears, quince) are now released "provisionally" within one year if the first round of testing is negative and if the propagative material is available. Under the "provisional release policy," germplasm users can propagate and evaluate the germplasm prior to its final release from quarantine. This policy has been very popular with germplasm users, and is feasible because of the PCR test for phytoplasmas. Final release still requires at least 3–5 years because test trees must produce fruit for evaluation of symptoms: there is no technological substitute for the fruit evaluation.

—Stone fruits (cherry, peach) are also provisionally released after one year, but full release requires at least 3–5 years for germplasm imported as budwood. But germplasm imported as seed can be released sooner (12–18 months) because less testing is required.

—Sugarcane imported from other nations requires 18–24 months in quarantine, whereas sugarcane shipped interstate (e.g, Louisiana to Florida) requires 12–18 months. Current molecular technology will probably not accelerate the release time, although the former may improve the accuracy of test results.

—Rice cannot be released from quarantine until it sets seed, which can require 100 to 240 days, depending on the specific germplasm. Notably, quarantine testing could be conducted entirely from in vitro tissue culture and germplasm released in 30 days but, because it would be distributed in the form of tissue-cultured plantlets rather than true seed, the user community has not been interested in this method.

—The quarantine process for potatoes and sweet potatoes require 18–24 months; tests require one year and are repeated. The testing required for true potato seed is substantially less than for potato tubers.

—The quarantine process for currants and gooseberries requires 3–5 years, necessitated by waiting for plants to fruit so they can be evaluated for the reversion virus. There is a PCR-based test for the reversion virus but APHIS has not accepted it, although Agriculture Canada has done so. The PCR test could enable provisional release after one year, if the propagative material is available.

—The quarantine process for raspberries requires about 3 years.

Question. With current resources, are you able to take advantage of modern molecular techniques to accelerate the rate of quarantine testing for crops such as rice, apples, cherries, sweet potatoes, and others?

Answer. Molecular diagnostic techniques alone may not accelerate the final release of germplasm from quarantine but they may accelerate the provisional release of germplasm, as described above for pome and stone fruits. The tests will detect target pathogens that have been thoroughly characterized genetically, but not other "exotic" pathogens which are often essentially unknown scientifically, except for symptoms on the plant or fruit. Thus, molecular diagnostic tests will not completely replace the time-consuming visual observations of plants currently required by APHIS regulations. Consequently, the speed of the entire quarantine process may be more closely related to principles of scientific risk assessment and/or the field and greenhouse capacity, rather than to modern molecular technology.

Despite the preceding factors, the current staffing level at the Plant Germplasm Quarantine Office (PGQO) does not enable the PGQO to take full advantage of molecular diagnostic techniques.

—*Pome (apple, pear) and stone fruits (cherry, plum, peach).*—The polymerase chain reaction (PCR)-based test for phytoplasmas and molecular hybridization assays for viroids have enabled provisional quarantine release within one year, providing adequate budwood is available. Additional technical assistance is needed to fully utilize new greenhouse and screenhouse space, implement more fully this molecular testing program, and further accelerate the quarantine process.

—*Stone fruits.*—Implementation of a PCR-based test for sharka (plum pox) could supplement the plant graft testing on indicator species, but would require additional resources for implementation, and additional technical assistance to fully utilize new greenhouse and screenhouse space.

—*Sugarcane.*—Current quarantine testing relies on observations of symptoms on greenhouse-grown plants, which is not ideal for sugarcane. Molecular tests for Fiji virus (Oceania) and sugarcane mosaic gemini virus (Africa) are under development at PGQO. Implementing these tests, which might result in provisional quarantine release, will require additional staff resources for the PGQO.

—*Rice.*—Molecular techniques are not required to accelerate pathogen diagnostic testing with rice, because the key pathogens are readily culturable bacteria. Additional technical assistance is needed to fully utilize new greenhouse and screenhouse space for the rice quarantine program.

—*Currants and gooseberries.*—A PCR-based assay for the reversion virus in these plants should be implemented, but this will require APHIS approval and additional staff resources for PGQO.

—*Potatoes and sweet potatoes.*— A PCR-based test for phytoplasma should be implemented to improve the accuracy and reliability of the potato/sweet potato pathogen detection, but would not necessarily accelerate the rate whereby germplasm is released from quarantine. Additional technical assistance is needed to fully utilize new greenhouse and screenhouse space and to bolster this molecular testing program.

Question. Have the germplasm materials at the Griffin, Georgia, and Pullman, Washington, facilities been tested for viability?

Answer. Of the 68,900 germplasm accessions at Pullman, WA, 32.2 percent have undergone germination testing at Pullman during the 11-year period of 1991–2001. Most of the germination tests were conducted during the last 6 years (1995–2001). Roughly one-half of the 68 percent of the collection that has not been tested recently comprises samples of legumes, which often survive 40 years or more in storage.

During the last 11 years, few of the more than 81,000 seed-propagated accessions at Griffin, GA, have undergone germination testing at Griffin; approximately 60 percent of the samples stored at Griffin have been tested recently for viability at the National Seed Storage Laboratory (NSSL), Fort Collins, CO, which provides important information for managing Griffin collection. There are 686 clonally-propagated sweet potato accessions at Griffin that are regularly checked visually for health and vigor.

Duplicate samples of 77 percent of the seed-propagated accessions from Griffin, GA, and 85 percent of the accessions from Pullman have been deposited at the NSSL, Ft. Collins, CO. The viabilities of many, but not all, of these duplicate samples were tested by NSSL before being deposited in long-term storage and the germination information made available to curators at Griffin, GA, and Pullman, WA, as was mentioned above.

Question. Do all the facilities have viability testing plans and procedures in place and do they have the resources sufficient to follow such plans and procedures?

Answer. No, not all of the NPGS facilities have viability testing plans and procedures in place, as some sites (e.g., Palmer AK; Columbus, OH; Parlier, CA) were only recently established, and the precise scope of their germplasm holdings is still under consideration. The preceding sites are still in the process of securing needed equipment, facilities, and other infrastructure. Some years ago, the NPGS conducted a system-wide effort to ensure that each existing NPGS site had an operations manual that included such viability testing plans and procedures. As a result, the "older" NPGS sites generally do have such plans and procedures in place, especially for major crops, where there may be extensive information regarding the expected long-term seed viability. In contrast, for wild species, or for "minor/specialty crops," such as many ornamental species, viability testing procedures have not yet been developed, so no testing procedures exist. More resources are needed to conduct research at NPGS sites and elsewhere to develop those standard assays.

The linchpin of the NPGS's viability testing program is the National Seed Storage Laboratory (NSSL) at Ft. Collins, CO, which preserves the "base" collection which holds duplicate samples of NPGS germplasm as a back-up to materials at the active sites. The NSSL conducts viability tests on all seed samples when they are initially received for deposit in long-term storage. NSSL's plans and procedures stipulate viability monitoring every 15 years for all samples with a viability percentage of 85 percent or higher when last tested. Due to budgetary limitations, this target has not been attainable, and the NSSL must rely on an outside laboratory to conduct at a fee about 2,500 tests each year. Although germination tests are standard, seed vigor testing would also be desirable, but insufficient funds are available to initiate such testing.

The NSSL's research program develops for the NPGS viability monitoring tools to predict longevity so that monitoring frequency is optimal, and to measure changes in viability non-destructively. At present, the NSSL scientific staff is insufficient for developing efficient and non-invasive viability assays for seeds, or to de-

velop molecular markers that evaluate genetic and environmental influences on seed quality. Furthermore, development of viability assays for wild species and "minor crops" is limited by insufficient quantities of seeds or other propagules for experimentation. Currently, technical staff is insufficient for mass producing experimental propagules, which involves very labor intensive procedures.

The resources available for implementing established viability plans and procedures vary considerably across the "active" NPGS sites, i.e., those that distribute seeds, tubers, and cuttings directly to scientists. Thanks to funding increases in fiscal year 2000 and fiscal year 2001, the genebank at Ithaca/Geneva, NY, has resources to implement testing plans and procedures aimed at maintaining seed germplasm collections at international standards. Similarly, potato samples at Madison/Sturgeon Bay, WI, are tested at least every five years, and this site currently has sufficient funds to conduct research on improving germplasm viability and on improving the efficiency of viability assessments. The site at Pullman, WA, has sufficient personnel, germination testing facilities, and testing protocols to assess seed viability, but there is a significant backlog of samples needing viability testing (over 60 percent of the collection). During this last fiscal year, resources were redirected for added support for viability assessment, but this site still needs one additional half-time worker to conduct requisite viability testing. The small grains collection at Aberdeen, ID, has a plan in place to monitor viability of all cultivated accessions every 10 years. For the wild relatives of crops, monitoring does not begin until the seed is at least 20 years old because most of the wild seed seem to retain viability longer. At Urbana, IL, funds are available for regrowing soybean samples every ten years and those of wild soybean relatives every 15 years, so that nearly all samples are of sufficiently high quality for distribution.

The NPGS site at Ames, IA, has developed detailed guidelines for viability testing that include a flow chart enabling planning and tracking the testing process for each accession, and recording all germination methods used. Each accession is tested generally at five-year intervals, although this interval can be reduced or lengthened, based on experimental results. Thanks to development of new custom software, and bar coding, the testing efficiency and accuracy have increased, thereby increasing the number of tests performed per year. There are still backlogs of germination tests for certain crops, and appropriate tests do not exist for all the species conserved but, as a whole, a recent assessment of this program found that the testing program is nearly meeting its goals.

Prior to the fiscal year 2001 budget increase, the Griffin, GA, site had no funds, personnel, facilities, equipment, or supplies available for germination tests. Established plans or procedures "in place" had little meaning because there were no means for conducting such tests. With the budget increase, a germination testing program is being established, but with suboptimal technical support and equipment. Consequently, it will require years to test the many (81,000 samples) there, and also test newly acquired or regrown samples.

Viability of cotton seeds are tested when materials are backed-up at NSSL, because the active site at College Station, TX, lacks resources for such testing. Such assays are crucial with some of the wild species with limited periods of seed viability, but resources are lacking for research in this area. Similarly, at Mayaguez, PR, lack of funds, personnel, and the large size of the collection has impeded progress with viability testing on sorghum, 5,000 of which may have very poor viability.

For some clonally propagated crops maintained in orchards (e.g., citrus), visual monitoring is sufficient for assessing viability. Staff at Davis, CA, and at NSSL are conducting pilot cryopreservation experiments on cherries and grape, but results to date have been disappointing. Pilot studies on embryo culture methods for fruit and nut crops have begun. Genetic fidelity testing for cherries and grapes is underway, and may have immediate impact on management methods. At College Station, TX, water delivery to orchards and greenhouses is the primary threat to maintaining pecan and hickory germplasm. Resources are lacking to monitor water quality.

Question. What percentage of the NPGS collection requires timely regeneration to maintain its genetic integrity? With current resources, and at the current rate of regenerating accessions, how long would it take the ARS to regenerate those accessions?

Answer. In our response, we assume that 1) "timely" means "during the next 2–5 years" (consistent with the 1997 GAO study of the NPGS), and 2) "regeneration" is relevant for the 400,000 + seed-propagated NPGS germplasm accessions. Because of the variable quality and quantity of data available, the accuracy and precision of the following percentages vary. Across the NPGS, the median percentage of collections that require regeneration during the next 2–5 years seems to be about 30 percent. The percentage information is provided for the record.

[The information follows:]

Selected NPGS collections	*Estimated percentage requiring regeneration during the next 2–5 years*
Tomato genetic stock (Davis)	20–50
Soybean (Urbana)	50
Cotton (College Station)	50–60
Seed-propagated fruits and nuts (Corvallis)	50
Seed propagated accessions (Ames)	20
Seed propagated accessions (Griffin)	30
Seed propagated accessions (Geneva)	2–97
Small grains (Aberdeen)	8–9
Seed propagated accessions (Mayaguez)	10–50
Seed propagated accessions (Pullman)	3
National Seed Storage Laboratory (Ft. Collins)	30

Regeneration rate is determined not only by fiscal resources available for that activity, but also strongly by the biological properties of each crop (breeding system, genetic constitution, growth rate, duration, etc.). Therefore, information for representative individual seed-propagated crops is presented. Because of the variable quality and quantity of data available, the accuracy and precision of the following figures vary. Across the NPGS, the median period required to regenerate these accessions seems to be more or less 9 years. But, importantly, for a substantial proportion of these accessions, especially of wild species (e.g., tomato, potato), research and development will be required to first develop methods for successful regeneration. The estimated years required to regenerate accessions is provided for the record.

[The information follows:]

Selected NPGS collections	Estimated years required to regenerate accessions
Tomato genetic stock (Davis)	3–7
Soybean (Urbana)	5
Cotton (College Station)	10–15
Seed-propagated accessions (Corvallis)	No resources are currently available for regenerating those accessions.
Seed propagated accessions (Ames)	2–23
Seed propagated accessions (Griffin)	12–15
Seed propagated accessions (Geneva)	1–25
Small grains (Aberdeen)	5–10
Seed propagated accessions (Mayaguez)	10
Seed propagated accessions (Pullman)	7–10
National Seed Storage Laboratory	Regeneration of base (Ft. Collins) collection is conducted at active sites.

Question. What resources are needed to develop the methodology to ensure long-term preservation of the viability of the clonally and seed propagated material in storage?

Answer. Resources are needed not only to develop effective seed storage or orchard/greenhouse preservation protocol (e.g., cryopreservation, green-house pot culture) that preserves viability, but also for more efficient methods (less time, less cost, fewer materials) of long-term preservation. In many cases, resources are needed to test the genetic fidelity/authenticity of stored materials.

The National Seed Storage Laboratory (NSSL) at Ft. Collins, CO, is the NPGS central site for long-term germplasm preservation. Although cryopreservation protocols exist for propagules (sexually or asexually derived) innately extremely tolerant of low temperature or moisture stresses, and for propagules sensitive to these stresses but, because of their small size (<1,000 cells), are amenable to other approaches, there are hundreds of species and tens of thousands of samples, for which cryopreservation methods are lacking. Despite some progress, many barriers remain for efficient cryopreservation of the former samples, and too few scientists are addressing these problems.

Plant material may often be insufficient for such experiments because methods are usually labor intensive; there is usually insufficient support staff to implement procedures on the wide scale required. More support scientists are needed to apply technology and more technicians are needed to enhance propagule production and processing and to implement a viability-monitoring program. Staff support is needed for further research on documentation of stress physiology of uncharacterized spe-

cies before they are placed in a routine storage environment, on greater longevity of propagules so that monitoring and regeneration frequencies can be extended, on greater capabilities to regenerate large quantities of high quality propagules, on assessments of genetic diversity within and among accessions and genetic shifts resulting from storage so that the size of collections can be optimized, appropriate samples can be archived, species or varieties lacking preservation protocols can be prioritized, and the impact of mortality on genetic diversity can be assessed.

Specific preservation protocols must be developed for species represented by more than 30,000 NPGS samples. Clonal protocols for liquid nitrogen storage are very specific to species or sub-species; these protocols must be adapted for hundreds if not thousands of species. A nondestructive seed viability monitoring test is needed to reduce the destruction of seeds during testing. The research to develop the latter will require extensive resources in addition to time to adapt protocols for germplasm storage.

NPGS sites that primarily manage clonally-propagated germplasm face many of the same resource issues. Current funding at Riverside, CA, is insufficient for developing methods for storing citrus seeds at cryogenic temperatures, so all citrus germplasm is maintained clonally as orchard trees, which is expensive. Similarly, much of the tropical germplasm at Hilo, HI, and Mayagüez, PR, is preserved in orchards or in pots in greenhouses. Resources are needed to develop reliable methods for long-term cryopreservation of tropical/subtropical clonally-propagated fruit germplasm at both sites. Thanks to research conducted previously at Hilo, HI, pineapple, breadfruit, and tea are stored in tissue culture for the medium term, but limited storage space and personnel impede progress. Funds for additional technical assistance are needed to back up in cryogenic storage and in vitro culture more of the small fruit and nut samples at Corvallis, OR. For fully a half of the collection, scientific techniques must be developed to do so. Additional facilities (a tissue culture lab facility), an additional scientist, technician, supplies, and equipment (growth chambers, laminar flow hood, microscopes) are needed at Ithaca/Geneva, NY, for long-term storage of clonally-propagated grape germplasm as buds or other tissues.

At Pullman, WA, continued development of infrastructure through capital improvements is needed to expand and improve greenhouse, screenhouse, and growth chamber space needed to develop seed increase protocols, or where the actual increases are conducted, because the accessions are either not adapted to the local area or because of diseases (primarily vial). Greenhouse seed increase provides not only the best yields per plant per accession, but also by far the best quality of seed. Similarly, at Aberdeen, ID, the paucity of greenhouse space is limiting the rate for regenerating the backlog of wild species.

For pecans and hickory, additional resources are needed to develop molecular genetic tools for analyzing the structure of genetic diversity in native populations. Such data will help with establishing a viable in situ conservation strategy, which would be the best for these native tree species. The research also may help establish improved, ex situ plantations selected for improved performance in particular geographic regions (from which continued selection can contribute to long-term regional improvement), for verification of cultivar identity, as well as for the long-term development of marker-aided selection to improve the efficiency of the breeding program. The molecular marker work is funded by a grant that expires this year. At current budget levels, there are no resources to continue using the markers in routine assays.

Sufficient resources are available to preserve the viability of clonally-and seed-propagated potato germplasm at Madison/Sturgeon Bay, WI. However, additional resources are needed to develop genetic markers for assessing the genetic fidelity/authenticity of stored potato germplasm. Similarly, the system for long-term preservation for cotton at College Station, TX, seems to be adequate, except that additional resources would be welcome for more rapidly moving new materials through the seed increase and document phases to be incorporated into the long-term base collection.

Methods are available for ensuring long-term preservation for the vast majority of species maintained at Ames, IA. But for some crops, appropriate protocols are not yet available. Staff at that site collaborate with staff at NSSL on those issues. Resources are currently unavailable to examine the genetic component of longevity under actual, long-term storage conditions, and genetic shifts in accessions as a result of the regeneration process itself, both independent of, and related to, genetic shifts under long-term storage conditions. Relatively few accessions at Ames, IA, are maintained vegetatively but they often possess special characteristics, for which reliable safe, long-term preservation methods are lacking. Such germplasm is maintained in field and greenhouse plantings, with no organized system of off-site

backup. Little is known about their long-term health, with respect to the broad range of microbes present as latent infections for extended periods of time.

The costs of ongoing, long-term planting or long-term maintenance in the greenhouse vary widely depending on re-propagation frequency, adaptation to field conditions, etc. Nevertheless, reliable protocols for slow-growth, in-vitro shoot-tip culture or cryogenic preservation of buds could decrease per unit preservation costs. Such protocols are generally lacking and, even when they are available, two important issues remain: (1) how easily can generic protocols be modified to work well on a broad range of genotypes, and (2) do the plants that are recovered after storage preserve the genetic integrity of the source material?

A research geneticist, additional lab technicians, and updated DNA sequencers are needed in Griffin, GA, to test the genetic authenticity of clonal germplasm stored in tissue culture and in the greenhouse. Methods for maintaining sweet potato via cryopreservation rather than the current labor-intensive tissue culture system are needed, not only to save time and money, but to reduce the risk of losing valuable germplasm. Increased funding for the molecular lab would also increase testing for duplication and genetic redundancy, which not only increase storage and regeneration costs, but also hamper evaluation efforts wherein genetically identical accessions may be assessed. Similarly, no genetic fidelity tests are conducted on sorghum in Mayagüez, PR, which is especially worrisome for accessions with low viability. Additional resources are needed for that genetic testing.

Question. Does the NPGS have the resources to effectively use geographic information system tools to identify gaps in the U.S. collection?

Answer. In addition to the resources available for geographical information systems (GIS) analyses, methodological and data quality factors may strongly affect how effectively GIS can identify genetic gaps in the NPGS's collection. Of course, the resources that have been available historically may have strongly affected the preceding factors.

First, for each crop or species under consideration, the strength of the association between genetic variation and ecogeographical factors must be determined before GIS analyses of ecogeographical data can be considered a reliable means for predicting genetic divergence or diversity. There are few resources throughout the NPGS to hire personnel with GIS expertise to integrate genetic diversity data with geographic information. NPGS sites such as at Ft. Collins, CO, have the potential to utilize the GIS to reduce duplication, improve the quality of the collection through core subsets, and identify locations for growout that would be cost efficient, but they lack funding for personnel to generate such genetic data, or with needed GIS background or computer skills.

Second, basic information about the degree of reliability for the ecogeographical information itself is generally lacking. GIS relies on the accuracy of the available latitude and longitude data to identify sites that environmental factors suggest may contain genetic variation valuable to sample. For example, the ecogeographical information available for the pecan and hickory collection at College Station, TX, lacks the precision needed for GIS analyses. Development of such information, a long-term project, is required for this site to use GIS techniques to integrate ecogeographical information with molecular estimates of genetic variation. The major limitations to progress are insufficient resources for personnel.

Third, lack of latitude/longitude/elevation data, or any accurate location data at all, may simply preclude use of GIS to analyze many thousands of older accessions (e.g., in citrus). As funds permit, locations such as Ames, IA, and Beltsville, MD, are retrospectively determining the latitude and longitude of the origin of NPGS accessions. But additional resources are needed for permanent data entry specialists to do that, and to computerize descriptive information recorded only on paper. But, in contrast, the Aberdeen, ID, site had sufficient resources to map almost all possible germplasm samples by their latitude and longitude with GIS software and electronic gazeteers.

Finally, lack of resources for identifying the optimal GIS approach and for confirming the validity of initial experiments may impede application of GIS to identify genetic gaps in the NPGS collection. For example, at Beltsville, MD, inadequate resources for technical support is greatly limiting implementation of an original approach for applying GIS technology to identify gaps in the NPGS collections and prioritizing acquisition needs. Resources are similarly lacking at Pullman/Prosser, WA, and at the soybean collection at Urbana, IL. In general, throughout the NPGS there are few resources for applying existing techniques to the many important crop genepools and very limited capacity for developing more sophisticated tools for more in depth analysis of collections, needs, and priorities.

Question. Does the NPGS have the resources to analyze the plant collections for gaps and the resources to prioritize the collections using this procedure?

Answer. As with the preceding question, factors other than resource availability, such as methodological and data quality issues, may be key for developing the means for applying GIS and molecular genetic analyses to managerial/curatorial decision-making, such as gap analyses and setting priorities for germplasm management.

First, let us presume that "gaps" mean absence from the collections of key genes, genotypes, varieties, etc. Before GIS technology can be applied to identifying gaps, and the technological merit of this approach assessed, basic information is needed regarding the genetic structure of crop genepools and their distribution in nature, farmers' fields, and in gene banks. Besides the major crops, relatively little is known about the total genetic diversity of other crop species; the genetic diversity within and among populations/accessions of a species; the number of accessions needed to fully represent the genetic diversity of a species; and the relationship between morphological traits, environmental plasticity and genetic diversity. Molecular analytical procedures must be developed for each species so that genetic relationships among genebanks samples can be estimated.

For example, little or nothing is known of the genetic diversity in many wild perennial sunflowers. A gap in the genetic coverage of the NPGS collection of wild relatives of sorghum is suspected, but a lack of genetic data makes it difficult to confirm this or to estimate the size of such gap. The current status of "wild" citrus and date palms in nature is unclear, and political barriers currently impede access to some nations where these crops originated. Much descriptive literature on these crops is very old (1800's) and probably not always accurate. Similarly, taxonomic treatments for many minor (especially tropical) and even some major crops are currently insufficient to identify gaps. Up-to-date taxonomic classifications, accurate data on native distributions, and access to important taxonomic reference data, all critical for analyzing gaps, may be lacking. With the current level of support, the staff of taxonomists associated with the NPGS struggles to adequately meet the ever-increasing demands for taxonomic data.

In some NPGS sites, lack of resources impedes the ability to conduct gap analysis with GIS and/or molecular approaches. At Pullman, WA, resources are needed to format the passport data so that it can be analyzed by GIS. Furthermore, once passport data are ready, both morphological and molecular markers must be combined in databases. For many of the species within its collection, NPGS lacks sufficient scientific staff or molecular genetic labs with high throughput capabilities to perform the prerequisite genetic assays. This is especially the case for large collections, e.g., 30,000 + sorghum samples managed at Mayagüez, PR, and Griffin, GA, where resources are not available to analyze the entire collection for gaps.

Resources are lacking to continue molecular analyses, funded by a competitive grant, that are providing critical baseline genetic data for pecans and hickories at College Station, TX. Furthermore, permanent "in-house" personnel trained in plant population analysis and interpretation are needed there. The genebank at Corvallis, OR, lacks resources for molecular analysis of temperate fruit or nut collections to identify gaps. Additional molecular tools, in conjunction with extant information on morphological traits and ecogeographical location, would provide a more precise estimate for genetic diversity in the collections. Where, such as at Aberdeen, ID, the necessary ecogeographical baseline data and GIS tools are available for initiating GIS assisted gap analyses, resources (money and techniques) may be lacking to evaluate samples at the molecular level and thereby identify gaps.

Limited genetic resources, often from competitive grants, have been available for NPGS scientists to complete an extensive survey of potato genetic variability and systematic relationships during the last 15 years, providing a detailed accounting of the gaps in the NPGS and other potato germplasm collections. Also, some "gap analyses" (that have not employed GIS) have been conducted on very small plant collections, where they also uncovered putative duplicates/redundancies, which may occur especially in poorly-characterized collections of clonally-propagated crops. For example, molecular analyses detected little genetic variation among samples of tannier at Mayagüez, PR. Analyses may also be conducted at the level of species, e.g., the Beltsville, MD, site is determining the presence or absence of wild crop relatives and the number of accessions for these species in the NPGS collections, then will use GIS tools to analyze the ecogeographic origin of existing accessions as a first step in the analysis of gaps and prioritization of acquisition needs.

In some cases, molecular analyses have successfully detected gaps in genetic diversity, and resources were available for NPGS scientists to collect new material to fill those gaps. A comprehensive molecular analysis of the pea collection at Pullman, WA, revealed that newly discovered genetic variants almost always occurred in samples from Turkey. As a result, several collecting expeditions were mounted in Turkey until it was believed that the genetic gap was filled. Similarly, genetic research

at Davis, CA, with wild relatives of the cultivated grape identified species that may be of special interest to grape breeders. As a result, scientists are planning to collect wild grape species from Armenia, and assess its diversity. Also, plans are underway to collect wild Chinese grape species in danger of extinction in nature. There are few Chinese grape samples in the NPGS, and those sample's properties suggest that this poor representation represents a major gap.

Question. What is the status of international efforts to exchange germplasm and is any germplasm located outside of the U.S. at a risk of loss? What agencies or entities are involved in assessing whether germplasm is at a risk of loss on an international basis?

Answer. During the last decade—especially during the last five years—developments in international and national legislation and diplomatic agreements have complicated, or sometimes precluded, free international exchange of germplasm. Part of this trend is the result of the philosophical change from considering germplasm the "common heritage of humankind," to formal recognition of nations' sovereignty over the germplasm within their own borders. The Convention on Biological Diversity (CBD) and other legislation now require that "prior informed consent" and arrangements for "benefit sharing" be established before germplasm can be exchanged. Although such provisions are considered by some as the basis for durable germplasm conservation and exchange, to some extent, they have slowed the rate of germplasm exchange, and sometimes impeded the ability of scientists to visit endangered locales and at least perform a "triage" to save crop germplasm. Negotiations that precede plant exchange are now considerably longer, more complicated, and consequently germplasm exchange may be more expensive than ever before.

Outside of the United States, destruction of natural and agricultural habitat and of traditional cultures is proceeding at an accelerated rate that threatens germplasm. Although other nations (especially in the developing world) have established genebanks and reserves for natural vegetation, on a global scale, the capacity to manage germplasm in gene banks or in reserves has probably not increased substantially. At present, many genebanks in other nations have very limited capacity, and conservation reserves are often not adequately managed. Also, on a global scale, enhanced capacity in some nations (e.g., several developing nations) has been "canceled out" by lost capacity in other nations (e.g., Russia, some nations of the Former Soviet Union), by cutbacks in funding to some of the CGIAR centers, etc. Consequently, germplasm outside of the U.S. is still at risk. As limited resources permit, staff of the NPGS are working with officials in Russia and elsewhere to place duplicate germplasm samples in the NPGS for safekeeping.

Finally, economic "globalization" has benefitted many worldwide through substantial expansion in international trade and through development of transportation infrastructure (e.g., roads, airfields, navigational channels), affording ever easier access to previously remote regions that may facilitate germplasm collection, tourism, agricultural development, etc. But, this access has also increased the danger to germplasm in nature, as formerly pristine regions are converted from traditional agriculture and/or natural habitats to more intensive agricultural and forestry practices. Concurrently, the traditional cultures of indigenous peoples, and their rich lore about plant uses, may be lost. Lastly, penetration into pristine regions provides invasion routes for additional exotic, invasive species which may rapidly deteriorate the landscape and endanger potentially valuable germplasm of traditional crops and their wild relatives.

The International Plant Genetic Resources Institute (IPGRI), an international agricultural research center (IARC) supported by the World Bank through the Consultative Group for International Agriculture Research (CGIAR), has as part of its mission the monitoring of germplasm loss internationally. Similarly, the Food and Agricultural Organization of the United Nations (FAO) maintains the World Information and Early Warning System (WIEWS) to disseminate information about germplasm at risk, and as an instrument for the periodic assessment of the state of the world's crop germplasm. The USDA/ARS National Plant Germplasm System (NPGS) collaborates closely especially with IPGRI on projects to assess the status of germplasm in specific crops, e.g., peanuts. The U.S. government provides 20 percent of the funding for the FAO, and the NPGS contributes information to the WIEWS.

Question. What is the availability and condition of collections at the international agricultural research centers and have the collections been evaluated adequately?

Answer. The availability and condition of the crop germplasm collections at the international agricultural research centers (IARCs), and the degree to which germplasm has been evaluated adequately, varies widely from IARC to IARC, and across the individual crop collections at each IARC. For some crops, samples from the IARCs are generally readily available, although they may not be adequately

evaluated. Recently, there has been a very active exchange of dry bean germplasm between NPGS at Pullman, WA, and scientists at CIAT, an IARC in Colombia. At other IARCs, unless NPGS scientists have established a collaborative research effort with that IARC's scientists, germplasm access may be problematic. Access by U.S. researchers to germplasm in IARCs or held by other countries may be seriously compromised as a result of the forthcoming FAO International Undertaking, which will regulate worldwide access to plant germplasm.

The quality of germplasm collections at the IARCs is highly variable. It is generally believed that resources for periodic viability testing of the collections held at the IARC's does not exist, therefore viability testing is not done. It is difficult to monitor the condition of collections without that information, but resources are generally not going to germplasm viability testing or regeneration on a routine basis at these centers. The NPGS site at Beltsville, MD, is assessing the quality of IARC collections with respect to species representation, numbers of accessions per species, geographic origin of accessions, etc. Eventually, this information may be used to compare the contents of IARC collections with contents of the NPGS collections to identify "global" gaps, redundancies etc.

Collections of cool-season legumes (chickpea, lentil, pea) at the International Center for Agricultural Research in Desert Areas (in Syria) and the International Center for Research in the Semi-Arid Tropics (in India) seem to be of generally high quality, and readily accessible to researchers. The International Center for Maize (Corn) and Wheat Research (CIMMYT) has excellent germplasm storage facilities, but the condition of their collections is directly related to their condition at the time of deposit, and varies greatly. In contrast, there are few germplasm collections of tropical/subtropical fruits at IARCs and they may not be of high quality or adequately evaluated. Banana and cacao may be exceptions, but even collections of these crops may deteriorate due to unstable political climate and lack of funding. Many clonal collections of tropical fruit crops in IARCs are unreplicated and accessions grafted into different and unknown rootstocks, thereby greatly complicating evaluations.

A molecular assessment of the genetic diversity in crops in both the IARC and U.S. collections would help the U.S. assess its needs, the countries where it could expect to exchange germplasm, and its interdependence on any countries holding valuable collections or wild relatives in situ. For example, additional evaluations of horticultural merit are needed for collections of white potatoes and sweet potatoes at the International Potato Center (CIP, in Peru), Furthermore, germplasm in most of the other IARCs and in national collections have not been evaluated well, or at all, for conditions and traits of benefit to U.S. needs. Indeed, most of the samples in IARC genebanks have not been evaluated adequately for performance under temperate conditions.

Finally, for some globally important crops, there are no IARC collections. For all practical considerations, the NPGS collection at College Station, TX, serves as the international collection for cotton, and the collection at Urbana, IL, serves a similar role for soybean.

Question. If there is not a substantial increase in the NPGS budget of $20 million as ARS requested, what are some of the forecast ramifications?

Answer. As mentioned in answer to a previous question, there were no formal agency or Departmental budget requests. The ramifications of a static NPGS budget for fiscal years 2002–2006 can be forecast from both a fiscal and a programmatic standpoint. From a fiscal standpoint, consider the current budget of $32.2 million, and assume the following: (1) inflation reduces purchasing power at a rate of 2.6 percent per year (the mean calculated from annual estimates for this period in the fiscal year 2001 Budget Analytical Perspectives); and (2) personnel costs increase by 3.4 percent per year (the mean calculated from annual estimates for this period in the fiscal year 2001 Budget Analytical Perspectives). Given the preceding figures, and a static budget during fiscal years 2002–2006, the purchasing power of the NPGS budget would decrease by 14 percent from inflation. During the same period, the current percentage (15 percent) of the NPGS budget devoted to non-salary items (equipment, operations, travel) would decrease by 18 percent to 13 percent. Adjusted for inflation, the non-salary budget would effectively be reduced to less than 10 percent of the total NPGS budget. And, at certain NPGS sites, that percentage would be substantially less than 10 percent.

A static budget during fiscal years 2002–2006 would have severe programmatic ramifications throughout the NPGS. The budgets of some sites are already running deficits that are accompanied by substantial programmatic effects. Funding at many sites would be insufficient not only for salaries of temporary employees, but also for some permanent curatorial staff. At many sites, no funds would be available for util-

ities, travel, operations, facility repairs or expansion, supplies, or equipment. Position vacancies would be abolished to provide funds for operations.

With a static budget during fiscal years 2002–2006, the NPGS would by necessity focus nearly exclusively on providing security for databases and for germplasm stored in coldrooms, greenhouses, and field plantings. Purchase of equipment key for germplasm security might be precluded. Acquisition of endangered germplasm would slow or cease, as would evaluation of germplasm for agronomically or horticulturally valuable traits. The rate of duplicating (backing-up) germplasm and testing it for health, viability, or genetic integrity would slow or cease. Germplasm would move through the quarantine process more slowly, or not at all. Germplasm currently at risk would perhaps be endangered further, whereas additional germplasm might also be endangered. As the funds available for maintaining each accession shrank, the supply of germplasm would shrink, which would limit germplasm distribution, and impede the progress of important research and breeding programs. Should additional funds become available in later years, they would initially be devoted to restoring the NPGS to its state in fiscal year 2002, rather than to progress on new initiatives.

A static budget would preclude the NPGS from exploiting the new tools of genomics and biotechnology to develop more effective and efficient means of maintaining and regenerating germplasm. The ramifications would be especially severe for clonally-propagated crops, many of which cannot now be preserved by long-term tissue culture or cryopreservation.

Lastly, there is currently more demand (more frequent requests, and more samples per request) from scientists for germplasm for research, and more public interest in conserving genetic diversity and in exploiting it for crop improvement, than at anytime in the past. For example, soybean farmers through the United Soybean Board and state checkoffs have been and still are investing millions to exploit soybean germplasm. Researchers are already finding new genes for improved levels of disease resistance and yield. Genomic technology is identifying loci and allelic variants important for yield, seed composition, disease resistance and other economically important traits in soybean, tomato, and other crops. The major funding increases for plant genomic research at NSF will generate many new specialized genetic stocks for the NPGS to manage. For example, NSF-funded research will generate at least 50,000 new maize (corn) genetic stocks, which would more than double the size of the NPGS maize stock center. Just when researchers can use germplasm more effectively and efficiently than ever before, just when its clientele is demanding more from the NPGS, and just when the NPGS, if sufficiently funded, could deliver more than ever before to its customers, the NPGS would struggle just to maintain staff, facilities, and germplasm.

Question. If NPGS received an increase of $10 million for fiscal year 2002, what would you be able to accomplish with the additional resources?

Answer. An NPGS-wide $10 million funding increase would enable the NPGS as a whole to accelerate substantially its progress in all facets of plant genetic resource management. As a result, the time needed to regenerate accessions that are endangered because of low seed number or viability would be shortened dramatically, thus safeguarding much of the germplasm currently at risk. An additional 6–7 scientists could be hired. The number of permanent, full-time technicians, information management personnel, or support scientists could be increased by about 40. At sites that employ substantial crews of part-time or seasonal workers, many more of these workers would be hired.

More germplasm would be safeguarded by newly developed cryopreservation and in vitro culture technologies. The genetic diversity in entire collections could be characterized by new, high throughput methods for assessing genetic diversity. Funds would be available to adapt the latest technology of genomics and bioinformatics to germplasm management by hiring scientists trained in genome analyses, bioinformaticists, and computational biologists. New, specialized databases would be constructed to meet specific user needs. Some genebanks would have the resources to begin to distribute germplasm in the form of isolated, purified DNA for molecular studies.

Costly new specialized facilities, e.g., specialized greenhouses, screenhouses, growth chambers, and laboratories, could be constructed. New greenhouses and screenhouses are needed throughout the NPGS, especially if new funding were available to intensify germplasm regeneration, maintenance, and quarantine programs. With crops that are cultivated worldwide, the genetic variability and ecological adaptation within the crop are so broad that no one site is suitable for cultivating all varieties in the field, so some must be grown in greenhouses. Furthermore, until in vitro culture techniques are developed for particular clonally-propa-

gated germplasm, greenhouses and screenhouses can serve as back-up sites for accessions that are now maintained solely in orchards at other sites.

Question. Does the NPGS have sufficient resources to handle the projected increase in specialized genetic stocks generated by the publicly funded plant genome programs? Please provide the dollar amount and the percentage of the NPGS budget for specialized genetic stocks on a location-by-location basis.

Answer. During the next decade, the specialized genetic stocks and research tools produced by public plant genome projects supported by the National Science Foundation and USDA/National Research Initiative (NRI) will substantially increase the size of the NPGS's specialized genetic stock collections. If the funding currently available for supporting these stock collections does not increase proportionately, then resources will not be sufficient for optimally conserving and distributing these valuable research tools.

For example, managers of pea, common bean, and lettuce genetic resources at Pullman, WA, are being asked to curate numerous special genetic stocks developed for gene mapping and characterization projects supported primarily by the NRI, but the personnel, equipment, and facilities currently are insufficient to do so. Current funding and facilities devoted to tomato and potato genetic stocks would need to be expanded extensively to handle thousands of new genetic stocks that may be generated by public tomato or potato genome projects.

Genome projects will increase the numbers of maize (corn) genetic stocks enormously. One large maize genome project funded by NSF in 1999 is generating ca. 50,000 new genetic lines. As a result, the maize genetic stock collection at Urbana, IL, will require at least one additional technician and accompanying increased budget for operations to manage those lines alone. As the stocks arrive during the next few years, additional climate-controlled seed storage space must be available, which will require construction. New greenhouses are needed for cultivating some of the new stocks safely. Thus, the impact of this one project on the NPGS will be on the order of $50,000–$75,000 annually, adjusted upward for inflation, for the foreseeable future. And that quantity reflects only increased operational costs: capital improvements (greenhouse, cold storage space) would further increase the total cost. The current ARS base budget for the maize genetic stock collection does not suffice even for handling the new genetic stocks generated just by that one (albeit large) project. It is uncertain how many more such projects will be funded by NSF or NRI in the future, but each has the potential of increasing the demand on the NPGS's resources by a similar amount.

Similarly, funds have not been available to maintain cotton genetic stocks at College Station, TX, that cannot be managed according to routine procedures for this crop. It is anticipated that a number of publicly-funded cotton genome projects will deposit genetic stocks in the collection, especially because the projects are supported by grant funds, which will expire soon.

Soybean genetic stocks currently comprise little of the soybean collection at Urbana, IL. It is uncertain whether the numerous soybean genome projects will greatly increase the number of genetic stocks incorporated into that collection. At present about 1.4 percent of the 100,000+ samples at the National Small Grains Collection at Aberdeen, ID, are genetic stocks. Current resources are sufficient to manage these stocks.

Furthermore, resources are needed to conduct research (at Ft. Collins, CO, and elsewhere) on how to effectively conserve some genetic lines with altered synthesis of and response to plant growth regulators. Their seeds are not amenable to conventional storage.

A summary of the fiscal resources devoted specifically to managing genetic stock collections is provided, site by site. One research project at Urbana, IL, is devoted completely to managing such a collection (for maize, i.e., corn). For other crops, genetic stock collections are often considerably smaller than that for maize, and these efforts are thoroughly integrated with much larger general crop germplasm management efforts. In these cases, a relatively small percentage (<10 percent) of total funds in the relevant research project is devoted specifically to managing genetic stocks. For the total NPGS budget of ca. $32 million, an estimated $587,600, or 1.8 percent, is devoted to managing crop genetic stocks.

[The information follows:]

Site	Percent of relevant research project devoted to genetic stocks	Funds
Aberdeen, ID (wheat and barley)	6.0	$83,900
Urbana IL (maize)	100.0	357,200

Site	Percent of relevant research project devoted to genetic stocks	Funds
Urbana, IL (soybeans)	4.0	27,700
Ithaca/Geneva, NY (tomato) (funds transferred to University of California, Davis, CA)	6.7	54,300
College Station, TX (cotton)	4.0	58,800
Pullman, WA (pea)	0.3	5,700

AGRICULTURAL RESEARCH SERVICE (ARS) BUILDINGS AND FACILITIES

Question. The President's fiscal year 2002 budget proposes a $44 million reduction in funding for Agricultural Research Service buildings and facilities. The President's budget blueprint indicates that the Department will conduct a comprehensive review of overall facility needs. Agriculture research facilities have been reviewed on numerous occasions. The last I am aware of was submitted in August of 1999 by the Strategic Planning Task Force required by the 1996 Farm Bill to conduct a study of USDA research facilities and report back to the Secretary of Agriculture and the Congress. Why is a new, comprehensive facilities' review needed? What does the Administration hope it will accomplish that the others did not? What guidance has been given for this review; who will conduct the review; and when is it expected to be completed?

Answer. Comprehensive review of USDA research facilities is needed as part of the Administration's review of budget proposals and priorities for preparation of the fiscal year 2003 and future budgets. Although no formal guidance has been issued regarding the review of facility needs, it is anticipated that existing reports will be utilized for this review. Updated information is required, however, to determine long-term cost commitments for projects, utilization rates for existing space, and other determining factors that impact capital investment decisions. In addition, an analysis of research program priorities as they relate to facility condition should be part of our new analysis.

Question. The Congress has initiated funding for a number of projects which are needed and supported by the Department and the ARS even if they do not make the Administration's priority list for inclusion in the President's budget request. Given budgetary constraints, these projects have been funded incrementally over a number of years. A number of projects funded in past appropriations Acts can now be completed if the final increment of construction funding is provided for fiscal year 2002. Given the investment made to date and to avoid further escalation in total cost, wouldn't it make more sense to complete these projects rather than to initiate new projects or new phases of projects as the President's fiscal year 2002 budget proposes?

Answer. There are times when priorities change or when projects are recognized as local or regional priorities when they are not part of the national research agenda established in the annual budget process. Projects chosen for funding in the 2002 budget are those serving national needs, including the major regional research centers of the Agricultural Research Service. Most of these projects are continuing long-term modernization efforts at existing facilities. While prior year investment to fund construction projects is an important factor and requires our prudent review, the ultimate goal of completion does not serve as the decisive measure when determining priority for funding proposals.

Question. The fiscal year 2002 budget requests $3.762 million to continue modernization of the Plum Island Animal Disease Center in Greenport, NY. Research on foot-and-mouth disease and other foreign animal diseases that are an ongoing threat to livestock is currently conducted at this location. Are the current facilities at Plum Island adequate to conduct this work?

Answer. The requested modernization of the Plum Island Animal Disease Center (PIADC) in Greenport, New York is an essential component of the requirement to ensure the successful research on Foot-and-Mouth Disease (FMD) and other foreign animal diseases. The facility, although safe, is not a state-of-the-art facility. The high containment animal housing space is limited and currently is being used for research on FMD. Modernization of these research and diagnostic facilities is critical if we are to meet the threats posed by exotic foreign animal diseases to U.S. American agriculture and to human health worldwide, as PIADC is the only Federal U.S. facility where research of this caliber can be conducted.

Question. Funding of $20.5 million has been provided to date for the Western Human Nutrition Research Center, Davis, CA. It was my understanding that the project scope had been down-sized to enable the project to be completed within the

funds appropriated. The fiscal year 2002 budget requests $5 million to restore the facility to its original scope. Why?

Answer. The Agricultural Research Service was appropriated $20,350,000 for the design and construction of this facility. However, because of escalating building and construction costs in California, the facility's original scope had to be reduced from 49,000 GSF to 43,000 GSF to meet the funding available for this construction project. While such a down-sized facility would still accommodate the projected staffing level of 16 scientists, the ARS space allocations would be reduced for most functions, including lab space, human studies space, offices and storage areas. Moreover, the down-sized facility would not provide room for future program growth which could only be accommodated in space in other university-owned buildings on the UC-Davis campus. The benefits of consolidation in a single facility—to ARS and UC-Davis campus—would be foregone.

INFORMATION TECHNOLOGY/SECURITY

Question. On April 30, 2001, the Chicago Tribune reported that due to lax computer security, the National Agricultural Statistics Service (NASS) has left highly sensitive crop forecasting data vulnerable and open to hackers and others who would want to profit from having access to such data. What has the Department done to investigate this matter and what steps has it taken to ensure that vital data such as this throughout the Department and at its data center in New Orleans and Kansas City are adequately protected from unauthorized access and misuse?

Answer. The Office of the Chief Information Officer (OCIO) has examined the issues raised in the Chicago Tribune article and informed me that the allegations are misleading. This is due, in part, to misunderstandings of NASS security procedures and the perceived threat.

Both OCIO and Office of Inspector General (OIG) have concluded their reviews of this issue. OIG has issued an opinion that NASS information is secure. They offered some recommendations to further tighten security and OCIO is working to help strengthen NASS's security program in identified areas. In addition, security reviews have been concluded at the Department's major centers. I will have OCIO provide more specific information on these security issues.

[The information follows:]

OCIO is currently working with the General Accounting Office (GAO), which has begun its own review of NASS security practices. Information related to the NASS crop forecasting process and security of the forecasting data has been provided. In addition, NASS systems are currently on OCIO's oversight review plan. A comprehensive security review will be conducted following the conclusion of the GAO review.

In November, a site assessment team, comprised of security specialists, conducted an onsite security risk assessment at the USDA National Finance Center (NFC). The team reviewed NFC's computer and telecommunications environment. Additionally, they interviewed security personnel to determine if security measures, both in place and planned, are adequate to protect the integrity, availability and safety of NFC's information resources. The review established a security baseline for measuring progress at NFC and resulted in numerous findings, most of which were easily remedied. Others, however, will require additional follow-up efforts to adequately mitigate. Follow-up configuration management training also resulted from this review. None of the vulnerabilities found related to the potential compromise of NASS data.

The Cyber Security Program Office staff recently concluded security reviews (both physical and cyber-security) of IT facilities at the National Information Technology Center (NITC) in Kansas City. The NITC review assessed security measures already in place and planned for NITC. The review was conducted to determine if measures are adequate to protect the information resources hosted at NITC, and also establishing a security baseline for measuring future progress and mitigating risks. This review was similar to one conducted recently at the National Finance Center (NFC) in New Orleans and is part of Cyber Security's risk-based security review program.In addition, contracted security specialists recently completed an exhaustive study of NITC security requirements and existing security controls. Recommendations for improvement in NITC security posture have been delivered and are currently under consideration by NITC and OCIO management. These recommendations include an analysis of alternative methods for encrypting sensitive data managed by NITC systems.

Question. Over the last several years we and others have raised questions and expressed concerns about USDA's management of and plans associated with its multi-billion dollar effort to modernize business processes and information technology for

its county based agencies. What assurances can you give us that this critical effort is on track and is being managed in a cost-effective and efficient manner?

Answer. The USDA Chief Information Officer has been assigned direct management responsibility for the information technology portion of the Service Center Modernization Initiative (SCMI) and has taken steps to ensure that this effort is managed cost-effectively and efficiently. A central management structure, headed by an Office of the Chief Information Officer (OCIO) executive and assisted by a central project management office manages the effort. The OCIO has also engaged experienced private-sector support to provide assistance. According to OCIO, integrated project plans are being used to ensure that the project is managed in an efficient and cost effective manner. Funds provided by the Congress for this initiative are being managed by the OCIO, and the National Food and Agriculture Council and the OCIO develop budgets and monitor spending. Status reports are prepared and circulated internally, and OCIO also submits quarterly reports to Congress on implementation of the Common Computing Environment.

Question. For some time, USDA has been trying to improve its financial management systems, which includes implementing its Foundation Financial Information System (FFIS). Where does USDA stand in resolving its financial management problems?

Answer. USDA is making significant progress in implementing FFIS. The Department's largest agencies are now using FFIS, and by October 1, 2002, all USDA agencies will be using FFIS. FFIS is intended to be the foundation for other departmentwide or "corporate" systems initiatives needed to ensure that the program and financial data fed into FFIS is reliable. The Department has been formulating plans for these corporate systems and will be implementing them in the coming years. We will also address agency-specific financial reporting problems, which together with improved financial management systems, should improve our audit opinion in fiscal year 2001.

Question. Where does USDA stand on implementing the Freedom to E-File Act for enabling farmers and others to access and file paperwork electronically with the Department? Does USDA plan to implement GAO's recent e-File report recommendations?

Answer. In the short term, we are continuing to expand the number of redesigned forms available on the common Service Center e-Government web site. The initial requirement of the Freedom to E-File Act was met through the deployment of commonly used Rural Development, Farm Service Agency, and Natural Resources Conservation Service forms to this site.

USDA is in agreement with the recommendations in a recent GAO report on our implementation of the Freedom to E-File Act. A senior executive is leading our e-Government efforts. He is working with agency e-Government executives on department-wide and agency-specific plans to implement e-Government programs and processes, consistent with legislative requirements and GAO recommendations.

Question. Table 22–1 of the President's budget shows that total information technology (IT) investments for USDA will increase from $1.383 billion in fiscal year 2001 to $1.488 billion in fiscal year 2002. What are the major and significant projects that will be supported by the fiscal year 2002 funding level requested? Did USDA's CIO and Executive Information Technology Investment Review Board (ITIRB) review and approve each one as part of USDA's fiscal year 2002 capital planning and investment control process? Were any problems identified as part of their review of these projects and, if so, what actions were taken to address them? Which funded projects were not part of USDA's fiscal year 2002 capital planning and investment control process, and why was each project excluded from this process?

Answer. I will have the Chief Information Officer provide that information for the record.

[The information follows:]

USDA's CIO and Executive Information Technology Investment Review Board (EITIRB) reviewed and prioritized all major projects as part of USDA's fiscal year 2002 capital planning and investment control process. A project is defined as "major" if it meets one of several criteria, such as having a total life cycle cost greater than $50 million, has a significant multi-agency impact, is mandated by legislation, or is identified as a priority by the Secretary. Significant investments are those which do not meet the criteria to be classified as "major", but are still deemed significant to an agency's business processes. The EITIRB does not review significant projects although these projects are still part of USDA's Capital Planning and Investment Control (CPIC) Process. Significant investments are reviewed at the agency level, and OCIO is working with agencies to ensure that each agency has set up IT executive review boards to review and approve significant and other information

technology investments. Significant investments are also reviewed by the CIO through USDA's IT Investment Moratorium. Small IT projects and activities that are neither classified as major or significant, as defined by the Office of Management and Budget are not part of the CPIC process.

Issues or concerns raised during the EITIRB's review are addressed by meeting with affected investment principals, requesting improved/clarifying documentation of proposed alternatives, and monitoring of progress to meet agreed upon objectives. Investment activities may be restricted until all conditions are met.

Following is a list of the major and significant information technology investments proposed as part of the fiscal year 2002 budget for the record.

MAJOR IT INVESTMENTS PROPOSED FOR FISCAL YEAR 2002

Farm and Foreign Agricultural Services.—FSA–CORE Accounting System (CORE); FSA-Processed Commodities Inventory Management System FNS/AMS/FSA; RMA-Emerging Information Technology Architecture; RMA-Infrastructure Modernization, Support, and Training (IMST).

Food, Nutrition and Consumer Services.—Food Stamp Program Integrated Information System (FSPIIS) Redesign; Special Nutrition Programs Integrated Information System (SNPIIS) Redesign; Food Acquisition Tracking and Entitlement System (FATES) FNS/AMS/FSA; Agency Financial Management System (AFMS); FSPIIS Legacy System; SNPIIS Legacy System; Electronic Benefit Transfer (EBT)—Grants to States; Advanced Planning Documents (APDs)—Grants to States.

Food Safety.—FSIS Automated Corporate Technology Suite (FACTS); FSIS-Field Automation Information Management (FAIM).

Natural Resources and Environment.—FS-Project 615 (IBM) FS IT Infrastructure; FS-Integrated Personnel System (IPS); FS-Connect Human Resources; FS-Timber Information Management (TIM); FS–INFRA; FS-Natural Resources Information System (NRIS); NRCS-New Combined Administrative Management System (CAMS–HR) NRCS/FSA/RD; NRCS-Data Acquisition.

Research, Education, and Economics.—REE Information System (REEIS).

Rural Development.—Dedicated Loan Origination and Servicing System (DLOS); New Guaranteed Loan System RD/FSA; Rural Utility Loan Servicing System; Program Funds Control System RD/FSA; Automated Multi-Housing System.

Marketing and Regulatory Programs.—AMS-Livestock Mandatory Price Reporting; APHIS-Integrated System Acquisition Project (ISAP).

Departmental Administration.—Integrated Acquisition System (IAS); Employment Complaints Tracking System (ECTS).

Staff Offices.—OCIO-Universal Telecommunications Network (UTN); OCIO-Service Center Modernization Initiative (SCM–IT); OCIO-Capital Planning and Investment Control WI–TIPS (CPIC); OCFO-Foundation Financial Management Information System (FFIS); OCFO-Payroll Engine; OCFO-Thrift Savings Plan (TSP).

SIGNIFICANT IT INVESTMENTS PROPOSED FOR FISCAL YEAR 2002

Farm and Foreign Agricultural Services.—FSA-Grain Inventory Management System (GIMS); FSA-Management of Agricultural Credit Systems (MAC); FSA-Debt and Loan Restructuring System (DALRS); FSA-Farm Loan Information and Delivery System; FSA-Farm and Home Plan (FHP); FSA-Guaranteed Loan System (GLS); FSA-Cotton Management Systems (CMS); FSA–AMTA Enrollment and PFC Payments System; FSA-Acreage Reporting and Compliance Systems; FSA-Automated Price Support System (APSS); FSA-Geological Information System (GIS); FSA-Common Computing Environment (CCE) Hardware and Software; FSA-Information Systems Security Program; FSA-Field Office Telecommunication; FSA-Field Office Voice and Data Support; FSA–LAN, MAN, WAN, and Server Hardware; FSA-Microcomputer Hardware—KC Complex; FSA–PC Software and Support; FSA-Service Center Hardware Maintenance; FSA-Provide Microcomputer Hardware and Software; FSA–LAN/WAN/Voice Project—Service Center Implementation; FAS-Financial Accounting and Reporting System (FARS); FAS-Overseas Computer Systems; FAS Core Information and Communication Systems; FAS-Wide E-Commerce (GPEA & FFMIA Implementation).

Food, Nutrition, and Consumer Services.—EBT–FNS Direct Operations; EBT—Account Management Agent (AMA); Food Program Information Infrastructure Modernization (FPIIM); FSP—Certification and Issuance Support (DRS, CRIMS); FSP—Store Tracking, Authorization and Redemption System (STARS); Automated Funds Control System (AFCS).

Food Safety.— Performance Based Inspection System; Laboratory Information Management System Security.

Natural Resources and Environment.—Forest Service FFIS; FS-National Financial Applications; FS-Central Accounting System (CAS) Feeders; FS-Automated Timber Sale Accounting System; FS-Budget & Ledger System for CAS; FS-Enterprise-wide Data Warehouse; FS-Budget Formulation & Execution System; FS-Automated Land Project (ALP); FS-Weather Information Management System (WIMS) FS-Resource Ordering and Status System (ROSS); FS-Forest Inventory & Analysis; FS-Radio Communication; NRCS-Financial Management Information System—Legacy; NRCS-Water and Climate Information System; NRCS-Strategic Analysis and Assessment Information System; NRCS-Telecommunication Infrastructure.

Research, Education, and Economics.—ARS-Radio Program; ARS-Integrated Program Management System (RMIS redesign); ARS-Biotechnology; Cooperative Research, Education, and Extension Management System (C–REEMS); NASS-Estimates Processing and Dissemination; NASS-Census and Survey Processing Systems; NASS-Information Technology Support and Delivery; NASS Research System.

Rural Development.—Program Loan Accounting System RD/FSA; Centralized Help Desk; Data Warehousing; Paperwork Elimination; Credit Reform.

Marketing and Regulatory Programs.—Automated Targeting System (ATS); Wildlife Services MIS 2000; Port Information Network Operations (PIN-Ops); Market News.

Question. USDA's Chief Information Officer's (CIO's) fiscal year 2002 budget shows that more that $60 million in working capital funds will be used for IT projects in fiscal year 2001 and fiscal year 2002. What specific IT projects were funded out of the Department's working capital fund in fiscal year 2001 and which specific projects have been approved for fiscal year 2002?

Answer. The Office of the Chief Information Officer uses working capital funds to support both the National Information Technology Center (NITC) and the Telecommunications Services and Operations (TSO).

The NITC provides enterprise server services and application development services to governmental agencies both inside and outside the Department of Agriculture. The NITC does not fund projects per se. NITC is a data center and provides data center services to USDA and non-USDA customers on a competitive, 100 percent fee-for-service basis. NITC services include a wide range of IT infrastructure support to achieve effective mission performance and program delivery for customer agencies. According to OCIO, current major initiatives NITC is undertaking include: cyber security and disaster recovery planning, and continuing to strengthen its IT infrastructure to support customers' needs as they move to e-Government service delivery.

TSO's working capital fund operational projects are based on continuing upgrades to support wide area network services, local area network systems, and a variety of other telecommunications services. According to OCIO, TSO efforts are now focused on the USDA Universal Telecommunications Network which will provide all USDA agencies with cost-effective wide area network services, and improving basic local area network services.

Question.—The fiscal year 2002 budget for USDA's CIO shows $7.6 million in capital equipment under the working capital funds. What will these funds be used for?

Answer. I will have the Chief Information Officer provide that information for the record.

[The information follows:]

USDA's CIO fiscal year 2002 capital equipment under the working capital funds breaks down as follows:

Enterprise Server Services—NITC	$6,425,000
Application Development Services—NITC	250,000
Business Services—TSO	40,000
Network Engineering—TSO	375,000
Computer Services Unit—TSO	55,000
Network Services—TSO	500,000
TOTAL	7,645,000

Funds expended for capital equipment maintain the dependability and cost effectiveness of NITC data center hardware and software. As new technology is released, NITC upgrades enterprise server configurations to keep current, vendor-supported versions of hardware and software for the NITC customers. In addition to purchasing enterprise server CPU hardware/software, NITC is also purchasing environmental control equipment, data storage equipment, mid-range computer technology, telecommunications equipment, LAN server equipment, web security and application development tools. All of these capital equipment outlays are in response to customer demands and, as stated previously, replenished every year on a 100 per-

cent fee-for-service basis. Furthermore, these expenses are depreciated to NITC customers over a period of time.

TSO's working capital fund estimated capital investment dollars for fiscal year 2002 will be used to upgrade existing systems and to purchase essential equipment including: Oracle software upgrade, test bed server, integration of the video system infrastructure, South Building renovation (new switches) phase III, three firewalls, Local Area Network (LAN) upgrade, intrusion detection, spare router cards, and a network modeling tool suite.

Question. USDA's CIO budget shows that a total of $3,383,045 of Y2K emergency supplemental funds remain to be obligated in fiscal year 2001. Why are these funds still needed and for what specific purposes will they be used?

Answer. According to OCIO, the Department of Agriculture fiscal year 2001 carryover balance is targeted for continued Year 2000 conversion activities in fiscal year 2001, along with payment of services rendered but not yet billed to the Department, including telecommunications services. The dollars being spent are targeted toward a wide spectrum of non-mission critical Year 2000 compliance expenditures, which include scientific and laboratory equipment upgrades, hardware upgrades and replacements, software upgrades and replacements, telecommunication system remediation and program management.

Question. USDA's budget shows that $2.036 million of the remaining ADP cap was still unobligated as of the beginning of fiscal year 2001. What's the status of these funds and what activities will they fund?

Answer. The $2.036 million remaining under the CCC ADP cap will be expended by the end of fiscal year 2001. The funds under the ADP cap will be used to cover essential basic operating costs and maintenance of legacy systems.

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

Question. What are USDA's key performance goals for improving the management and use of information technology throughout the Department during fiscal years 2001 and 2002?

Answer. The following are USDA's information technology goals and performance goals for fiscal years 2001 and 2002:

—Establish a common computing environment for USDA Service Centers, which includes hardware, software, security, websites, telecommunications and databases.

—Transition to an e-Government environment.

Question. What key goals were not met and why?

Answer. In fiscal year 2000, key IT goals for the Department were set forth in the OCIO annual performance plan; all key targets were met or exceeded. The Department will evaluate its success in meeting the above performance goals at the close of Fiscal years 2001 and 2002 and make information available on the goals achieved and not achieved at those points.

SERVICE CENTER MODERNIZATION INITIATIVE (SCMI) AND PLAN

Question. USDA funds its Service Center Modernization Initiative (SCMI) effort through various appropriations and accounts. This includes Common Computing Environment (CCE) direct appropriations, obligations from other appropriation accounts, emergency and supplemental funding provisions, additional contributions/funds from FSA, NRCS and RD's salaries and expense and other accounts, and from CCC ADP and other section 11 accounts. Provide a consolidated table related to the Service Center Modernization Initiative that will include all such accounts for Fiscal years 2000, 2001, and 2002. Also include unobligated balances, a justification for each of the fiscal year 2002 budget items, an explanation of how they relate to the overall effort, and whom at the department is responsible for managing and overseeing each of these funds.

Answer. The Service Center Modernization Initiative (SCMI) is critical to making the Department's field office structure leaner, more efficient, and customer-focused. Significant progress has been made in collocating FSA's, NRCS', and RD's field offices into one-stop USDA Service Centers. Key to the success of the SCMI is the establishment of a common computing environment (CCE) that allows the Service Center agencies to share information and reduce the redundant requests, office visits, and paperwork faced by customers participating in multiple programs. CCE is also critical to meeting the requirements of the Freedom to E-File Act e-Government. I will have the detailed information you requested provided for the record.

[The information follows:]

SERVICE CENTER MODERNIZATION FUNDING SOURCES AND LEVELS

[Dollars in Thousands]

Activity	Actual fiscal year 2000	Estimate fiscal year 2001	President's budget fiscal year 2002
BPR/Management:			
Business Process Reengineering:			
FSA	$6,249	$3,303	$11,350
NRCS	3,400	3,100	1,700
RD	1,800	3,300	2,429
Sub-Total	11,449	9,703	15,479
Change Mgt./Program Mgt:			
FSA	1,050	437	266
NRCS	710	295	180
RD	457	190	116
Sub-Total	2,217	922	562
Total BPR/CM	13,666	10,625	16,041
Integrated Technology:			
Common Computing Environment:			
CCE Funds	2,201	69,768	44,369
FSA	7,229	4,600	4,600
NRCS	6,999	3,000	3,880
RD	1,929	3,800	4,600
Sub-Total	18,358	81,168	57,449
Telecom.Lan/WAN/Voice:			
CCE Funds	0	0	15,000
FSA	1,734	3,640	4,313
NRCS	1,783	3,505	3,269
RD	1,733	2,129	2,419
Sub-Total	5,250	9,274	25,001
Total, Integrated Technology	23,608	90,442	82,450
Base Data Acquisition (BDA):			
FSA	1,713	1,919	5,153
NRCS	15,350	15,680	16,090
Total, BDA	17,063	17,599	21,243
Funding Source Totals:			
CCE Funds	2,201	69,768	59,369
FSA	17,795	13,899	25,682
NRCS	28,242	25,580	25,119
RD	5,919	9,419	9,564
Grand Total	54,337	118,666	119,734

Note: Fiscal year 2001 and 2002 levels subject to change based on availability of agency contributions. Totals may not add due to rounding. FSA's funding comes from its salaries and expenses account, RD's funding comes from its salaries and expenses account, and NRCS's funding comes from its conservation operations account.

(a) Includes fiscal year 2000 appropriation provided to the Office of the Secretary for CCE that was obligated in fiscal year 2000 and fiscal year 2001 as well as funds appropriated to the CCE account. Fiscal year 2001 amount includes $40 million provided through the fiscal year 2001 appropriations act and $19.5 million in emergency funding.

Business process reengineering involves teams of Service Center employees reviewing their agencies' business practices and determining how these practices can

be streamlined or improved to provide better service. Currently, there are about 20 active projects in various stages of development focusing on core business areas such as lending, managing risk, conservation and environment, community development and outreach, and administration. Each of these projects is led and funded by one of the Service Center agencies.

Change management and program management refers to the overall coordination of SCMI activities carried out by the National Food and Agriculture Council (NFAC) staff. It supports customer service training, communications activities and special projects. Funding is contributed by the Agencies and managed by the NFAC staff.

The Integrated Technology funding area provides for the IT infrastructure needed to modernize Service Center program delivery operations. The Information Technology Working Group (ITWG) established by the USDA CIO manages this effort and funding. This category is further broken down into the CCE Hardware/Software component and the Telecom/LAN/WAN/Voice component as follows:

—*Common Computing Environment (CCE).*—The CCE is providing Service Centers with common and updated information systems by acquiring and deploying the servers, workstations, printers, software, and other tools necessary to maximize program and customer service, as well as other administrative efficiencies. Improvements include employee access to email, the Internet, and software productivity tools (e.g., word processing) that will save both employee and customer time. CCE also provides the technical infrastructure necessary for the use of Geographical Information Systems (GIS) in the Service Centers. A priority for fiscal year 2002 is the acquisition of application servers to support reengineered business processes and geographic information systems.

—*Telecom/LAN/WAN/Voice.*—The Service Center agencies' existing telecommunications capacity, or bandwidth must keep pace with the growing customer, partner, business, and legislative demands for electronic access. This project will enable the Agencies to improve network capacity and performance in support of customer demands and the requirements of legislative mandates.

Base data acquisition funds will allow us to continue the development of Geographic Information Systems (GIS) data layers. GIS will provide Service Center agencies with the ability to improve customer service in many ways. For example, determinations of field measurements, classifications and uses will be more accurate and timely. Base data funding is managed by each Agency. Coordination occurs through an interagency GIS team that also coordinates with other USDA agencies and external partners. While we have made significant progress, we will need your continued support over the next few years to complete key data layers and implement our reengineered processes. Fiscal year 2002 funding will maintain the current level of NRCS base data acquisition, but will accelerate the FSA Common Land Unit digitizing that is a key data layer needed by all three agencies.

Question. What kinds of technical refreshments are planned over the next several years for the thousands of high-end desk-top computers, notebooks, workstations and peripherals already purchased and deployed and how much will it cost?

Answer. USDA recognizes the need to regularly refresh technology components as they age and has included that concept in long range plans. We will be determining our fiscal year 2003 needs for technology refreshment during the budget process this summer. The initial priorities will be to replace workstations purchased early in the CCE implementation.

Question. What is the current status and estimated completion date associated with implementing each of the major projects identified in USDA's December 2000 Service Center IT Modernization Plan?

Answer. An integrated project plan has been developed for each of the nine projects Individual tasks needed to complete this projects are built around the overall milestones laid out for the various components of the Common Computing Environment (CCE). Specific information is provided for the record.

[The information follows.]

Fiscal year 2001

March 31, 2001—Deploy AS 400 servers to FSA to ensure connectivity to legacy systems and provide a basis for migrating program applications. STATUS: Completed.

April 30, 2001 to September 30, 2001—Pilot test telecommunications alternatives and develop Internet plan to upgrade capacity to support e-Business and agency web applications. STATUS: Underway, pilot will continue into the fall of 2001, plan will be complete in September 2001.

April 30, 2001 to September 30, 2001—Conduct comprehensive information and systems security planning and analysis. STATUS: Underway, on schedule.

May 2001 to September 2001—Provide necessary systems and end-user training to support fiscal year 2001 initiatives. STATUS: On schedule.

June 30, 2001 to September 30, 2001—Acquire and deploy remaining workstations. STATUS: On schedule, deployment may continue into October.

June 30, 2001 to September 30, 2001—Support targeted implementation of selected technologies (GPS, digital cameras, etc.) STATUS: On schedule, team finalizing requirements.

June 30, 2001 to September 30, 2001—Acquire GIS enterprise license. STATUS: On schedule, procurement process initiated.

July 31, 2001 to October 31, 2000—Deploy Electronic Access Initiative investments and fund a second round of investments to provide a secure web environment to support e-Government STATUS: On schedule.

October 2000 to November 2001—Acquire and deploy shared network servers in all offices to enable enterprise-wide information sharing, common email, and remote management of workstations STATUS: Pilot installation completed and operational. Anticipate meeting end dates.

Fiscal year 2002

October 1, 2001 to September 30, 2002—Acquire and deploy application/GIS hardware and software nationwide; deploy enterprise-wide GIS software.

October 1, 2001 to September 30, 2002—Provide comprehensive end-user training to support the fiscal year 2002 initiatives listed above.

October 1, 2001 to September 30, 2002—Make the capital investments needed to upgrade telecommunications to support Internet and web applications.

Question. Does USDA still plan to have the SCMI completed and fully operational in 2002? If not, when will it be completed and how much will it cost in total to complete it?

Answer. The basic CCE infrastructure will be in place by the end of fiscal year 2002 with requested funding. Once the basic infrastructure is in place, additional investments will be considered to maintain the infrastructure and provide supporting devices that will enhance the capability and efficiency of the SCMI.

Question. The December 2000 plan also notes improved productivity at Service Centers by virtue of deploying a set of common tools such as e-mail, office automation software, secure Internet access and sharing, telecommunications, and business applications. Are USDA service centers' employees presently using these common tools? If not when will service center employees be able to use each of these tools?

Answer. According to OCIO and Service Center agency representatives, the Service Center agencies are now using shared telephone systems, data connections, internet access, common workstation software such as word processing and spread sheet and other applications. They are also using common GIS software, common web tools and equipment and common data definitions, data warehouse tools, administrative software and other tools. A common customer information management application is nearing completion, as are other shareable business applications. The employees are also supported by a common Help Desk system. With the deployment of the network servers by the end of fiscal year 2002, the employees will be on the same e-mail and messaging system and share new and sophisticated security tools.

Question. USDA's budget says that the Department is in the final stages of determining the cost effectiveness of placing an application server in every location or clustering them in fewer locations. When will USDA complete this analysis and what potential cost savings exist should the Department consolidate and employ more centralized server operations using larger capacity servers wherever possible? Did USDA perform a similar study before buying network servers for every location and, if not, why?

Answer. According to OCIO and Service Center agency representatives, the Common Computing Environment Applications Architecture that is scheduled for completion by the end of this year will address the question of centralizing or distributing application server operations. Potential cost savings have not been determined, but will be defined when this study is completed.

I have also been informed that a similar analysis was completed prior to the acquisition of the network servers. The analysis determined that the use of the current telecommunications facilities would have resulted in a delay of over 20 minutes for an employee requesting a typical customer file from a remote server. The cost of increased bandwidth telecommunications service was compared to placing servers at individual offices in the study, and it was determined that increased telecommunications was much more than the purchase of individual servers. An additional consideration was the continued ability to service customers even if the network connection became inoperable.

Question. Are the Service Center IT agencies using existing USDA contract vehicles or their own separate contracts to acquire the same or similar technologies and if so what's the rationale and cost implications for doing so? Has the CIO's office reviewed and approved using separate contract vehicles?

Answer. According to the Chief Information Officer, whenever possible, USDA Service Center agencies use existing USDA or other Federal Government contract vehicles to acquire goods and services. As of this date, existing contracts have been used for all CCE purchases. We expect to continue that approach unless there is a special need that cannot be met with an existing contract. The USDA CIO reviews and approves all contract purchases.

Question. Since 1995, USDA has had various efforts underway to reengineer business processes and reform service delivery in county offices across the U.S. Which business processes have USDA successfully reengineered for each of the farm service agencies? What efficiencies, savings, or benefits to customers have been gained as a result of each reengineered business process? When will USDA complete reengineering the remaining ones?

Answer. I will have information on past reengineering efforts provided for the record. We will continue to build on these efforts through IT innovation and the implementation of e-Government initiatives.

[The information follows:]

The USDA Service Center agencies have made significant progress in business process reengineering (BPR). The agencies initial BPR projects documented the requirements for the current round of CCE equipment that is being deployed. These projects include the GIS based Customer Service, Wetland and Easement Toolkits that automate conservation planning and wetlands and environmental assessments. The Service Center Information Management (SCIMS) and Land Use projects, which provide the foundation for the agencies to manage customer and land records, are nearing completion. SCIMS will enable FSA, NRCS, RD and the Conservation Districts to fully share information and coordinate to improve service to customers. The agencies have developed and continue to evolve a common set of administrative processes including the Combined Administrative Management System (CAMS) which initially automates shared human resources management functions, the Office Information Profile (OIP) which provides information on offices, and common directives. OIP and CAMS are currently being integrated. These systems provide foundations on which the agencies will build.

Business process reengineering is an ongoing process, and work continues on a number of other projects. Following are two examples.

—Rural Development has made significant progress in reengineering and deploying applications such as the Guaranteed Loan and Multi-family Housing systems. It has also made significant progress in developing a common data warehousing systems that can help associate program data with demographic information.

—The Service Center agencies and their partners have developed an agreed upon set of data standards and definitions that enable the sharing of data. The agencies are developing a Resource Data Gateway for the creation and distribution of GIS data to the Service Centers and customers.

Through the Electronic Access Initiative, the Service Center agencies are working together to provide the infrastructure needed to enable customers to do business with the Department electronically and are planning to bring more services the Internet. These plans represent the next phase of agency business process reengineering. Customer benefits and cost savings are beginning to be realized. For example, an NRCS soil conservationist reports that more conservation filter strip designs can be offered to customers because GIS has helped reduce the time it takes to develop them.

FREEDOM TO E-FILE ACT

Question. When the Freedom to E-File Act is fully implemented, how will farm services be improved and what specific business processes will be automated as a result? To what extent will farmers and others covered under the act still have to visit a service center to participate in USDA's programs?

Answer. Once the Act is fully implemented it is envisioned that the Service Center agencies and Risk Management Agency will provide services using both electronic and traditional methods to meet the varying needs of its customers. Some customers will conduct business solely via the Internet while others will continue to conduct business in the more traditional paper-based fashion or through a combination of electronic and traditional. The choice of the number of visits the customer makes to the office site will ultimately rest with the customer. Eventually,

virtually no trips to the USDA service centers will be required to conduct transactions. There will still be a need for some customer visits in June, 2002.

According to OCIO, most of the service center agencies' business processes are already automated in some manner. However, the migration to on-line delivery of information and services will impact virtually every one of the agencies' processes where interaction with the customer is required. These processes will have to be revamped in a manner that reasonably ensures customer understanding and successful use in the non-service center environment.

Question. What steps are being taken by the Department to ensure that USDA meets the Freedom to E-File Act legislative deadlines of December 1, 2001 and June 20, 2002 for providing farmers and others covered under the act the ability to file electronically for services with the Department? What has been accomplished so far?

Answer. The Department's e-Business Executive and the OCIO are working with Service Center Agency program and IT leaders to develop a comprehensive e-Government strategy and project plan within an overall framework which addresses common issues such as infrastructure, policies, training, and agency-specific program delivery requirements. The major accomplishment so far is that FSA, NRCS, and RD deployed a common Internet web site to meet the first set of requirements of the Freedom to E-File Act, which enables agricultural producers and RD customers to access and download forms used to participate in the agencies' respective programs and services. Additionally, RMA developed its implementation plan and sent guidance to private insurance providers on what they need to do to conduct transactions electronically by December 2001.

Question. GAO made a series of recommendations to help USDA better ensure success in meeting the provisions of the Freedom to E-File Act. Where does the department stand on implementing each GAO recommendation?

Answer. USDA agrees with the recommendations of the GAO report, that both the development of a comprehensive plan and the assignment of a senior-level official with overall responsibility, authority, and accountability for the effort, is necessary to ensure the Service Center agencies, together with the RMA, meet the tight deadlines of the Act.

We have a Senior Executive, as well as an executive working group coordinating efforts in the Department. We received OMB approval of resubmitted RD forms in March and are in the process of completing a comprehensive plan to meet the requirements of the Freedom to E-File Act.

ELECTRONIC SERVICE, E-GOV, AND GOVERNMENT PAPERWORK ELIMINATION ACT (GPEA)

Question. The Internet and other new technologies have made new demands on government agencies to greatly expand their ability to provide electronic services to the public. Where does USDA stand in developing and implementing an overall e-Gov strategy to help guide its e-Gov transition? What major obstacles are there to providing these kinds of electronic services at USDA and what efforts are underway to address them?

Answer. The Department is working to develop a framework for planning and implementing e-Government initiatives. According to the Chief Information Officer, this e-Government framework will serve as a blueprint of policies and procedures that articulates a defined vision and strategy to ensure a common understanding regarding e-Government and will give agencies knowledge with which to make good business decisions.

The major obstacles identified by OCIO and agencies include the resource-intensiveness of efforts, the need to organize activities across the Department, and the difficulty of authenticating the transmission of sensitive data. A readiness assessment of the agencies and customer groups relative to their capability to engage in e-Government will be conducted. We expect that more specific obstacles and challenges will be identified in this assessment relating to organizational and technical readiness to implement e-Government initiatives. We will also be evaluating the funding requirements and the need to scale existing telecommunications capabilities.

Question. The Government Paperwork Elimination Act (GPEA) specifically requires each agency, including USDA, to implement procedures necessary to offer secure electronic services for all its components and offices by October 2003. What progress has USDA made to implement GPEA?

Answer. USDA agencies developed initial plans for complying with GPEA in October 2000. These plans identified business processes deemed important to automate in accordance with OMB guidance. OCIO has been conducting customer service visits to each of the Department's agencies to understand the type of information, guidance, and support the agencies need to ensure good planning that leads to successful

implementation. OCIO is currently working with agency representatives to prepare a comprehensive e-Government framework of policies and procedures for the department. Efforts of agencies showing significant progress, including the Foreign Agricultural Service, Animal Plant and Health Inspection Service, and E-File Act agencies, will serve as a model for the rest of the Department in developing the framework and meeting GPEA requirements.

Question. Obviously, building and supporting a secure and private communications network infrastructure and electronic records management process will be of the utmost importance. What specific steps is the department taking to provide these very basic kinds of assurances to USDA customers and the public?

Answer. The strengthening of computer security and protection of the privacy of information in the Department's computer systems is a top priority. USDA agencies have been actively engaged in security planning at both the department and agency levels. The Department will continue to address security needs and privacy issues through close collaboration between the Secretary, OCIO, and individual USDA agencies. I will have the Chief Information Officer provide more detailed information for the record.

[The information follows:]

Long-term objectives are concentrated around building the compatible architectures of security, IT, and telecommunications which are flexible and capable of meeting both the service level requirements and the security requirements. With contractor assistance we will establish the telecommunications and security baselines, establish our technical options, and develop a security selection matrix and a security architecture maintenance process.

USDA has also taken important steps to implement its comprehensive action plan to strengthen Cyber Security. In fiscal year 2001, the Department has expanded the Cyber Security Program Office and begun implementation of key programs under its comprehensive security framework. The Associate CIO is working with the CIO, who also serves as the Department's Senior Official for Privacy Policy, and individual agencies to assure the privacy of customer and other confidential data maintained in USDA information systems.

Short-term objectives are concentrated around securing the outer perimeter of the Departments telecommunications backbone network and addressing immediate security needs. Specific steps include:

—Improving current delivery of services over the Internet. This is being accomplished by deploying additional firewalls, filtering in routers, and intrusion detection systems across the backbone network that together provide a much-improved level of network security.

—Improving network oversight. OCIO has purchased and installed scanning and penetration testing tools which are used to provide constant network monitoring.

—Developing specific security architecture components to meet short term needs which will be compatible with our long-term architecture goals.

In addition, the OCIO has been engaged with the USDA agencies to raise their awareness of the need to address electronic recordkeeping and to include electronic records requirements into both current and future systems design. Agencies have also been provided information on the migration of data and information from legacy to new systems and that the associated costs must be planned for as part of the system development life cycle costs. The need for long-term retention of records, such as loans that can span in excess of 40 years, is under discussion. Of concern is the need to plan for the verification, validation and authenticity, and the storage media as records as migrated from one systems to another.

USDA also has Departmental policy on electronic recordkeeping requirements. The USDA Department Records Officer has been actively engaged in external electronic recordkeeping groups to ensure USDA's policies address the current and future environments. While progress has been made, as USDA moves toward a broader electronic environment, where paper records are no longer the record copy, much more needs to be done. To further address this need, OCIO recently established an e-Government Program staff to further address electronic records requirements. OCIO will be forming a team of agency business experts, information technologists, and records officers to address electronic recordkeeping requirements in the Internet environment. To this end, USDA is exploring the need for a corporate information infrastructure and taxonomy to address common records disposition requirements. This corporate approach will enable USDA to address electronic recordkeeping issues more quickly and provide a common approach for USDA employees and a common message to USDA's customers regarding USDA's commitment to best recordkeeping requirements in the electronic environment.

INFORMATION TECHNOLOGY (IT) SECURITY

Question. Were security plans developed for all new IT investments approved for fiscal year 2002? If so, how and by whom were these plans evaluated, reviewed, and approved?

Answer. According to the Chief Information Officer, security requirements for USDA's Capital Planning and Investment Control Process were recently enhanced. More rigorous security requirements have been included to ensure that plans for all new systems identify specific security controls, costs, and schedules. This will ensure that security requirements are adequately addressed during the review of USDA information technology investments and that the Department will have a baseline from which to monitor security progress.

Both the Office of the Chief Information Officer (OCIO) and the Office of Inspector General (OIG) have concluded their reviews of this issue. OIG identified several weaknesses and NASS has already corrected most of them and aggressively implemented plans to correct the rest. In addition, security reviews have been concluded at the Department's major centers. I will have OCIO provide more specific information on these security issues.

According to OCIO, this year agency security plans were required to be signed by the respective agency head before submission to OCIO, thereby ensuring senior management scrutiny. All plans are initially assigned to a staff security specialist for review, followed by review by the Associate CIO for Cyber Security. If necessary, the submitting agency will be contacted for amplification or clarification prior to approval.

Question. USDA has been criticized in the past for having significant computer security weaknesses and in January 2001, GAO designated computer security at USDA as a major performance and accountability challenge. What management priority has the Department assigned computer security and where does USDA stand on implementing each of GAO's and the USDA OIG's recommendations?

Answer. The protection of the security and privacy of USDA information resources is a top management priority. The Department developed a comprehensive action plan to strengthen Cyber Security and has taken important steps to implement the plan. The Department's Associate CIO for Cyber Security is leading a corporate approach to protecting USDA information resources and is working with the CIO and individual agencies to assure the privacy of customer and other confidential data maintained in USDA information systems. The Department will continue to address security needs and privacy issues through close collaboration between my office, OCIO, and individual USDA agencies. I will have the Chief Information Officer provide more detailed information for the record.

[The information follows:]

USDA's "Action Plan to Strengthen USDA Information Security" provides a sound strategy, based on the best practices of leading organizations, for identifying computer security vulnerabilities and implementing mitigation procedures and mechanisms. Both the GAO and USDA's OIG have favorably reviewed this plan and have recommended implementation. Progress OCIO has made to implement its cyber security plan and address GAO and OIG recommendations include:

—The centralized management focus of the cyber security program will be strengthened and expanded to provide additional oversight and hands-on problem solving. This central management strategy will position USDA to be in accordance with oversight guidance, the requirements of legislative mandates, and the strategies practiced by many of the most successful government and private security organizations. Recent additions to the Cyber Security Program Office staff provide the Department with the expertise and experience necessary to improve USDA's cyber security posture.

—With funds provided in fiscal year 2001 to implement a Department-wide Risk Management program, the Cyber Security Program Office has contracted to develop risk assessment checklists, issue guidance, conduct training, and work directly with OCIO and the agencies in conducting risk assessments. Agencies will ultimately be responsible for conducting and funding agency risk assessments and providing the results of those risk assessments to the central Cyber Security Program Office. Risk assessments and subsequent data analyses will form the basis for the decision-making process required to protect USDA's critical cyber infrastructure.

—The OCIO Cyber Security Program project plan also calls for a major effort in fiscal year 2001 to refine the requirements for security architecture and begin its design and implementation. With these funds, contract expertise will be employed to assist with the refining of USDA security requirements, establishment on the Department's security baseline and the development of a security archi-

tecture methodology. Design and implementation of the security architecture will follow.

With funds specifically designated for these programs, OCIO's Cyber Security Program Office will continue to build on its work in the areas of risk management and security architecture development. Specific vulnerabilities and weaknesses cited in the most recent OIG review focuses on operational security controls and procedures. This review cited a large number of security weaknesses, some of which are highly sensitive. Most of the items identified by OIG have been corrected or mitigated.

Question. How much will be spent in fiscal year 2002 across USDA on information security management for staff, software, and other related expenses? [Please break out the number of information security management staff in and total security dollars spent at each agency and office.]

Answer. In large part, the cost for security of USDA information technology systems is not accounted for separately from overall capital investment costs. This is consistent with past Office of Management and Budget (OMB) direction. OCIO is currently working with agencies to develop an accurate estimation of fiscal year 2002 security expenditures. We will forward that information when it is available.

Question. What has USDA done to identify, track, and correct security weaknesses and vulnerabilities that exist throughout the Department? How many such instances have been reported since the beginning of fiscal year 2000, by each fiscal year, and by mission area/agency/staff office?

Answer. The Department is working to correct vulnerabilities identified by GAO and OIG as well as by the Cyber Security Program Office. Vulnerabilities are identified through audits, security reviews, and the scanning of our information systems. The CIO has informed me that while we do not have information in the format you requested, we do have information on vulnerabilities and efforts are underway to improve the way risks are tracked and managed. I will have that information provided for the record.

[The information follows:]

The OIG just completed an assessment of 1,200 of USDA's devices and found 3,300 high and medium security vulnerabilities within seven agencies. Their evaluation concluded all agencies tested had poor controls over physical and logical access to sensitive data and systems. The Cyber Security Program Office is implementing comprehensive programs to manage risks and work with agencies to correct vulnerabilities.

In fiscal year 2001, the Cyber Security Program began onsite reviews as part of the new Risk Management Program. Recognizing that comprehensive and thorough risk assessments of USDA's information assets must become an integral part of IT management within the Department, the OCIO Cyber Security Program began conducting onsite reviews at critical USDA facilities. Thus far, comprehensive assessments have included the National Finance Center and the National Information Technology Center. Vulnerabilities identified thus far, when added to those identified by GAO and OIG, total approximately 3,800.

The Department tracks and is working to correct operational security weaknesses identified by OIG and the Cyber Security Program staff. Vulnerabilities are identified through audits, security reviews, network scans, and intrusion detection monitors. Specific vulnerabilities and weaknesses cited in the most recent OIG review focuses on operational security controls and procedures. This review cited a large number of security weaknesses, some of which are highly sensitive. Most of the items identified by OIG have been corrected or mitigated. If the Committee desires, I will have the OCIO Cyber Security staff provide a briefing on the state of USDA computer system vulnerabilities.

Also in fiscal year 2001, the Cyber Security Program initiated its development of risk assessment tools as part of its Risk Management Program. The Cyber Security Program Office has made significant progress in developing the methodologies and tools required to perform effective risk assessments of the Department's information assets. Contract support has been obtained to develop risk assessment tools and to work directly with USDA agencies in conducting actual risk assessments. These risk assessment tools will be used to assess existing mission critical systems as well as future IT acquisitions. Contracts call for all risk assessment tools to be field-tested and independently appraised.

Funding received in fiscal year 2001 for staffing the OCIO Cyber Security Program has allowed USDA to add security specialists with the experience and expertise needed to train and counsel agency security staffs. Over the past year, experts in the fields of configuration management, mainframe and desktop security, physical security, risk management, network security, and other disciplines have been hired to both oversee the Department's Cyber Security Program and assist agency security specialists meet their respective security responsibilities.

Question. Have all USDA computer system and networks that handle highly sensitive data, including NASS information, been tested for vulnerabilities and risks? If so, what general types of problems were identified and what types of steps are being taken to address them?

Answer. USDA's Computer Security Program is following a risk-based facility review program to fully assess USDA's critical infrastructure. Computer security measures have been evaluated at our major data centers and NASS. This strategy involves on-site reviews of major USDA information management facilities based on their relative criticality to the organization. According to the Associate CIO for Cyber Security, facilities of the highest priority will be reviewed twice each year, and less critical facilities will be reviewed once each year. At the same time, the Cyber Security Program Office is implementing essential security programs and projects that include security risk management, a security architecture, configuration management, physical security management, intrusion detection and prevention, system certification, disaster recovery, and security standards and enterprise-side controls. I will have the CIO provide more specific information.

[The information follows:]

Vulnerabilities identified by OCIO, GAO and OIG generally fall into the following categories:

—Corrective actions for known vulnerabilities are not being implemented.
—Inadequate skills within USDA's security program to implement and maintain security devices and procedures.
—Low level of management attention to security requirements.
—Inadequate resources to acquire, implement and manage necessary security controls.
—Pressures arising from legislation and customer demand to move to new technologies that are inherently riskier without proper attention to security.
—Inadequate network and system access controls.
—Transmission of sensitive information in unencrypted formats.

To support current and future delivery of services over the Internet, USDA must develop a comprehensive electronic security architecture. Activities to improve the USDA security architecture thus far include deploying: 1) additional firewalls, 2) filtering in routers, and 3) intrusion detection systems that together provide a much-improved level of network security.

Funding was received in OCIO's fiscal year 2001 budget specific to the development of a USDA Security Architecture; a contract effort has begun to assist the Cyber Security Program staff with security architecture design. Additionally, the Department has already established firewalls across its telecommunications backbone network, procured system monitoring and evaluations tools, and is negotiating for a Department-wide contract to provide intrusion detection mechanisms. These devices will allow OCIO staff to participate in active network monitoring. Collectively, these security controls provide a more strict and coordinated enforcement of network access and use.

The OCIO has initiated a backbone security program to address a broad range of security issues. This program is designed to establish security standards and policies, identify and install security mechanism and tools and engage agencies in the application of uniform procedures that, collectively, will provide a rigorous set of standard security controls to ensure the integrity, availability and confidentiality of information transmitted across the Department's network. Specific activities planned or underway include:

—*Encryption.*—The objective of this initiative is to identify a set of common encryption requirements that will ensure the safety of data transmitted across the USDA telecommunications backbone network. These requirements will address information asset classification, assessment of vulnerability, physical and logical controls, and the tools and procedures necessary to provide a rigorous process designed to eliminate the risk of fraud and misuse of sensitive information.
—*Network Security.*—The USDA Network Security program is designed to implement security tools, procedures and policies designed to deter unauthorized and potentially damaging access to the Department's backbone telecommunications network. These mechanisms will provide both preventative and detective controls through a consistent monitoring and filtering system that will ensure the safety and reliability of information as it traverses the network. Additionally, the Department has requested additional support from law enforcement in investigating unauthorized access to our computer systems.

OCIO has already deployed firewalls, filtering in its routers, and intrusion detection systems that together provide a much-improved level of network security. For the USDA Telecommunications Backbone Network, firewalls have now been in-

stalled at every Internet access point. Scanning procedures and tools are in place and reports are produced daily. Three separate ISS scan tools and other security monitoring tools have been purchased and installed at USDA's headquarters complex. These devices will allow OCIO staff to participate in active network monitoring. Collectively, these security controls will provide a more strict and coordinated enforcement of network access and use.

—*Electronic Access Security Design.*—The objective of the Electronic Access Security Design initiative is to engage contractors to work with security and network personnel in USDA county-based agencies (RD, FSA, and NRCS) and the OCIO to develop and recommend a comprehensive information security program for Internet/Intranet/Extranet services (Web Farms) and to standardize security-related efforts. Outcomes expected from this effort include 1) a generalized logical architecture; 2) a physical implementation of the logical architecture including integration testing in a laboratory environment, and: 3) a generalized support infrastructure including staffing, policies, procedures, and management processes.

Agreement has now been reached on a USDA Web Farm architecture. At a minimum, all internet-based implementations must agree with the standards established for USDA firewall settings. Virtual Private Network's (VPN's) established to transmit sensitive data will follow the methodology already established within USDA for VPN tunneling. This will provide for secure data designations ranging from anonymous to "non-repudiation". Web Farm transmissions will be built on a standardized TCP/IP protocol stack and will require the segregation of public service traffic and USDA internal services. USDA services will be accessed only through authorized paths.

In addition to the logical controls and security personnel requirements, OCIO is currently in the process of establishing physical security standards for all Web Farm development. These standards, developed in conjunction with USDA's physical security staff, will set forth the minimum physical security requirements that must be met prior to implementation. The physical security requirements will be finalized by the end of fiscal year 2001.

Question. How is the Department overseeing the expanded use of electronic technologies to ensure there are adequate levels of security and privacy over Department-wide information resources?

Answer. Our Chief Information Officer is working closely with the Department's IT and business leaders to ensure adequate security and privacy as we expand the use of technology in conducting business. USDA must ensure the privacy of customer information, customer transactions, and other sensitive data it maintains. OCIO is currently in the process of updating functional requirements, position descriptions, and skill-set requirements for personnel who will be assigned responsibility for managing privacy issues. Comprehensive security policies and programs are also being implemented at the Department-level to ensure a corporate approach to mitigating security weaknesses and protecting customer privacy. Right now a risk management program and security architecture are under development and more programs are planned in implementing the Department's comprehensive security action plan.

According to the CIO, to ensure adequate security in meeting the mandates of the Freedom to E-File Act, cyber security program staff members have worked closely with Service Center agencies' personnel to develop and begin implementing a comprehensive Web Farm architecture with adequate security controls. This architecture utilizes common hardware, software, configurations, security, policies and procedures, and staffing to ensure an orderly transition to delivering services over the Internet.

USDA'S FOUNDATION FINANCIAL MANAGEMENT SYSTEMS (FFIS)

Question. When does USDA anticipate fully implementing FFIS and how much will the system cost to develop and operate once its completed?

Answer. FFIS will be fully implemented in all USDA agencies on October 1, 2002. An assessment is underway to determine the full operational costs once all seventeen USDA agencies/organizations are implemented and in full operation.

Question. How much does USDA plan to spend in fiscal year 2002 to further implement its FFIS and related improvements?

Answer. The USDA fiscal year 2002 FFIS implementation budget is $17,468,700. Agencies have additional costs as they make improvements to their systems, which feed data to FFIS.

Question. How many agencies are currently using FFIS to input their financial information, and when does the Department expect all agencies/offices to be using FFIS?

Answer. There are currently eight USDA agencies using FFIS. All USDA agencies are expected to be using FFIS by October 1, 2002.

INFORMATION TECHNOLOGY (IT) CONTRACTING

Question. How much does USDA expect to spend in fiscal year 2002 for IT contractor support services by mission area/agency/office, and how much was spent for such services in fiscal year 2000/2001?

Answer. The Chief Information Officer provided the following table, which shows the fiscal year 2000, and estimated 2001 and 2002 funding for USDA IT contractor support services by agency:

USDA SUPPORT SERVICES COSTS BY AGENCY

[Millions of Dollars]

Agency	Fiscal year 2000	Fiscal year 2001	Fiscal year 2002
Agricultural Marketing Service	$4.0	$4.8	$1.7
Agricultural Research Service	3.8	4.2	4.1
Animal and Plant Health Inspection Service	3.7	3.5	3.6
Coop State Research, Education, & Extension	2.1	3.0	3.4
Departmental Administration	4.9	7.3	13.9
Economic Research Service	0.4	0.2	0.2
Farm Service Agency	49.7	37.8	53.8
Food and Nutrition Service	10.5	9.9	12.0
Food Safety and Inspection Service	5.1	6.1	6.1
Foreign Agricultural Service	7.2	10.0	10.1
Forest Service	59.0	55.2	62.8
Grain Inspection, Packers & Stockyards Admin	0.1	0.1	0.1
National Agricultural Statistics Service	0.6	1.2	1.9
National Appeals Division	.....	.....	.....
Natural Resources Conservation Service	12.8	8.7	7.2
Office of Budget and Program Analysis	.....	.....	0.6
Office of Communications	0.0	0.0	0.0
Office of General Counsel	.....	.....	.....
Office of Inspector General	0.1	0.1	0.2
Office of the Chief Economist	.....	0.1	0.1
Office of the Chief Financial Officer	31.7	28.9	19.2
Office of the Chief Information Officer	26.4	32.6	29.4
Risk Management Agency	10.8	7.1	15.5
Rural Development	13.7	34.4	25.4
U.S. Department of Agriculture	246.6	255.2	271.3

Question. To what extent has USDA analyzed and assessed opportunities to outsource additional IT support services over the next several years? What specific areas would such outsourcing cover and what are the expected costs/benefits?

Answer. USDA has conducted its fiscal year 2000 FAIR Act Inventory as required and identified IT jobs that could potentially be outsourced. The OCIO and individual agencies are preparing to conduct cost comparisons for jobs in the Inventory. Once these studies are conducted, we will be able to identify costs and benefits of outsourcing these IT positions.

CHIEF INFORMATION OFFICER (CIO)

Question. What has the CIO identified as its major/key performance goals for fiscal year 2002?

Answer. I will have the Chief Information Officer provide that information for the record.

[The information follows:]

OCIO's performance goals for fiscal year 2001 and fiscal year 2002 are as follows:

Goal 1: Enhance Customer Service and Operational Support.

Performance Goals:

—Support the USDA Enterprise Architecture.

—Develop new services and increase OCIO customer base for existing services.

—Improve customer service quality.

—Develop and implement USDA Universal Telecommunication Network.
—Improve performance of existing network through enhanced network management capabilities.

Goal 2: Improve and Enhance Information Technology Capital Investments Process and The Skills of the Information Technology Workforce.

Performance Goals:
—Enhance the Capital Planning and Investment Control Process by increasing use of USDA's I–TIPS.
—Increase the number of corporate projects and information systems.
—Complete USDA IT skills assessment.
—Develop an IT Workforce plan.

Goal 3: Effective Stewardship through Enterprise Program Management Performance Goals:
—Develop and implement a common computing environment infrastructure for USDA's Service Centers which includes the whole package of hardware, software, security, websites, telecommunications and databases, but excludes the development of applications.
—Transformation to a fully integrated e-government environment.

Goal 4: Develop, Implement and Maintain a Secure and Confident IT Environment while Protecting Privacy.

Performance Goals:
—Provide policy, guidance and training to strengthen USDA information security to all USDA agencies.
—Evaluate all mission critical information systems and identify all vulnerabilities.
—Develop mitigation plans for vulnerabilities discovered through formal threat assessments.
—Develop policies and guidelines that provide agencies with security standards and repeatable procedures that ensure information assets remain safe and available.

Question. What are the total costs in fiscal year 2001 and fiscal year 2002 to operate the National Information Technology Center located in Ft. Collins, Colorado? (identify and include all categories of costs) What is the rationale and justification for maintaining the separate Ft Collins office and has USDA performed any cost/benefit studies of maintaining this separate office rather than performing its functions out of the CIO's headquarters office in Washington D.C.?

Answer. The NITC program in Fort Collins (NITC–FC) is an organizational division of NITC but is a separately funded activity within USDA's Working Capital Fund. NITC–FC obtains all of its funding through memorandums of understanding and reimbursable agreements with customer agencies that choose to use NITC–FC's services. It receives no appropriated funds. The Department maintains the Ft. Collins, Colorado, location because that is where many of its customers and the projects it supports are located. I will have the CIO provide more information for the record.

[The information follows:]

The budgeted costs for NITC–FC for fiscal years 2001 and 2002 are as follows:

Cost Category	Fiscal year 2001	Fiscal year 2002
Federal Personnel Costs	$3,792,000	$3,932,000
Contract Services	2,499,000	2,570,000
Rents, Communications, Utilities	348,000	356,000
Equipment and Depreciation	154,000	267,000
Travel and Transportation	145,000	149,000
Software and Supplies	100,000	102,000
Total	7,038,000	7,376,000

No formal cost benefit studies have been conducted since a data center consolidation study was performed by Booz, Allen and Hamilton, Inc., in 1985. This study provided the basis for the current NITC organizational structure.

USDA continues to maintain this development staff in Fort Collins, Colorado because many of the customers and major projects supported by this staff are also located in Fort Collins, including the Forest Service, the Natural Resources Conservation Service, the Animal and Plant Health Inspection Service and others. This allows NITC direct access to customers and helps to reduce costs including travel and long-distance communications. NITC's high-quality, low-cost information technology (IT) services have resulted in many new projects for the Fort Collins division over the last decade. Many of the applications that the NITC Fort Collins division sup-

ports are national applications that are used by all USDA agencies and other Federal agencies, such as the General Services Administration's FTS 2001 applications.

The overall cost of living is lower in Fort Collins than the Washington, D.C. area. This allows NITC to recruit and retain both Federal and contractor positions at a much lower cost to customers. Fort Collins is part of the Rest of the U.S. (RUS) locality pay structure and has lower salary and benefit costs than the D.C. area. Contractor support costs are also lower than they would be in D.C., which saves customers additional money.

TELECOMMUNICATIONS MANAGEMENT

Question. Several years ago, the Department said that it spent more than $200 million annually for telecommunications services. How much does USDA currently spend on telecommunications each year? (Please break these costs out by major category and by mission area, agency, and office.)

Answer. I will have the CIO provide that information.

[The information follows:]

The following amounts consist of local and long distance services (not including international) for voice, data and video telecommunications (other than radio) developed in January 2000.

USDA Telecommunication Costs

[Millions of Dollars]

Mission Area/Agency	*Fiscal year 2000*
Foreign Agricultural Service:	$2.326
Farm Service Agency	58.024
Risk Management Agency	6.621
Food, Nutrition & Consumer Services: Food & Nutrition Services	1.069
Food Safety: Food Safety & Inspection Service	0.650
Natural Resources & Environment:	
Forest Service	48.900
Natural Resources Conservation Service	24.170
Research, Education & Economics:	
Agricultural Research Service	7.369
Coop State Res, Edu, & Ext Service	1.378
Economic Research Service	4.348
National Agricultural Statistics Service	2.288
Rural Development: Rural Development	14.713
Marketing & Regulatory Programs:	
Agricultural Marketing Service	3.257
Animal & Plant Health Inspection	11.790
Grain Inspection, Packers & Stockyards Admin	0.829
Departmental Administration: Departmental Administration	0.784
Departmental Staff Offices:	
Office Chief Financial Officer [1]	1.714
Office General Counsel	0.322
Office Inspector General	0.986
Office Communications	0.311
Office Chief Information Officer [1]	15.324
National Appeals Division	0.266
SDA Total	207.439

[1] Numbers reflect total Appropriated and Working Capital Funding. These numbers are not adjusted for collections.

Question. Where does USDA stand with respect to implementing all of GAO's recommendations for improving Department-wide management of telecommunications?

Answer. According to OCIO, USDA has achieved closure on most GAO recommendations concerning Department-wide management of telecommunications. Open recommendations remain in the following two GAO telecommunications audits:

—AIMD–95–203—USDA Telecommunications: Better Management and Network Planning Could Save Millions

—AIMD–98–131—USDA Telecommunications: Strong Leadership Needed to Resolve Management Weaknesses, Achieve Savings

I will have the Chief Information Officer provide the status of these open recommendations for the record.

[The information follows:]

AIMD–95–203.—During fiscal year 2000, three of five open recommendations from AIMD–95–203 were closed. The two open recommendations can be summarized as follows:

—Establish and implement procedures for reviewing telecommunications resources at offices that USDA plans to close or relocate.

—Develop Departmental policy requiring agencies to establish management controls over the acquisition and use of telecommunications resources.

Recommendations and Actions Taken.—These two recommendations require that telecommunications inventory and compliance activities be undertaken. Following guidance provided by GAO, OCIO is working to leverage existing Service Center agency review efforts to address compliance requirements. OCIO is working with USDA agencies through the Telecommunications Mission Area Control Officers to develop an inventory system. Both of these activities are resource intensive, requiring sufficient funding, staffing, and time to complete.

AIMD–98–131. The purpose of this audit was to emphasize recommendations from previous audits:

—AIMD–95–97 USDA Telecommunications: Missed Opportunities to Save Millions

—AIMD–95–203 USDA Telecommunications: Better Management and Network Planning Could Save Millions

—AIMD–96–59 USDA Telecommunications: More Effort Needed to Address Telephone Abuse and Fraud

Recommendations and Actions Taken.—Over the past 18 months, OCIO has been aggressive in taking the steps necessary to obtain closure of two of the audits (AIMD–95–97 and AIMD–96–59). As noted under AIMD 95–203, OCIO has efforts underway to address the inventory and compliance issues needed to close the two remaining open recommendations. Based on feedback from GAO, AIMD–98–131 should be closed when AIMD–95–203 is closed.

YEAR 2000 ROLLOVER

Question. USDA has reported to OMB that it spent almost $200 million to address the Year 2000 problem. What type of accounting controls existed over these funds and what lessons were learned from accounting for these emergency-type funding initiatives at USDA?

Answer. According to the Chief Information Officer, USDA established an accounting management program to monitor the tracking and use of all supplemental emergency funding in the department. This program used an on-line reporting capability, supported by the National Finance Center (NFC), to track financial obligations. Once an agency entered an obligation into the system, the transaction was tracked to completion. The CIO noted that a key lesson learned from accounting for emergency-type funding initiatives for was that having central control of funds is essential to oversight and investments.

Question. We understand that USDA hired a contractor to audit agency Year 2000 expenditures. When was this audit completed and what were the results?

Answer. The audit activity on USDA's Year 2000 expenditures is ongoing and scheduled for completion by May 31, 2001.

UNOBLIGATED BALANCES

Question. Provide actual/estimated fiscal year-end 2000, 2001, and 2002 unobligated balances, by account, with an explanation of amounts in excess of 10 percent of the total funding available at the beginning of the fiscal year.

[The information follows:]

EXPLANATION OF UNOBLIGATED BALANCES IN EXCESS OF 10 PERCENT OF TOTAL FUNDS AVAILABLE

Farm Service Agency

—Agricultural Conservation Program. This program is no longer authorized and USDA cannot obligate additional funds. The objectives of this program were incorporated into the Environmental Quality Incentives Program which is funded by the Commodity Credit Corporation.

—Emergency Conservation Program. Unobligated balances are needed in the event of unforeseen emergencies dealing with cases of severe damage to farmlands and rangelands resulting from natural disasters.

Risk Management Agency

—Federal Crop Insurance Corporation Fund. The estimated unobligated balances are roughly equivalent to the FCIC's outstanding capital stock of $500 million.

Foreign Agricultural Service

—Salaries and Expenses. The unobligated balance includes $4 million for the Cochran Fellowship Program, about $6 million from the Department of State for overseas security enhancements, and about $15 million from the Agency for International Development. The funds will be used to conduct required future activities.

Public Law 480.—More than 85 percent of the fiscal year 2000 unobligated balance represents Title I amounts for the Russia Food Assistance Program that will be obligated prior to the end of fiscal year 2001. The remaining amounts are for Titles II and III.

Rural Development

—Rural Housing Assistance Grants. Of the amount available for carryover, 80 percent of the total is for natural disasters which has had few requests for funding.

—Rural Empowerment Zones/Enterprise Community Grants. There are balances because of a delay in the clearance of the regulations needed to initiate the program for the Round II EZ/EC's.

—Rural Economic Development Grants. The funds for the Rural Economic Development Grants are provided from the interest differential on Rural Utilities Service (RUS) borrowers' cushion of credit accounts. Under the Cushion of Credit Payment Program, RUS borrowers are authorized to make voluntary advance payments on their loans and receive 5 percent interest on those advance payments. These advance payments, called "cushion of credit" payments, are held in the Rural Electrification and Telecommunications Liquidating Account. This account is credited monthly with a sum determined by multiplying the outstanding cushion of credit payments made after October 1, 1987, by the difference between the average weighted interest rate paid on outstanding certificates of beneficial ownership issued by the Fund and the 5 percent rate of interest provided to RUS borrowers on cushion of credit payments. At the end of the fiscal year, the cushion of credit payments in the Rural Electrification and Telecommunications Liquidating Account are transferred to the Rural Economic Development and Grants and used to make grants the next fiscal year.

—National Sheep Industry Improvement Center Revolving Fund. For the fund, $25 million has been appropriated. The funds are authorized to carry out the authorized programs and activities of the Center without fiscal year limitation. Of the $25 million available to date, $14 million was obligated to an intermediary to make direct, indirect, and guaranteed loans. Also, $4.8 million is being used for grants for marketing and promotion of lamb meat. The remaining funds will be used to carry out the intent of the revolving fund.

Natural Resources Conservation Service

—Watershed and Flood Prevention Operations. NRCS does not record an obligation until a Federal contract has been awarded, a project agreement has been executed, a cooperative agreement has been signed by the sponsor, or a long-term contract has been signed by the participant. It often takes a great period of time to accomplish this due to the complexity of the work. Some of the unobligated balances are due to an emergency supplemental that was passed later in the fiscal year.

—Forestry Incentives Program. NRCS does not record an obligation until a forest management plan is developed and approved. It often takes a great period of time to accomplish this due to the complexity of the work.

—Great Plains Conservation Program. This NRCS program is now conducted under the authority of the Environmental Quality Incentives Program. The unobligated balances will be maintained until all existing contracts are modified or expire.

—Colorado River Basin Salinity Program. This NRCS program is now conducted under the authority of the Environmental Quality Incentives Program. The unobligated balances will be maintained until all existing contracts are modified or expire.

—Wildlife Habitat Incentives Program. NRCS does not record an obligation until the wildlife habitat development plan is finalized. It often takes a great period of time to accomplish this due to the complexity of the work.

—Rural Clean Water Program. No needs are anticipated for the remaining unobligated funds because the implementation period for all projects has ended. The final payments have been made and the program will be closed out in 2001.

Agricultural Research Service

—Building and Facilities. Most of the balances in this account are for facilities projects that are awaiting additional appropriations in order to fully fund a complete segment of the project; waiting for completion of design work in order to award construction contracts, or currently in various phases of construction and funds are being obligated as the work progresses.

Cooperative State Research, Education and Extension Service

—Initiative for Future Agriculture and Food Systems. The 2002 Budget provides that 2001 unobligated balances carry over to fund the program in 2002 and postpone spending the new $120 million to be appropriated for 2002 until 2003.

Agricultural Marketing Service

—Marketing Services. The unobligated balances in this account are reimbursed funds collected from fees paid by the agricultural industry customers for cotton and tobacco grading services. A balance is maintained to cover a 3 or 4 month reserve for unforeseen liabilities.

Animal and Plant Health Inspection Service

—Building and Facilities. Most of the balances in the account are for facilities that are in various phases of construction or repair and are being obligated as the work progresses.

Grain Inspection, Packers and Stockyards Administration

—Inspection and Weighing Services. A balance is maintained to cover a 3 or 4 month reserve for unforeseen liabilities.

Fund for Rural America.—The 2002 Budget provides that 2001 unobligated balances carry over to fund the program in 2002 and postpone spending the new $60 million to be appropriated for 2002 until 2003.

UNITED STATES DEPARTMENT OF AGRICULTURE UNOBLIGATED BALANCES BY ACCOUNT: END OF YEAR

[Dollars in millions]

Agency or Item	2002 actual	2001 estimated	2002 estimated
FARM SERVICE AGENCY:			
Salaries and Expenses	13	0	0
Agricultural Credit Insurance Fund Program Account	100	0	0
Conservation Reserve Program	1	0	0
Agricultural Conservation Program	45	45	45
Emergency Conservation Program	67	62	0
COMMODITY CREDIT CORPORATION:			
Commodity Credit Corporation	1,065	1,385	1,385
CCC Export Loans Program Account	345	345	345
Farm Storage Facility Loans Program Account	8	0	0
RISK MANAGEMENT AGENCY: Federal Crop Insurance Fund	284	458	501
FOREIGN AGRICULTURAL SERVICE:			
Salaries and Expenses	25	25	25
Scientific Activities Overseas (Foreign Currency Program)	1	1	0
PUBLIC LAW 480:			
Title I:			
Program Account	371	0	0
Ocean Freight Differential Grants	85	0	0
Title II & III Grants	91	.....	.....
RURAL DEVELOPMENT: Rural Community Advancement Program	11	3	3
RURAL UTILITIES SERVICE: Distance Learning and Telemedicine Program	3	0	1
RURAL HOUSING SERVICE:			
Rural Housing Assistance Grants	10	0	0
Rental Assistance Program	14	0	0
Rural Housing Insurance Fund Program Account	24	0	0
RURAL BUSINESS–COOPERATIVE SERVICE:			
Rural Empowerment Zones/Enterprise Community Grants	13	0	0
Rural Economic Development Grants	7	4	4
National Sheep Industry Improvement Center	9	5	5
FOOD AND NUTRITION SERVICE:			
Food Stamp Program	92	263	298
Child Nutrition Programs	410	347	3

UNITED STATES DEPARTMENT OF AGRICULTURE UNOBLIGATED BALANCES BY ACCOUNT: END OF YEAR—Continued

[Dollars in millions]

Agency or Item	2002 actual	2001 estimated	2002 estimated
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	2	0	0
Commodity Assistance Program	7	5	0
Food Donations Programs	1	0	0
NATURAL RESOURCES CONSERVATION SERVICE:			
Conservation Operations	11	0	0
Watershed and Flood Prevention Operations	65	0	0
Forestry Incentives Program	3	0	0
Resource Conservation and Development	1	0	0
Great Plains Conservation Program	3	3	3
Colorado River Basin Salinity Control Program	1	1	I
Wildlife Habitat Incentives Program	1	0	0
Rural Clean Water Program	5	5	5
FOOD SAFETY AND INSPECTION SERVICE	17	17	17
AGRICULTURAL RESEARCH SERVICE:			
Salaries & Expenses	6	0	0
Buildings and Facilities	109	133	114
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE:			
Research and Education Activities	67	9	9
Extension Activities	2	2	2
Initiative for Future Agriculture and Food Systems	120	120	120
Buildings and Facilities	3	0	0
AGRICULTURAL MARKETING SERVICE: Marketing Services	43	43	43
ANIMAL AND PLANT HEALTH INSPECTION SERVICE:			
Salaries and Expenses—Appropriated	35	72	72
Buildings and Facilities	16	9	2
GRAIN INSPECTION, PACKERS AND STOCKYARDS ADMIN: Inspection and Weighing Services	6	6	6
OFFICE OF THE SECRETARY	14	2	1
Fund for Rural America	60	60	60
DEPARTMENTAL ADMINISTRATION:			
Agriculture Buildings and Facilities and Rental Payments	16	16	16
Hazardous Materials Management	I	1	I
OFFICE OF THE CHIEF INFORMATION OFFICER	3	0	0

QUESTIONS SUBMITTED BY SENATOR ARLEN SPECTER

DAIRY

Question. Milk prices dropped to $9.63 per hundredweight at the end of 1999, the lowest price in 21 years (since August of 1978). This was a drop of $7.71 from December of 1998, when the price was $17.34. Over the past several years, price swings of 30 to 40 percent from one month to the next have become common.

Agriculture is the largest industry in Pennsylvania and dairy is its single largest component. Pennsylvania is the fourth largest dairy producer in the nation and there are approximately 9,900 dairy farms which produce $1.73 billion worth of milk each year. Over the past decade, however, Pennsylvania has lost an average of 300–500 farmers per year. Between 1993 and 1998, Pennsylvania lost 11.4 percent of its dairy farmers. While facing record low prices, Pennsylvania farmers often have to deal with droughts, other natural disasters, high feed and transportation costs and other variables that challenge their ability to sustain their farms. Pennsylvania dairy farmers continue to face low farm prices for their milk. What action is the Administration taking to help dairy farmers who are facing record low milk prices?

Answer. USDA has purchased 300 million pounds of nonfat dry milk and 11 million pounds of cheese, so far in fiscal year 2001 (October 1-April 30), in order to support the price of milk used for manufactured products above $9.90 cents per hundredweight. Expenditures of about $400 million are expected for dairy product purchases under the price support program during fiscal year 2001. An additional $6.7 million has been spent in the Dairy Export Incentive Program to aid in making export sales of dairy products during fiscal year 2001. An additional allotment for further export aid will become available July 1, 2001.

The Dairy Market Loss Assistance Program made payments to dairy producers of nearly 65 cents per hundredweight (cwt) on up to 39,000 cwt of milk production. Expenditures under this program are nearly complete and total about $665 million.

The national average all-milk price for CY 2001 is expected to be $1.70 cents per cwt higher than it was in CY 2000. This should increase dairy farm income from milk sales by about $2.6 billion, or 13 percent. During the first quarter this year, "all milk price" was $1.63 per cwt above the same period last year.

Question. What is the relationship between the price paid by consumers for milk in retail settings to the price received by dairy farmers for providing the milk?

Answer. There seems to be a limited relationship between retail price of milk and the prices received by farmers. In the short term, changes in prices received by farmers may not be reflected in the retail prices consumers pay. Economic studies on milk retail-farm gate price spread indicate that the farmer share of the retail milk prices is nearly 30 percent. Other factors such as the processing, transportation, distribution, wholesaling, marketing, advertizing, profits, etc. make up the rest. However, over the long-run, consistent changes in prices received by farmers get reflected in the retail price, i.e., a consistent increase or decrease in prices received by farmers will result in increase or decrease in retail prices, though the magnitude of the change may be different due to other components of the price spread. Market observations suggest that due to market forces and nature of the business practices, the reaction time is shorter for price increases compared to price decreases. Once increased, the downward adjustment of prices is "sticky."

Question. According to a recent General Accounting Office report (GAO–01–326), milk protein concentrate (MPC) imports grew rapidly between 1990 and 1999, and nearly doubled between 1998 and 1999. Many people involved in the dairy industry are concerned about the safety of MPC and circumvention of regulations prohibiting use of MPC in cheese production. Are these concerns valid and what activities is USDA undertaking to respond to these concerns?

Answer. As noted in the GAO report, the Food and Drug Administration found no violations of the use of imported MPCs in standardized cheese production in fiscal year 1999. The report does point out, however, that Vermont State inspectors in the year 2000 found two cheese plants that were using imported MPCs to make standardized cheeses in violation of Federal and state regulations, and that both of these plants discontinued the practice when issued warning letters by the State. FDA also has the responsibility of ensuring compliance of imported dairy products with U.S. public health requirements. Regarding the safety of MPCs, the GAO report states that "FDA officials told us that these imports pose little food safety risk and therefore receive minimal monitoring."

Question. What actions are currently being taken by USDA or other departments and agencies in coordination with USDA to defend U.S. farmers against Foot and Mouth Disease and Mad Cow Disease?

Answer. USDA has taken a number of recent actions to defend U.S. farmers against FMD and bovine spongiform encephalopathy, commonly referred to as mad cow disease. USDA has placed additional personnel at high-traffic international ports of entry to assist with passenger clearance, cargo inspection, cleaning and disinfection, and mail and small package inspection. As part of these efforts, approximately 350 additional staff are being hired, and USDA has authorized the use of an additional $32 million from APHIS—user fee account to support this personnel increase through fiscal year 2002. APHIS is also accelerating the training and placement of supplementary detector dog teams at key air and cargo ports.

Since the first detection of FMD in the UK, USDA has been coordinating and meeting regularly with regional USDA officials, their counterparts with the U.S. Customs Service and the Department of Defense, State agriculture and veterinary officials, university experts, and airline/travel industry representatives.

APHIS has also held conference calls with State agriculture commissioners about USDA exclusion efforts. State agriculture commissioners were given the opportunity to ask APHIS officials questions about preparedness and response efforts should FMD ever be detected in the United States. APHIS officials have also met directly with State officials on several occasions.

To assist with preparedness, the National Association of State Departments of Agriculture is exploring acceptable methods of carcass disposal in each State. State officials have been asked to assume that the largest herd in the State has to be depopulated and carcasses disposed of as close to the premises as possible. This planning will greatly assist any future efforts to eradicate a foreign animal disease by depopulating and disposing of infected or potentially exposed animals.

APHIS continues to coordinate the weekly deployment of U.S. veterinary teams to the UK. These teams, comprised of State and Federal veterinarians, are providing assistance with the FMD eradication program there. Returning team members are

bringing back important information with regard to containing and eradicating an FMD outbreak. APHIS will continue to coordinate these assistance efforts for as long as requested by UK officials.

The Tripartite Exercise 2000, an FMD outbreak simulation involving Canada, Mexico, and the United States, resulted in a committed effort by all three countries to collaborate on efforts to prevent FMD in North America. As a result of lessons learned during the exercise, APHIS has updated its FMD response plan to incorporate new information about communication and vaccination in the event of an outbreak.

USDA has also embarked on an aggressive public information campaign in regard to FMD. These efforts have included posting additional advisory signs in airports, broadcasting public service announcements, and establishing an information hotline and website to inform the public of the steps that they can take to prevent FMD from entering the United States.

USDA has implemented numerous prevention, surveillance, and education measures to prevent the occurrence of BSE in our country's livestock population. Since 1989, we have severely restricted imports of cattle, other ruminants, and ruminant products from countries where BSE is known to exist. As a further precaution, we expanded the prohibition in 1997 to include the importation of all ruminants and most ruminant-origin products from European countries, including countries where BSE has not been reported. As of December 7, 2000, we have also prohibited all imports of rendered animal protein products, regardless of species, from Europe. This ban followed the determination by the European Union that some of this material was potentially cross-contaminated with the BSE agent.

APHIS and FSIS conduct an active surveillance program for BSE. The surveillance program includes monitoring of field cases of cattle exhibiting signs of neurological disease, cattle condemned at slaughter for neurologic reasons, rabies-negative cattle submitted to public health laboratories, neurologic cases submitted to veterinary diagnostic laboratories and teaching hospitals, and sampling of cattle that are nonambulatory (downer cattle/fallen stock) at slaughter. APHIS and FSIS have also cooperatively drafted an emergency response plan to be used in the event that a case of BSE is detected in the United States.

APHIS established a TSE (transmissible spongiform encephalopathy) Working Group in the late 1980s to study the issues surrounding this group of degenerative neurological diseases. TSEs include BSE and scrapie, a disease that affects sheep and has been present in the United States since at least 1947. The TSE Working Group makes policy recommendations for preventing BSE from entering the United States and serves as a liaison to Federal and State agencies to coordinate all efforts against BSE. Members of the Working Group also work with industry representatives and foreign governments to provide accurate technical information about TSEs.

SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC)

Question. Concerns have been raised by the National Association of WIC Directors and other groups regarding the Administration's WIC participation projections for fiscal year 2002, upon which the budget request is predicated. How confident is the Administration in its projected average monthly participation of 7.25 million women, infants and children in this important program?

Answer. At this time we believe the Administration's projected average monthly participation of 7.25 million for fiscal year 2002 is accurate. However, projection of future WIC participation is inherently difficult and changes in economic conditions could impact demand for services. The Department plans to closely monitor the Program's participation over the next several months.

Question. The Commonwealth of Pennsylvania joined the Farmers Market Nutrition Program in 1989. Since that time, the program has provided WIC recipients the opportunity to purchase fresh food directly from local farmers. The Administration's budget includes approximately $20 million for this crucial program, including $9,956,000 from any funds not needed to maintain current WIC caseload levels. Given the importance of this program to so many low-income women and children throughout the nation, are you concerned about a funding shortfall that may occur if WIC caseload increases do not allow for transfer of this necessary additional $9.956 million?

Answer. At this time, the Department believes that projected WIC caseload can be supported with funding levels requested in the fiscal year 2002 President's Budget request. However, should actual WIC participation exceed our projections, appropriations language that makes funding for the WIC Farmers' Market Nutrition Pro-

gram (FMNP) contingent on WIC Program caseload may be problematic for the FMNP in fiscal year 2002.

QUESTIONS SUBMITTED BY SENATOR LARRY CRAIG

NATIONAL NUTRITION MONITORING SYSTEM AND THE DISCONTINUATION OF THE USDA SURVEY, THE CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS (CSFII)

Question. In fiscal year 2000, USDA announced plans to discontinue its food consumption survey, the Continuing Survey of Food Intakes by Individuals (CSFII) due to lack of adequate funding. It is my understanding that in the absence of CSFII, USDA plans to rely on dietary data collected by the U.S. Department of Health and Human Services (DHHS). There is concern that without CSFII, USDA can no longer be assured it will receive the types of data needed in a timely fashion to support the multi-faceted functions of the Department.

Without the USDA data, how can USDA monitor and evaluate programs and how can we have access to the information we need to make programmatic adjustments to maximize benefit and minimize cost?

Answer. The USDA will not discontinue its food intake survey. The USDA Agricultural Research Service (ARS), and the Department of Health and Human Services (DHHS) National Center for Health Statistics (NCHS) have been planning over the past three years the integration of the Continuing Survey of Food Intakes by Individuals (CSFII) and the National Health and Nutrition Examination Survey (NHANES) as set forth in the National Nutrition Monitoring and Related Research Act of 1990. In the CSFII/NHANES integrated survey, the USDA will collect, process and analyze exactly the same information as the USDA had collected previously in a free standing CSFII. The data will be collected and processed using the USDA developed methodology and will be released in the same time frame as was previously released for the CSFII. In addition, the benefits of the integration allow for continuous annual collection of the data (as opposed to periodic collection previously), a full second day of data collection from all respondents, conversion of the foods consumed into approximately 50 percent more nutrients, an improved multipass method of dietary intake collection, and for the first time a linkage between the intake of foods and medical and diagnostic information for all respondents.

USDA is committed to collecting the important information provided by the CSFII. Integration with the NHANES survey will allow the Agency to perform this task with currently available funding; enhancing data that historically was collected by both the USDA and DHHS.

Question. My understanding is that both USDA and DHHS surveys collected dietary data on 5,000 individuals creating a 10,000 sample size. Since DHHS isn't planning to increase their sample size to compensate for the loss of the 5,000 household CSFII sample, what are the implications of losing half of the total number in the sample?

Answer. Ideally, the sample size should be much larger than even the 10,000 number. In recent conversations with Statistics Canada, we have learned that their national food consumption survey is planned at 30,000 respondents. While it is true that in the past both the NHANES and the CSFII included 5,000 respondents per year, both surveys were not necessarily ongoing at the same time. In addition, both surveys were periodic in that data collection proceeded for three years and was typically followed by a period of several years where no data were collected. So, in any given year, there could have been no data collected, 5,000 respondents, or a maximum of 10,000 respondents. While it is true that the integration of the two surveys will reduce the data collection to a maximum of 5,000 respondents, one of the benefits of the joined survey activities is that CSFII data will be truly continuous i.e., it will be collected every year. Furthermore, a single method of data collection should mitigate some of the inconsistencies that have been well noted between the CSFII and NHANES in the past. Ideally, however, increasing the sample size of the survey, which would be easy to do with the merged survey, would be highly desirable to continue to monitor the food intake of populations at risk. The issue of what is an adequate sample size is an important one; these nationwide food consumption surveys are extremely expensive to conduct.

Question. What data, or types of data, were collected by USDA in CSFII that will not be collected in the DHHS survey?

Answer. The combined survey will produce data that was not available previously including continuously collected data, a much enhanced nutrient analysis of foods consumed and important health information on respondents. In the CSFII/NHANES

integrated survey, the USDA will collect, process, and analyze exactly the same information as the Agency had previously collected in a free-standing CSFII. The major concern with the combined survey is information on seasonal variation in diets. This concern arises out of the fact that the data for day one of the survey will be collected in the NHANES mobile trailers, which are driven to the locations of data collection. Because of the reliance on the trailers, the ability to collect data in the middle of winter in cold climates is somewhat limited. USDA and DHHS are aware of this limitation and we have planned accordingly. DHHS has winterized the trailers and has made adjustments in scheduling in order to provide more cold weather data collection. In addition, we think that we will collect the information that we need on seasonal variation by collecting the second day of food intake data by telephone, which is obviously not going to be affected by weather. Telephone data collection works well with NHANES (approximately 85 percent response rate).

Data collected in the past has formed the basis for the Household Food Consumption Survey (HFCS). USDA is committed to collecting these data and we believe we can collect and release them similarly to what has been done in the past. These data were collected periodically by telephone from the CSFII respondents. The data now will be collected from the 5,000 integrated survey respondents.

Question. Given the many competing interests and various health measurements and assessments performed in the DHHS survey, can USDA guarantee that questions of interest to USDA always will be included in the DHHS survey?

Answer. While the nutrition component of the NHANES is small relative to the overall scope of the NHANES, it is an essential component. USDA has worked with DHHS for the past 4 years to develop and implement the integrated survey and both parties have been cooperative and made concessions to each other to accommodate the needs of customers and stakeholders of both surveys. This dialog and joint planning has been helpful to allow us to focus on what are the important pieces of information that are needed by the USDA for those who have relied on the CSFII. Throughout the planning process we have held numerous stakeholder meetings to ensure that we are aware of the needs of users of the data. It is interesting to note that several of the major users of the CSFII data have in the past been financial supporters of NHANES. It is also interesting to note that although there seems to be widespread support by USDA stakeholders for the merged survey, many of the concerns that have been raised would not have been met with a free standing CSFII, such as continued over sampling of children as was done by USDA in response to a one year appropriation. If at any time in the future, the USDA perceives that the needs of the users of our data are not being met, we will look at other ways of collecting the data.

QUESTIONS SUBMITTED BY SENATOR HERB KOHL

FOOT AND MOUTH DISEASE

Question. Madame Secretary, I appreciate your comments in regard to the question I verbally posed about the steps necessary to avoid an outbreak of Foot and Mouth Disease, or similar animal diseases in this country. As I mentioned, if an outbreak were to occur in my state, with its reliance on the dairy industry, the consequences would be absolutely devastating, a fact I also pointed out in my April 17th letter to you.

In that letter I mentioned a troubling story on this subject that appeared in the Wisconsin State Journal on April 4th which reported shortfalls in the inspection procedures at U.S. points of entry. That story made reference to specific incidents at O'Hare International Airport, which may be representative of international airports around the country. For example, a traveler who had been in the British countryside had to insist repeatedly to airport officials that special steps were necessary to disinfect her shoes. It should be recognized that many travelers to rural England spend time in the proximity of livestock (such as at a rural Bed and Breakfast) without necessarily considering their experience as being a "farm" visit.

While your response to my question provided general information, it did not specifically answer the question I asked. Have you had a chance to review that story and would you please respond to the concerns it raises regarding travelers like Ms. Randall and whether USDA has taken actions either internally or with other agencies to assure that incidents like the one reported will not occur?

Answer. We are concerned about such reports and continue to work with related agencies to reduce such incidents. All international travelers must state on their Customs declaration form whether or not they have been on a farm or in contact with livestock and if they are bringing any meat or dairy products from their travels

back with them. The Animal and Plant Health Inspection Service (APHIS) is working closely with the U.S. Immigration and Naturalization Service and U.S. Customs Service to ensure that they refer all passengers, who check "yes" to the agriculture question #11 on the Customs declaration, to an APHIS official. APHIS officials will inspect travelers' baggage if they indicate they have been on a farm or in contact with livestock. We have determined that footwear that is clean (i.e., no appearance of manure, dirt, or other particulate matter) does not provide the appropriate conditions (i.e., moisture level, pH, and temperature) for the FMD virus to survive. Footwear that appears dirty can provide the appropriate conditions for carrying FMD and must be disinfected with detergent and bleach. To accommodate passengers who are still concerned that they could be carrying FMD after we inspect their footwear and determine there is no risk, APHIS inspection policy now states that our inspectors will disinfect their footwear at their request.

Question. If a confirmed outbreak of Foot and Mouth Disease were to occur in this country, what USDA procedures are in place for disease containment? In other words, what specific actions does USDA have as planned contingencies if an outbreak were to occur? Would USDA plan to offer compensation to affected livestock producers? How would USDA prevent the transportation of infected cattle within the United States? How would USDA handle infected herds? Would there be whole herd slaughters as we have witnessed in the UK?

Answer. If APHIS were to confirm an outbreak of FMD in the United States, APHIS would respond according to the Agency's FMD response plan. Because specific outbreak situations vary, and each State's emergency response capabilities differ, APHIS' FMD response plan is designed to be flexible and dynamic. APHIS' FMD response plan taps State and Federal resources as available, and allows the Agency's animal health expertise and coordination skills to fill any remaining gaps.

Upon the initial confirmation of FMD, APHIS and State officials would immediately begin investigating the source and trace all animals that may have come into contact with the disease. These officials inform both State and Federal officials on the status of their investigation and will also initiate emergency response efforts at the State and local level. These measures include notifying State agriculture and, if necessary, public health officials of the disease detection; securing the biosecurity of the affected site including depopulating and disposing of the whole herd and cleaning and disinfecting premises; establishing and maintaining animal movement quarantines, and alerting officials in neighboring States and the international community. Upon spread of the disease, APHIS and States would enhance surveillance efforts, expand quarantines as needed, conduct a comprehensive public media campaign to alert the public on the signs and transmission of FMD. After identification of the subtype, APHIS would activate the FMD vaccine bank, order vaccine doses, and consider the use of vaccines as a tool in the eradication effort.

USDA has developed a compensation policy with the Office of Management and Budget and with input from other interested parties. The goal of this policy is to ensure that an outbreak is located and diseased or exposed animals are destroyed as soon as possible. For that, we need the full cooperation of all producers. For animals depopulated to eradicate a disease, USDA has traditionally paid an indemnity approximating the fair market value of the animals. We intend to provide compensation for the fair market value of animals depopulated due to FMD, possibly including other specific direct costs incurred by producers. We will provide more comprehensive information on our compensation policy in the near future.

Question. Please provide information regarding new technologies (including vaccines) that have been or are being developed to combat Foot and Mouth Disease or similar animal diseases.

Answer. ARS has developed and is currently validating a highly specific nucleic acid on-site detection technology that allows minimally trained personnel using a briefcase-sized device to definitively identify FMD virus on the farm within an hour. This on-site technology can also be adapted to screen imported carcasses for animals that have been previously infected with FMD and also for animals that have been vaccinated against the disease.

ARS will test two promising vaccine candidates. The first is a synthetic peptide vaccine that is being produced by a company on Long Island, NY. The technology is based on research conducted by ARS scientists at Plum Island Animal Disease Center (PIADC) over the past 20 years. The company has data to indicate that this vaccine protects swine from Type O FMD virus and has been selling the product in Taiwan and China. ARS is currently proposing to work with this company to examine the vaccine's protective ability for cattle and sheep and to determine if the virus is carried by vaccinated animals that were later exposed to infection. This peptide vaccine would be the only readily available product should the U.S. urgently need to vaccinate animals with a type of virus vaccine not present in the North

American Vaccine Bank. The second candidate vaccine is an ARS-developed adenovirus vectored (genetically engineered) FMD vaccine that has been shown to protect swine in laboratory studies. This work will be extended to tests in cattle and sheep to determine if all species are protected. These two vaccines may differ in their ability to protect livestock in case of an outbreak and will be compared for likely efficacy in those conditions.

ARS also has a modest program on Vesicular stomatitis viruses (VSV); these are insect-transmitted viruses that cause vesicular disease in cattle, swine, horses and humans, and are clinically indistinguishable from foot-and-mouth disease. The ARS program on VSV is conducted at: (1) the Arthropod-Borne Animal Disease Research Laboratory (ABADRL), Laramie, Wyoming where scientists are investigating the role of biting arthropods in VSV transmission; and (2) at PIADC, Greenport, New York where researchers are determining genomic information useful for detecting exotic strains of VSV, and tracking the origin of VS strains causing outbreaks in the U.S. In addition they are carrying out pathogenesis studies in livestock that will be useful for development of vaccines and therapeutic agents. There are no VSV vaccines commercially available in the U.S. The livestock industry is reluctant to use traditional killed-virus vaccines because vaccinated animals would be serologically indistinguishable from infected ones, which would have important trade implications.

EMERGENCY ASSISTANCE

Question. We have all seen on recent national news broadcasts the flood waters that have been sweeping down the Midwest along the Mississippi, Wisconsin, Red Rivers and others. This year, the Mississippi River is cresting at record levels and lands in my state are still underwater and will be for some time. We don't know yet how badly scoured those lands will be or how costly the repair and recovery costs will be.

I have received a letter from Senator Wellstone from my neighboring state of Minnesota who reports that on top of already dismal conditions, just this last weekend the central part of his state received 5 to 8 inches of snow, and an additional 4 inches of rain fell over central and southeast Minnesota affecting literally millions of acres of farmland and posing increased threats from scab and other grain disease this year if, in fact, farmers are able to put a crop in the soil.

Secretary Veneman, I understand that the President's budget includes $5.6 billion that can be made available to help people recover from the sort of devastation we are now seeing in the upper Midwest. It is also my understanding that that amount, $5.6 billion, is the total for all government agencies and programs for recovery from natural disasters. How will USDA determine among all agencies how much of that $5.6 billion should be allocated for agriculture related losses?

Answer. The $5.6 billion National Emergency Reserve would provide for additional needs arising for major disasters above and beyond normal and average needs. The budget provides for average funding needs for disaster related programs such as USDA's fire fighting program, FEMA's disaster assistance and others. The allocation of funds from the Emergency Reserve would be proposed by the President and acted upon by the Congress. USDA will, of course, monitor disaster related conditions and needs related to its programs.

Question. Are there any other sources of funds within the budget available if recovery needs exceed $5.6 billion?

Answer. The President's Budget also provides for a contingency reserve to allow for unanticipated priority spending needs including such things as emergency farm economic and disaster assistance.

Question. If there are no additional funds budgeted, then it would appear we are sending a message that Federal assistance to flood and storm victims may not be provided at levels similar to previous disasters. Do you believe that is fair to victims today, or do you believe that victims of, say for example Hurricane Floyd or the Grand Forks flood of 1997 were over compensated?

Answer. The budget does provide funding for various governmentwide disaster relief programs such as FEMA disaster assistance, USDA and DOI firefighting, and SBA disaster loans at levels commensurate with normal or average needs. The proposed Emergency Reserve is an attempt to provide a mechanism to meet major unexpected needs without resort to unplanned supplemental emergency programs which may be disruptive to overall budget planning and discipline.

Question. Does USDA have plans to assess the damage from current flood events and report those findings to the Congress with a request for supplemental funding? If so, how soon may we expect to receive such a request?

Answer. USDA is monitoring the flooding situation closely. However, funding needs assessments can only be made after the flood waters have receded. For the Emergency Watershed Protection (EWP) program, initial funding requirements will be determined within a few weeks of the water receding and the sites becoming accessible for technical evaluations.

Question. In what ways and how soon may victims of the current flooding in the Upper Midwest expect assistance from USDA?

Answer. We are continuing to monitor this situation, but cannot yet determine the extent of potential needs.

Question. Does the Bush Administration plan to respond to disaster needs occurring during fiscal year 2001 in a way that might differ from future years? If so, explain.

Answer. It is too early to determine whether or how planning in future years might be changed.

Question. Does USDA have plans to alter its policy in regard to disaster assistance to areas where there is a history of natural disasters, such as in frequently flooded areas? If so, how might that policy change?

Answer. We need to review this concern, before determining whether it is reasonable to explore any change in policy.

DAIRY COMPACTS

Question. Secretary Veneman, when we visited shortly after your confirmation as Secretary, I voiced my objection to the Northeast Dairy Compact and to the imposition of domestic trade barriers generally. Aside from the basic policy and constitutional questions that surround the issue of diary compacts, dairy producers in Wisconsin are at risk of losing their livelihoods due to the market distorting features of the existing compact and face even more stringent difficulties if there were an expansion of compacts in other states.

Do you accept, as a matter of policy, that U.S. dairy producers in one region of the country should be allowed to suffer financial ruin due to market distorting features imposed on them by producers in another region of the country?

Answer. U.S farm policy in general during the past several years has been to increase the role of market forces in determining what commodities are produced and consumed and in determining how much is produced and consumed. We think that in general that is the appropriate guiding principle for fostering an efficient farm sector. This applies to dairy as well. However, we recognize that adjustments in dairy policy toward market orientation have been gradual and that is not inappropriate given the nature of the dairy sector. With specific regard to the Northeast Dairy Compact, a number of studies have shown it has probably increased prices to consumers in the region, increased prices received by producers who sell milk in the Compact area and has slightly reduced prices to producers elsewhere. None of these studies have taken into account the recent supply control measures instituted in the Northeast Compact which may mitigate the effects on producers elsewhere. We are aware that GAO is currently studying the Northeast Compact and await its findings.

Question. Do you believe it is consistent with the Bush Administration's policy on free trade that we should seek free trade abroad, but not free trade at home?

Answer. We believe that in the long run free competitive markets both domestically and internationally are the appropriate goals to be moving forward. Having said that we are also cognizant of the costs of adjustment which would be affected by changes in policy.

Question. What would be the Bush Administration's view if the Northeast Dairy Compact was the creation of the European Union rather than a collection of states in this country? Would WTO principles apply in such a case?

Answer. The Northeast Dairy Compact acts to manage the market for producer milk within its region rather than to place direct restrictions on trade. It is our view that such Compacts are not inconsistent with WTO principles, and although questions have been asked about the Northeast Compact by other WTO members, no serious allegations of noncompliance have been made against it.

Question. President Bush in Canada last week worked toward an agreement for Trade in the Americas to tear down trade barriers in this hemisphere. Does that agreement pertain to trade within the United States and if so, would it not be inconsistent with dairy compacts?

Answer. Interstate commerce within the United States is protected and regulated as provided for under the Constitution, and would not be limited or otherwise affected by the proposed Free Trade Area of the Americas or any other international trade agreement.

Question. Don't you believe it would be much more productive to develop a dairy policy that is national in scope that would treat all dairy producers fairly than one that pits one group of producers against another? Do you have any suggestions on how such a policy should be crafted? Are you willing to work with us toward the development of such a policy?

Answer. We will be willing to work with the Congress and all affected interests to search for an appropriate national policy for dairy. As your question indicates, the varying regional interests in dairy production make the formulation of a reasonable national policy challenging.

NATIONAL APPEALS DIVISION

Question. I have previously been concerned about a large number of decisions favorable to farmers by regional hearing officers being overturned by the Director of NAD. I also understand that NAD-wide training was held last year, emphasizing the planning and conduct of appeal hearings, including on-line training. What percentage of NAD employees have attended this training, and what benefits has NAD seen as a result of this?

Answer. According to NAD management, more than ninety-nine percent of NAD hearing officers attended NAD training conferences in 2000 and 2001. NAD's on-line training program is not yet complete. NAD is balancing available funds for training between providing traditional forms of training and continuing development of the on-line training program in fiscal year 2001. The training conferences emphasized listening, writing, format, reasoning, finding of fact, conclusions of law, judicial demeanor, subpoenas, hearing procedure and similar hearing- and determination-related matters.

As a result of training, NAD management says it is seeing improvements in the work of many hearing officers. NAD management reports that many hearing officers have applied the lessons of the training to hearing appeals and writing determinations. Hearings are more professional and determinations are better written with improved reasoning.

Question. Please provide information on how this training, and NAD's transition to its final rules published in June 1999, have affected the hearings process and outcomes, and how USDA has worked to ensure there is no bias against producers.

Answer. The Department will work hard to ensure that the NAD appeals process is fair and impartial. I will have NAD provide more specific information on its training program, final rules, and how the Department has worked to ensure there is no bias against producers.

[The information follows:]

The effects of training on the hearings process include increased professionalism in the way hearings are conducted and improvements in how determinations are written and supported by sound reasoning. The final rule involved only minor changes to the interim rule under which NAD operated since 1996. Changes implemented in the final rule involved the need for a personal signature in certain cases where it was not specified in the interim rule, options available to the hearing officer when a party fails to appear for a hearing, and delineating the status of third parties and interested parties. Overall, issuance of final rules had little substantive impact on the hearing process or the outcome of appeals.

NAD works to prevent bias through quality control procedures involving review of hearings and determinations to assure that all parties are treated alike and that all determinations are based solely on the application of the applicable regulations to the facts of the case. The Director has issued specific guidance in a NAD Directive, "Disqualification or Recusal from an Appeal," No. 99–08, dated March 19, 1999. Bias is not established by any recitation of numbers or percentages of determination results, but in a failure to conform to the highest standards of integrity and objectivity in applying the law. NAD adheres to such standards.

OFFICE OF THE CHIEF FINANCIAL OFFICER

Question. Please provide an update on the status of the current USDA financial management audit.

Answer. On February 26, 2001, the U.S. Department of Agriculture's (USDA) Office of Inspector General issued a disclaimer of opinion on the USDA Consolidated Financial Statements for fiscal year 2000. However, three of the Department's components—the Food and Nutrition Service, the Rural Telephone Bank; and the Federal Crop Insurance Corporation—received unqualified audit opinions and substantial progress has been made in improving the audit results of our other agencies. A variety of efforts are underway to resolve the Department's financial reporting

issues, and we are hopeful that these efforts will result in an improved audit opinion on the USDA consolidated financial statement for fiscal year 2001.

Question. How have the results of these audits, over the past three years, compared to other Federal agencies?

Answer. USDA received disclaimers of opinion on its consolidated financial statements for fiscal years 1998, 1999 and 2000. Of 24 major Federal agencies producing audited financial statements, seven, four, and two others in addition to USDA received disclaimers in 1998, 1999, and 2000 respectively.

COMMON COMPUTING ENVIRONMENT

Question. Please provide an update on establishment of the Common Computing Environment.

Answer. Since fiscal year 1998, the Service Center agencies (the Farm Service Agency, Rural Development, and the Natural Resources Conservation Service) have been replacing old, out-of-date and incompatible workstation computers with modern, common computing environment (CCE) workstations as part of the Department's Service Center Modernization Initiative. With requested resources in fiscal year 2002, we intend to complete the basic CCE infrastructure with the procurement of application servers and increased telecommunications capacity. I will have more detailed information provided for the record.

[The information follows:]

Priorities in fiscal year 2002 will include: increasing the Service Center agencies' telecommunications capacity and network security to allow customers to transact business electronically and acquiring high capacity servers needed to support the re-engineered business processes.

The CCE workstations have identical software consisting of office automation applications, such as word processing, and base program application software needed by one or more of the agencies. This common workstation and common "core" load of software make these machines interchangeable and provide employees with software that is in general use by the customer base and partners. It is anticipated that the remaining workstations will be procured in July/August 2001.

Network servers will provide full communications and connectivity of the Service Center workstations to the local and wide area networks. Network services that will be provided by these servers include security and access control, business quality electronic mail, printer and peripheral access, file storage and backup, and the management of local data for all employees within the Service Center. These servers also provide the mechanism for remote system management and configuration of the desktop and portable workstations. Currently, without the network servers, an update or fix of software on the workstations requires that an IT support person visits each office location and take each machine offline for about 1½ hours to perform the work. With the servers, these updates can be done remotely, from one location and during off hours so that no downtime or onsite work is required. Deployment of the network servers will begin later this year.

Additional funds from the Service Center agencies will complement the fiscal year 2002 CCE funding request by supporting continued business process re-engineering, data acquisition and training needed to reap the benefits of the new technology, as well as maintenance and support of existing legacy systems.

AGRICULTURE BUILDINGS AND FACILITIES AND RENTAL PAYMENTS

Question. I understand Phase One of the South Building Renovation is complete, and the contract bid period for Phase Two of the Renovation is currently underway. Please provide an estimated timetable on when Phase Two will be completed, and what the renovations entail.

Answer. Bids were received on April 13, 2001, for the Phase Two construction contract. Excluding delays due to unforeseen conditions, completion is scheduled for 1 year from the start date, with occupancy beginning in the summer of 2002.

The Phase Two renovation work includes total demolition of the existing interior construction of wing 4, except for First Floor historic preservation considerations involving existing corridor walls and doorways. The contract entails abatement of hazardous materials—asbestos and lead paint; upgraded mechanical, electrical, telecommunications and plumbing systems; new fire alarm and sprinkler systems; accommodations for persons with disabilities; and improved space tailored to the needs of the tenant agencies.

OFFICE OF THE GENERAL COUNSEL

Question. Last year, OGC was provided with $500,000 in emergency funds to be used on activities relating to concentration and consolidation of agricultural busi-

nesses. Please provide an update on how these funds have been used to date, and plans for expending any remaining funds.

Answer. According to the OGC, these funds will be used to hire additional attorneys to handle regulatory and enforcement cases arising from concentration specifically in the livestock and poultry industries. Two new attorneys will be coming on board within the next several weeks to augment the legal staff handling concentration-related cases, and OGC is also seeking to hire up to two additional new attorneys for this work.

OUTREACH FOR SOCIALLY DISADVANTAGED FARMERS

Question. I understand that the majority of projects funded with section 2501 funds were completed in fiscal year 2000. Please provide information on new and completed projects funded in fiscal year 2001 with section 2501 dollars.

Answer. I have been informed that all but one of the section 2501 projects were completed in fiscal year 2000. One project will complete its 5-year project with funding from fiscal year 2001 monies. A request for new project proposals, will be issued soon, and the remainder of the fiscal year 2001 funds will be awarded to the selected proposals later this year.

Question. Were all available funds committed?

Answer. Except for the one project which will complete its 5-year project with fiscal year 2001 program funds, none of the fiscal year 2001 funds have been committed yet. We expect to commit them later this year.

Question. Please provide information on the requirements for receiving this money, as well as examples of successful and unsuccessful uses of section 2501 funds.

Answer. The Request for Proposals for new section 2501 projects will be announced shortly. To receive funds, applicants will need to show that they can responsibly meet the intent of the program—that is, to provide outreach and technical assistance to socially disadvantaged farmers and ranchers to help them own and operate farms and ranches and to participate in agricultural programs. We will provide a few examples of completed projects for the record.

[The information follows.]

Alabama A&M University developed a program of technical assistance to reverse the decline in the number of socially disadvantaged farmers and ranchers in its area and improve family living conditions. It increased the information available to the participants and increased their participation in Federal and local assistance programs.

Delaware State University and the University of Maryland Eastern Shore worked together to build small-scale agriculture and coordinate markets for farm products in their area. They provided intensive training in farm production and improved the financial planning of the participants. These participants played an important part in the economic revitalization of their small communities.

Langston University (Oklahoma) provided technical assistance in farm management and alternative use and non-farm activities, which improved farm income through better management and financial analysis and expanded the alternatives for part-time and off-farm employment.

Lac Courte Oreilles Objibwa Community College (Wisconsin) developed and implemented an agricultural and resource management program that integrated modern technology with traditional practices in farming and marketing activities. The project contributed to a more diverse and sustainable local farm economy.

AGRICULTURE RESEARCH

Question. There is a growing concern that funding for agricultural research is not keeping pace with needs, nor keeping in line with research in other sectors. For example, the President's budget requests funding of $969 million for the Agricultural Research Service and $994 million for the Cooperative State Research, Education, and Extension service, the two primary research agencies of USDA. When compared to other agencies such as the National Science Foundation or the National Institutes of Health, the total funding for USDA research is often the same level as the annual increases in the non-ag sector. This problem presents the reality of an exodus of skilled ag researchers to fields of science where Federal funds are more readily available. Also, at a time when emerging plant and animal pest and disease issues, plant and animal genetics issues, food safety issues, and a host of other challenges are facing U.S. farmers, this drain of expertise and overall lack on an adequate research base is most troubling. Can you explain why the administration has not placed a greater emphasis on agricultural research and why it lags so far behind the Federal research support in the non-ag sectors?

Answer. Maintaining and strengthening the competitive advantage of U.S. farmers will require investments in new technology. To meet these needs within a restrained budget, we have taken a hard look at priorities. The President's Budget provides funding to cover increased pay costs for in-house agricultural research and redirects priorities to fund increases in selected National priority areas. Proposed reductions are limited to earmarked projects and facility construction.

Question. Did you express to OMB or the White House during the development of the fiscal year 2002 budget the need to bring agricultural research more in line with other Federal research efforts?

Answer. Due to the change in Administration, much of the budget development for the 2002 President's budget was held in a few weeks directly following the Presidential Inauguration. I was assisted in negotiations by a small transition subcabinet-level policy staff. During this brief period of discussions, we focused on negotiating for funds to support my highest priority research initiatives. These initiatives include research on mad cow disease, biotechnology risk assessment, biobased products, maintaining a broad range of extramural research and education programs, and other high priority initiatives.

Question. Do you think that current levels of agricultural research are adequate to meet the challenges facing the U.S. farm sector today?

Answer. The research agencies consistently meet the challenges that arise with today's ever-changing global farm economy, including addressing needs ranging from organic production, to improved pest and disease control, to bioengineered foods. Research programs must serve small and minority farmers; sustain the rural economy and provide opportunities for growth; and support efforts to further develop markets locally and abroad. These programs must and do provide the scientific basis for a multitude of programs, such as producing high quality foods, examining human nutrition, developing sound production practices that minimize environmental impacts and emphasize economics, and numerous other areas important to the agriculture system, in the field, in the home, and elsewhere. By maintaining a balanced portfolio of extramural grants and in-house research funding, the Department is able to manage its research program in order to address high priority research areas identified by our stakeholders in the U.S. farm sector.

ECONOMIC RESEARCH SERVICE

Question. Please provide information in regard to the coordination of ERS with FNS on establishing studies and evaluations priorities on the subject of nutrition.

Answer. The Economic Research Service works closely with the Food and Nutrition Service (FNS) in identifying and setting research priorities. FNS is the primary client for these studies and thus receives considerable weight in determining priorities for research. In addition to an annual written list of research priorities provided by FNS to ERS, ERS staff are in almost daily contact with FNS about prioritizing its research needs. ERS also seeks input from other stakeholders including Congress, researchers, practitioners, advocates, industry groups, and service providers.

AGRICULTURAL RESEARCH SERVICE

Question. Please provide an update on activities regarding Integrated Farming Systems programs in Wisconsin or other states.

Answer. The Agricultural Research Service (ARS) at the U.S. Dairy Forage Research Center (USDFRC), the University of Wisconsin (UW) and the Michael Fields Agricultural Institute (MFAI) all continue to conduct research in a cooperative project on integrated farming systems in Wisconsin. The USDFRC is in the process of hiring an agroecologist and a research geneticist to join the integrated farming system project. The USDFRC conducts research on (1) developing low-input management of intensive grazing systems, giving emphasis to procedures that provide needed supplements to growing and lactating dairy cattle without nutrient buildup in pastures and loss to the environment; (2) evaluating and developing cropping systems that provide quality feed for profitable dairy farms in an environmentally safe manner; (3) developing strategies for managing nutrients in crop-livestock systems with special emphasis on animal manure to, at minimal cost, maximize nutrient recycling and minimize environmental risks; (4) investigating surface loss of phosphorus and nitrogen from pasture paddocks that have been managed in different ways; and 5) cooperate in a multi-agency/institute project on farm diversification—"Small Grains Initiative," the goal of which is to incorporate small grains and legumes into a normal corn-soybean rotation while taking into account both production and marketing objectives. Researchers at other ARS locations are also cooperating in this last project and with MFAI on topics such as soil quality. This group has

also received USDA grant funding to expand their efforts to develop cropping systems utilizing cover crops and manure to optimize nitrogen and phosphorus use while minimizing their loss to leaching and runoff.

One of ARS' National Programs is entitled, "Integrated Agricultural Systems." ARS research on "integrated farming systems" is a major activity across the country. This National Program is unique in that it addresses the context in which research is conducted as well as the scope of the research. Attributes of projects in the Integrated Agricultural Systems National Program include among others: active producer/stakeholder participation; determination of interactions among components; involvement of interdisciplinary teams and multi-organizational collaborators; optimum use of long-term studies; use of natural ecological and biological resources whenever appropriate; and consideration of economic, environmental, community, and social concerns. The Administration's 2002 budget recommendations for the ARS Integration of Agricultural Systems budget line item include an increase of $484,000 for estimated pay cost increases in an effort to maintain the current level of scientific staffing in ARS.

Although it would be difficult for any one project to have all these attributes, there are ongoing ARS-led Integrated Agricultural Systems projects throughout the country that have many of these characteristics. For example, a project in Georgia, focusing on the use of cover crops and biocontrol, involves three ARS locations, three universities, a number of nongovernment organizations (NGOs) including Community in Schools and the Georgia Conservation Tillage Alliance, and multiple farmers with research sites on their farms. Another project led by ARS researchers in Ames, Iowa, is using farmers, consultants, university researchers, and NGOs, to develop environmentally sound and profitable farming systems for the highly erodible deep loess soils of the Cornbelt. An activity lead by scientists at the ARS unit in Mandan, North Dakota, in cooperation with seven other ARS Great Plains locations and numerous university cooperators and producers, is doing research on soil quality, cropping systems, and integrated crop-livestock production. One outcome, just released, is the decision support aid called "Crop Sequence Calculator" which enables northern plain farmers to choose the most profitable crop rotations based on their specific situation. More than 5,000 copies have already been distributed. Multiple ARS units across the Pacific Northwest, led by researchers in Corvallis, Oregon, are cooperating with other government agencies, NGOs, producers, and environmental groups to develop cropping systems compatible with salmon restoration. These, as well as other sustainable agricultural projects, are being conducted to meet the needs of ARS stakeholders expressed at the National Program workshops to address their integrated systems needs.

AGRICULTURAL RESEARCH SERVICE BUILDINGS AND FACILITIES

Question. Please provide an update on activities regarding planned improvements of the Cereal Crops Laboratory in Madison, Wisconsin.

Answer. ARS retained an architect-engineer to review the facility conditions and needs to support the research program at the Cereal Crops Laboratory in Madison, Wisconsin. The feasibility study identified three options to meet the needs of the program. The facility report requested by Congress is currently being reviewed in the Department. The report will assess the needs for the facilities in Madison, Wisconsin and provide current information on costs for the project.

Question. Please provide an update on activities regarding the National Animal Disease Laboratory in Ames, Iowa, including ARS coordination with APHIS regarding this facility.

Answer. In fiscal year 1999, ARS and APHIS agreed to develop a preliminary combined modernization plan. In combining modernization efforts of both agencies, efficiencies can be realized by consolidating facilities, and phasing of construction can be simplified by eliminating the need for swing space. Combining efforts also presents the opportunity to create a world class facility consisting of new, state-of-the-art structures for biocontainment research, diagnostics, and vaccine evaluation. New construction allows the structures to be optimally sited along an upgraded infrastructure spine; provides increased security, operations and maintenance efficiencies; and results in an enhanced research environment. The facility report requested by Congress was submitted on May 25, 2001. The report assesses the needs for the facilities in Ames, Iowa and provides current information on costs and scheduling for project alternatives.

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE

Question. Please provide information on Special Research Grants which as of fiscal year 2001 have received funding through this account for at least four consecu-

tive years and suggest other USDA grant programs for which these projects could compete.

Answer. Based on our funding history records, there are over 100 special grant projects which have been funded for the last four years. A table showing funding over the past four years for these grants is provided below for the record.

Some of these grants might qualify for funding under other grants programs administered by the Cooperative State Research, Education, and Extension Service—CSREES. CSREES administers programs related to a wide variety of national problem areas, including those that have a water quality, food safety, plant and animal genomics, biotechnology, or new uses focus. Many of the special grants projects tend to fall under these types of broad focus areas. However, the special grants provide earmarked funds for specific locations, without benefit of a competitive process including merit and peer review. Investigator-initiated basic research might qualify for support under broad national priorities of the National Research Initiative Competitive Grants Program. In addition, the Initiative for Future Agriculture and Food Systems gives priority to proposals that successfully integrate research, extension and education and/or address the concerns of small and mid-sized producers and land managers (especially in natural resource management and farm efficiency and profitability). The goal of IFAFS is to award large grants to multi-state, multi-institutional, and multi-disciplinary projects; preference will be given to those projects. Requests for proposals are modified each year to address the highest priority concerns for the U.S. agriculture and food system. CSREES administers a number of smaller programs that support work that is generally related to special grant topics, such as pest management and control programs, which might be funded under Improved Pest Control. These programs support alternative pest management practices. In addition, the Crops at Risk from Food Quality Protection Act—FQPA—Implementation and Risk Mitigation for Major Crops supports alternative pest management practices for crops at risk from loss of pest controls due to the FQPA. Food safety and water quality grants might also be supported under the programs under the Integrated Activities account.

[The information follows:]

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE RESEARCH AND EDUCATION ACTIVITIES SPECIAL RESEARCH GRANTS

[In thousands of dollars]

	1998 Actual	1999 Actual	2000 Actual	2001 Estimate
Aegilops cylindricum (WA; Jointed Goatgrass)	346	360	360	359
Aflatoxin, Illinois	113	113	113	131
Agricultural diversification, Hawaii	131	131	131	131
Agricultural diversity/Red Riv C (MN/ND)	250	250	250	374
Agriculture based indust. lubricants (IA)	200	250	250	349
Alliance for food protection (NE,GA)	300	300	300	299
Alternative crops, North Dakota	550	550	550	624
Alternative salmon products (Alaska)	400	400	553	644
Anml. Sci. Food Safety Con. (AR, KS, IA)	1,521	1,521	1,521	1,631
Apple fireblight (MI, NY)	500	500	500	499
Aquaculture, Louisiana	330	330	330	329
Aquaculture, Stoneville, Mississippi	642	592	592	591
Aquaculture Prod. and Mrktg. Dev. (WV)	600	750	750	748
Babcock Institute, Wisconsin	312	400	510	599
Ctr. for animal health & prod. (PA)	113	113	113	113
Center for rural studies, Vermont	32	200	200	200
Chesapeake Bay aquaculture	370	385	385	391
Competitiveness of ag. products, WA	677	680	680	679
Cool season legume research, ID & WA	329	329	329	328
Cranberry/blueberry disease & breed, NJ	220	220	220	220
Dairy and meat goat research (TX)	63	63	63	63
Delta rural revitalization, Mississippi	148	148	148	205
Drought mitigation (NE)	200	200	200	200
Ecosystems (AL)	500	500	500	499
Environmental research (NY)	486	486	400	399
Environmental risk factors/cancer (NY)	100	100	170	227
Expanded wheat pasture, (OK)	285	285	285	292
Feed barley for rangeland cattle, MT	600	600	638	692
Floriculture (Hawaii)	250	250	250	249

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE RESEARCH AND EDUCATION ACTIVITIES SPECIAL RESEARCH GRANTS—Continued

[In thousands of dollars]

	1998 Actual	1999 Actual	2000 Actual	2001 Estimate
Food & Ag Policy Institute, IA, & MO	800	800	800	948
Food irradiation, IA	200	200	200	225
Food Marketing Policy Center, Connecticut	332	400	400	494
Food processing center, Nebraska	42	42	42	42
Food Systems Research Group, Wisconsin.,	221	225	425	499
Forestry, Arkansas	523	523	523	522
Fruit & vegetable market analysis	296	320	320	347
Generic commodity promotions, research and evaluation, NY	212	212	198	198
Global Change	1,000	1,000	1,000	1,431
Grain Sorghum, Kansas	106	106	106	106
Grass seed cropping for sustainable ag	423	423	423	422
Human nutrition, IA	473	473	473	472
Human nutrition, LA	752	752	752	750
Human nutrition research, NY	622	622	622	621
Hydroponic tomato production (OH)	140	200	200	100
Illinois-Missouri Alliance for Biotech	1,184	1,184	1,184	1,239
Improved dairy management practices, PA	296	296	296	397
Improved fruit practices	445	445	445	444
Institute for Food Science & Enginr., AR	950	1,250	1,250	1,247
Integrated production systems, Oklahoma	161	180	180	180
International arid lands consortium	329	400	400	494
Iowa Biotechnology Consortium	1,564	1,564	1,564	1,561
Livestock and Dairy Policy (NY and TX)	445	475	475	569
Lowbush blueberry research (ME)	220	220	220	259
Maple research (VT)	100	100	100	119
Michigan Biotech. Consortium	675	675	675	723
Midwest Adv. Food Manufacturing Allianc,	423	423	423	461
Midwest agricultural products (IA)	592	592	592	645
Milk safety, Pennsylvania	268	250	298	374
Minor use animal drugs	550	550	550	549
Molluscan shellfish (OR)	400	400	400	399
Multi-commodity research (OR)	364	364	364	363
Multi-cropping strategies for aquaculture	127	127	127	127
National Bio. Impact Assessment	254	254	254	253
Nematode resist. genetic engineering, NM	127	127	127	127
Nonfood ag products, Nebraska	64	64	64	64
Oil from desert plants (NM)	175	175	175	175
Organic waste utilization (NM)	100	100	100	100
Pasture and forage research (Utah)	225	225	225	249
Peach tree short life, South Carolina	162	162	162	179
Pest control alternatives, SC	106	106	106	117
Phytophthora root rot, NM	127	127	127	138
Plant, drought, and disease resist. gene cataloging (NM)	150	150	213	249
Potato research	1,214	1,300	1,300	1,447
Preharvest food safety, KS	212	212	212	212
Preservation & processing, OK	226	226	226	226
Rangeland ecosystems, NM	185	200	200	299
Regional barley gene mapping project	348	400	425	587
Region. implications of farm prgs, MO, TX	294	294	294	293
Rice Modeling, AR	296	296	296	295
Rural Development Centers	423	523	523	522
Rural policies institute	644	644	644	820
Russian Wheat Aphid	200	200	200	249
Seafood harvesting, proc., mkt. (MS)	305	305	305	304
Small fruit research (OR, WA, ID)	212	300	300	324
Southwest Consortium for plant genetics and water resources	338	338	338	368
Soybean cyst nematode (MO)	450	475	475	599
STEEP III–water quality in Northwest	500	500	500	499
Sustainable agriculture (MI)	445	445	445	444
Sustainable agriculture (PA)	94	95	95	100
Sustainable agriculture systems (NE)	59	59	59	59

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE RESEARCH AND EDUCATION ACTIVITIES SPECIAL RESEARCH GRANTS—Continued

[In thousands of dollars]

	1998 Actual	1999 Actual	2000 Actual	2001 Estimate
Sustainable pest mgt-dryland wheat (MT)	400	400	425	461
Swine waste mgmt. (NC)	300	500	500	499
Tillage, silviculture, waste mgmt (LA)	212	212	212	212
Tropical & subtropical research	2,724	2,724	2,724	3,854
Vidalia onions (GA)	84	100	100	249
Viticulture consortium (NY, CA, PA)	800	1,000	1,000	1,497
Water conservation, (KS)	79	79	79	79
Weed control (ND)	423	423	423	435
Wheat genetic research (KS)	261	261	261	260
Wood utilization	3,536	5,136	5,136	5,773
Wool research (TX, MT, WY)	300	300	300	299
Total, Special Research Grants	42,598	46,323	46,953	52,304

WILDLIFE SERVICES

Question. Please provide an update on the agencies' non-lethal control activities and, in particular, the pilot programs in up to four states as provided in Public Law 106–387.

Answer. APHIS has taken steps to begin the project. APHIS has written a study protocol that will provide a statistically meaningful evaluation of the relative effectiveness of non-lethal predator management methods only versus the integrated approach of lethal and non-lethal management methods. This study is in addition to a broader, continuing research and methods development program APHIS conducts to protect livestock, crops, and human health and safety. APHIS devotes over 75 percent of their research effort to non-lethal development activities. APHIS has consulted with staffs of Senators Boxer and Smith, as well as with representatives from Defenders of Wildlife and the Humane Society of the United States, to identify the non-lethal methods to evaluate. The protocol calls for a four-year evaluation involving eight to twelve ranches each in California, Idaho, and West Virginia. The project is designed to evaluate both non-lethal and integrated management methods for two years on each ranch.

Question. Please provide information regarding the Wildlife Services activities in regard to wolf predation issues and control efforts in the Upper Midwest, including Minnesota, Wisconsin, and Michigan, and please compare the activities in that region with similar operations in the Rocky Mountain states.

Answer. The Minnesota wolf population has steadily increased from approximately 1,200 wolves in 1979, found only in the remote northeastern parts of the State, to approximately 2,600 wolves now. This population increase has caused a significant southern expansion with a contiguous range now covering approximately 40 percent of the State. Wisconsin began to monitor for wolf populations in 1979, with an initial report of 25 animals. In the late 1980s, this population began to steadily increase and there are approximately 250 wolves now. In 1995, wolf discoveries occurred in areas south of the northern Wisconsin region. As wolves began to occupy northern Wisconsin, individual wolf observations occurred in the Upper Peninsula of Michigan. The U.S. Fish and Wildlife Service (FWS) now estimates that approximately 200 wolves inhabit the Upper Peninsula. With this expanding natural population of gray wolves, we have been addressing wolf impacts in Minnesota since the mid 1970s. The population growth and expanding range have resulted in wolves moving into Wisconsin and Michigan. As the wolf population increases, so does the number of depredation incidents against livestock. We project our responses to wolf complaints in Minnesota, Wisconsin, and Michigan will reach 289 during fiscal year 2001, a 26 percent increase since fiscal year 1999.

The FWS gray wolf reintroduction in Wyoming (Yellowstone National Park) and Idaho has been so successful that wolf populations have expanded beyond original introduction site boundaries. From an original reintroduction of 66 wolves in 1995 and 1996, the FWS now estimates there are between 360–405 wolves in these two States. In addition, naturally occurring wolf populations in Montana have grown from an estimated 25–50 wolves in the early 1990s, to approximately 80 to 100 wolves today according to the FWS. In total, FWS estimates there are 440–505 wolves in the Northern Rocky Mountain area and that the total number of wolves

will triple in the next several years. APHIS—responsibility has increased significantly as a result of the wolf recovery efforts in Wyoming, Idaho, and Montana. We project our responses to wolf complaints in these States will reach 244 during fiscal year 2001, a 116 percent increase since fiscal year 1999. APHIS received $1,000,000 in fiscal year 2001 for predator/wolf control in Idaho, Montana, and Wyoming which was allocated equally among the three States. We are evaluating the impact of these expanding wolf populations and our ability to provide adequate service with the increased funding.

ANIMAL WELFARE

Question. It has been brought to my attention that in the past several years, there have been a variety of instances in several states, including Missouri and Minnesota, in which USDA Animal Care Inspectors had found no cases of noncompliance at facilities with significant animal welfare problems, or where sanctions for noncompliance have been lax or unenforced. Please provide me with detailed information on how the USDA administers and enforces sanctions to Animal Welfare Act violators, and how you ensure that Animal Care Inspectors are completing detailed inspections of animal facilities.

Answer. APHIS conducts regulatory activities which ensure the humane care and treatment of animals and horses as required by the Animal Welfare Act (AWA) of 1966 as amended (7 U.S.C. 2131–2159). These activities include inspection of certain establishments which handle animals intended for research, exhibition, and sale as pets.

APHIS uses a variety of methods to assure that AWA inspections are thorough, complete, and conducted in a consistent, uniform manner. We rely heavily on proper training to insure that each animal care inspector has the background and knowledge to conduct a proper inspection. With fiscal year 2001 approximately halfway complete, the program has conducted three training courses for inspectors so far this year. One course concentrated on research facilities, and the other two focused on basic inspection techniques. APHIS also held a regional conference for animal care inspectors this year which included training designed to promote consistent, high quality inspections.

APHIS recently published an Animal Care Inspection Manual which outlines inspection procedures and also contains a checklist for inspectors to assure that they have covered all areas of the regulations that are pertinent to the facility being inspected. To help ensure that Animal Care Inspectors are completing detailed inspections of animal facilities, each inspector is supervised by a Supervisory Animal Care Specialist who conducts periodic reviews of the inspection process, and accompanies inspectors on actual inspections. These supervisors also review a random number of reports from each inspector to assure they are done properly and cover all areas prescribed in the AWA regulations.

With our recently developed Animal Care data base, we are able to statistically monitor the field inspection process by determining how many and what type of violations are written by each inspector, the number of inspections conducted, and other useful information to more effectively assure the inspections are conducted properly and thoroughly.

Enforcement activities are carried out by a separate investigative and enforcement (IE) staff funded under the Animal and Plant Health Regulatory Enforcement line-item. Animal Care program officials refer alleged violations identified during inspections to our investigative and enforcement unit for investigation. Headquarters IE staff review the completed investigative reports, and initiate an appropriate action based on a number of factors including the gravity of the violation, prior history, and size of the business.

Less serious infractions may be settled with an official notice of warning, while more serious cases may be resolved at the Agency level through stipulated civil penalty agreements with the violator or through formal administrative action before an Administrative Law Judge. Stipulations allow alleged violators to pay a fine, have their license suspended, or both, in lieu of formal administrative proceedings. Cases that warrant formal prosecution undergo Departmental review for legal sufficiency prior to issuance of a formal administrative complaint. Formal cases may be resolved by license suspensions, revocations, cease-and-desist orders, civil penalties, or combinations of these penalties through administrative procedures. APHIS also uses innovative settlements where appropriate to encourage compliance. In innovative settlements, the Agency allows a portion of the civil penalty to be used by the licensee or registrant to provide training or make repairs and/or upgrades to facilities to help ensure future compliance with the Act.

Question. I have been informed that the Animal Welfare Information Center has received an appropriation of $750,000 to perform its activities without an increase in over a decade. It is also my understanding that more than 50 percent of the AWIC budget is transferred to the National Agricultural Library and Agricultural Research Service for overhead costs. Please explain why AWIC must provide such a large amount of its budget for AWI and ARS overhead costs.

Answer. The National Agricultural Library received an appropriation of $750,000 in fiscal year 1986 to support an information service at NAL. There have been no increases in the base appropriation since then and several mandated permanent reductions have resulted in an overall decrease in the original appropriation of about 9 percent. To clarify, NAL and ARS do not take 50 percent of the budget for overhead. ARS, however, applies a 10 percent across-the-board assessment for overhead to support the agency's overall program and administrative management activities. The remaining 90 percent is allocated directly to the AWIC and the other NAL program and administrative activities that support the AWIC.

CRANBERRY PURCHASES

Question. The fiscal year 2001 Act provided $30 million for the purchase of surplus cranberries. Please provide an update on those activities and please provide information in regard to how those funds have been directed toward the actual purchase of fruit (as directed by statute) and for the costs of processing (as has been reported).

Answer. As of May 16, 2001, AMS has purchased 32.7 million pounds of cranberry juice concentrate at a cost of $16.2 million. In addition, the agency has purchased 3.25 million pounds of dried cranberries at a cost of $5.5 mil., and 7.36 million pounds of canned cranberry sauce at a cost of $3.4 mil. The agency is currently offering to purchase 4.05 million pounds of cranberry juice at an estimated cost of $1.7 million. AMS buys processed cranberry products and does not track the cost of processing separately from the cost of the fruit.

AMS is committed to purchasing $30 million surplus cranberries as directed by the Act. However, purchases are dependent on USDA's ability to find sufficient outlets that can take the product. AMS is working directly with the Food and Nutrition Service in this effort.

Although some portion of the funds available must be spent on processing to procure product in a form that is acceptable to recipients, the Department has donated sucrose for use in the production of cranberry juice concentrate to maximize the amount of cranberries that are being purchased.

CONSERVATION CRP TECHNICAL ASSISTANCE

Question. The fiscal year 2002 budget includes an appropriated amount to cover the cost of technical assistance associated with the Conservation Reserve Program. Previous to the 1996 Farm Bill, mandatory funds were available for technical assistance in this regard, but imposition of the Section 11 cap by the authorizing committee created the funding difficulties resulting in your 2002 request. Since this problem is a direct result of action by the authorizing committee, why did the President not submit a request to the authorizing committee to strike the cap they imposed?

Answer. Many of the conservation programs funded by the Commodity Credit Corporation, such as the Conservation Reserve Program, expire with the 1996 Farm Bill. Discussions regarding the appropriate farm policy for the future are underway and will continue this year. The request for CRP technical assistance funding under the Conservation Operations account addresses the short-term needs for fiscal year 2002.

RURAL DEVELOPMENT RURAL COMMUNITY ADVANCEMENT PROGRAM

Question. EPA Administrator Christine Todd Whitman recently stated that one reason for reviewing the arsenic level standard for drinking water was her concern that since arsenic levels are more prevalent in individual private wells than public drinking systems, the Bush Administration did not want to take action that might force public systems to close and make Americans more reliant on private well sources of drinking water.

If this is the Administration's concern, why was there not a substantial increase in the budget to allow more Americans access to public water systems in rural areas?

Answer. The Administration's position is that these standards need to be examined based on the best science available and that they need to be realistic in terms of what can be achieved by communities that rely on a public drinking water sys-

tem. While USDA's water and waste disposal program certainly helps rural communities obtain clean and safe drinking water, most projects require these communities to pay a fairly substantial portion of the cost for both constructing and operating a system. Consequently, the level of funding for the program is only one of the considerations that needs to go into the decision on these standards.

Question. To what extent are arsenic levels a problem in rural areas, especially in areas where no public systems are now available?

Answer. A May 2000 study conducted by the U.S. Geological Survey found that about 10 percent of the samples it took had an arsenic level exceeding the World Health Organization 19s provisional guideline. The samples were taken in about 24 percent of U.S. counties.

Question. Please provide information on the backlog of applications for the water and wastewater loan and grants program.

Answer. As of March 2001, there were 1,445 applications for water and waste disposal loans, totaling about $2.2 billion, and 734 applications for water and waste disposal grants, totaling about $757 million.

RURAL HOUSING SERVICE

Question. Calculations based on USDA estimates received last year show that the average home under the Section 502 program is financed for just over $60,000. Is this calculation correct, and if not, what is the average amount of a direct loan, and a guaranteed unsubsidized loan, under the Section 502 Rural Housing Loan program?

Answer. Direct Section 502 loans averaged close to $65,000 for fiscal year 2000 and are estimated to average about $67,000 for 2002. Guaranteed loans, which are unsubsidized and tend to serve borrowers with more income than direct loan borrowers, averaged about $74,000 for 2000 and are estimated to average about $78,000 for 2002.

RURAL UTILITIES SERVICE

Question. Please provide information regarding the ability of rural electric providers to cope with increasing energy costs?

Answer. The President's energy task force report will address the root cause of the problems the Nation, including rural America, is experiencing due to increasing energy costs. The President has spoken repeatedly about his concerns for long-term solutions, including the development of additional power generating capacity. USDA's Rural Utilities Service (RUS) is already experiencing an increase in applications for generation projects. Demand side management is also necessary. RUS recently published proposed changes in its regulations to facilitate such action.

Question. What has been the effect of electric power deregulation on rural electric cooperatives?

Answer. Rural electric cooperatives with outstanding loans or loan guarantees from RUS are not regulated by the Federal Regulatory Energy Commission (FERC). However, they are impacted by FERC initiatives relating to the prices of electricity sold in wholesale markets, from which the cooperatives buy a portion of their power. Further, virtually all RUS borrowers are dependent upon transmission services to reach their customers. However, it appears that deregulation is not encouraging new providers to enter rural areas. In Pennsylvania, for example, 2 years after all the State's rural electric cooperatives elected to open their systems to full retail competition, not a single competitive provider has applied to serve these cooperatives.

Question. To what extent do rural electric providers have access to their own generation sources and for those that do not, are they being provided adequate access to other sources?

Answer. Nationwide, electric cooperatives, including rural electric cooperatives, generate about 55 percent of the power they need to serve their retail customers. The rest is obtained from wholesale markets. So far, the electric cooperatives have been able to secure the electricity they need to keep the lights on for their customers—but, in some instances, the purchases of peaking power on the spot market have come at a very high price.

Question. What percentage of Rural America has access to internet and broadband communications capabilities on a scale comparable to most urban areas in this country?

Answer. While an estimated 39 percent of rural households have some type of access to the internet, the quality of that access is, in many cases, far less then that in urban areas. For example, most users are able to connect to the internet at a minimum transmission rate of 28 kilobits per second, which is three times faster

than the capacity of many rural phone lines. Further, only 7.3 percent of rural household have access to broadband services.

HUMAN NUTRITION

Question. For many Americans, USDA nutrition programs are the only guarantee that they will have access to at least one nutritious meal a day. However, recent accounts of increased demands at food banks, questions about the quality of food children consume at school, and similar stories raise concern that some people, especially those most vulnerable, may be falling through the cracks.

Answer. The Department is keeping a close eye on the needs of the most vulnerable Americans, and we will take steps to help ensure that they have access to what they need to be properly nourished.

SCHOOL BREAKFAST START-UP GRANTS

Question. In my state of Wisconsin, I worked last year to help encourage schools to participate in USDA school breakfast programs as a way to help ensure that more children start their school day ready to learn. Can you please provide an update on how the Department is working with the State of Wisconsin on this program?

Answer. On February 12, 2001, FNS entered into a Grant Agreement with the Department of Public Instruction, the State agency that administers Child Nutrition Programs in Wisconsin. The Agreement was entered into pursuant to provisions in Public Law 106–387, the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act for Fiscal Year 2001, which directed the Secretary to provide Wisconsin with $500,000 for school breakfast startup grants in the State. Under the terms of the Agreement, the State agency will provide grants to eligible school food authorities to help cover costs associated with implementing a School Breakfast Program (SBP) in currently non-participating schools.

The grant funds may be used for any local level costs that are allowable, reasonable, and necessary for a school to implement the SBP and, therefore, extend program benefits to a greater number of eligible children. The Agreement will require the State agency and school food authorities receiving funds to obligate those funds no later than September 30, 2002. The State agency will report on the use of the funds quarterly and will submit annual project reports describing the activities accomplished using the funds. FNS has provided the State agency with guidance, when requested and remains available to provide any assistance that the State may require.

NUTRITIONAL VALUE OF ASSISTANCE PROGRAMS

Question. There has recently been a lot of publicity about the nutritional value of foods consumed by children, especially while they are at school. Would you please provide your views on the adequacy of the nutritional value children are receiving, especially while at school?

Answer. The Child Nutrition Programs offer children meals that are affordable, convenient, and consistent with the Dietary Guidelines for Americans. I know that nutrition education is a top priority of the Department and is incorporated into all of the nutrition assistance programs.

The results of two recent reports sponsored by FNS provide some insight into the adequacy of the nutritional value of children's diets. Children's Diets in the Mid-1990s: Dietary Intake and Its Relationship with School Meal Participation shows that on average, children's reported daily mean intakes of most vitamins and minerals exceed the Recommended Dietary Allowances. Only a small percentage of children met the dietary recommendations for intake of total fat, saturated fat, fiber, and sodium. The school meal programs play a substantial role in the diets of school-aged children. Students who participate in both the school lunch and breakfast programs are more likely to meet the dietary standards for a variety of vitamins and minerals than students who participate in neither program. Participants also have a higher mean intake, at school and over 24 hours, of total fat, saturated fat, fiber, and sodium.

The School Nutrition Dietary Assessment Study-II indicates that the average meals offered in the National School Lunch Program and School Breakfast Program are both high in nutritional quality and well-balanced across a number of key nutrients. Since the implementation of the School Meals Initiative for Healthy Children in 1995, schools have significantly reduced the amount of fat and saturated fat in school meals, although the average school lunch still falls short of meeting the Dietary Guidelines for Americans recommendations for fat and saturated fat. These im-

provements have been accomplished while maintaining the overall nutrient contribution of the school meals.

SENIORS' FARMERS MARKET

Question. Last year, USDA developed a special farmers market program to help make fresh produce available to senior citizens. The program not only provided special benefits to seniors, it also helped provide an additional outlet for farmers products. Wisconsin is one of the states that is participating in this program. However, you have eliminated this program in the fiscal year 2002 budget. Please provide an overview of how this program will operate this year and explain why you did not choose to continue it next year.

Answer. The Seniors Farmers' Market Nutrition Pilot Program (SFMNPP) operates in 36 locations—30 States, 5 Indian Tribal Organizations and the District of Columbia. The program provides resources in the form of fresh, nutritious, unprepared, locally grown fruits, vegetables, and herbs from farmers' markets, roadside stands and community supported agriculture programs to low-income seniors. It also increases the domestic consumption of agricultural commodities by developing or aiding in the expansion of domestic farmers' markets, roadside stands, and community support of agriculture programs.

The 36 locations are: Alabama, Alaska, Arkansas, California, Chickasaw Nation (Oklahoma), Connecticut, District of Columbia, Florida, Grand Traverse Band of Ottawa and Chippewa Indians (Michigan), Hawaii, Illinois, Inter-Tribal Council of Michigan, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi Band of Choctaw Indians, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Osage Tribal Council (Oklahoma), South Carolina, Tennessee, Vermont, Virginia, Washington, West Virginia, and Wisconsin. A summary of the highlights of each program is attached.

As you know, funding for the SFMNPP comes from the Commodity Credit Corporation and does not require an appropriation. The SFMNPP was funded as a pilot program by the previous Administration. No decision has been made by the current Administration as to the continuation of the pilot program beyond fiscal year 2001.

THE EMERGENCY FOOD ASSISTANCE PROGRAM (TEFAP)

Question. It has come to my attention that food banks and other food distribution agencies have or may have to turn back donated food items because they do not have adequate resources for transportation and distribution costs. Please provide information on why this problem has suddenly become so serious.

Answer. The flow of USDA commodities available to the Emergency Food Assistance Program (TEFAP) increased significantly in fiscal year 2001. This increase was due in part to the enactment of the Agricultural Risk Protection Act of 2000 (Public Law 106–224).

In addition to the $100 million worth of commodities purchased in fiscal year 2001, it is estimated that the bonus commodities that will be delivered to TEFAP State agencies in 2001 will exceed $225 million. Included in this amount is the majority of bonus fruits and vegetables purchased for domestic consumption mandated by Public Law 106–224, the Agricultural Risk Protection Act of 2000. The Act required the Secretary to purchase specialty crops that experienced low prices during the 1998 or 1999 crop year. These commodities are provided in addition to commodities donated by other sources and make up a portion of the total amount of food distribution through the TEFAP distribution network.

Question. Are there available resources within USDA to help these local organizations?

Answer. All of the $45 million in TEFAP administrative funds appropriated under the 2001 appropriations bill has been allocated to State agencies, which in turn allocate most of these funds to local organizations. Although available resources are very limited, the Department is in the process of examining the possibility of providing additional funding to support the distribution of TEFAP commodities.

Question. What funding would be necessary to ensure that local agencies have the necessary means to transport and distribute food donated through TEFAP?

Answer. The flow of USDA commodities available to the Emergency Food Assistance Program (TEFAP) increased significantly in fiscal year 2001, and this has led a number of States to express concern about administrative funding. All but a few of the 25 or so States responding to an informal survey report a shortage of administrative funding. The majority complain of serious strains on transportation, storage, or distribution. About a quarter of respondents have had to become more particular about which foods they will take, selecting only the most popular commodities for

fast turnover; and a quarter also report that they will not be able to take any more bonus foods this year, citing lack of administrative funds.

WIC PROGRAM

Question. The President's budget proposes funding for the WIC program at a level intended to serve 7.25 million people, the same number of people the Administration expects to serve in fiscal year 2001. What is the expected carryover of funds into fiscal year 2002 based on USDA's most recent data?

Answer. The budget estimates that about $136 million from fiscal year 2001 will be available for use in fiscal year 2002. The actual amount is dependent on participation and costs in fiscal year 2001. We believe the $136 million is a good estimate of the effects of costs and participation in fiscal year 2001.

Question. What has been the historical relationship been between WIC participation and the unemployment rate? Do you believe there is a correlation between these two indicators?

Answer. I believe that unemployment does effect income eligibility. However, income eligibility is only one of the eligibility criteria used for participation in the WIC Program.

For most of WIC's history, participation was constrained by funding, and so did not respond to economic factors such as the unemployment rate. Therefore, it is correct that for most of WIC's history, participation did not tend to increase when unemployment went up, nor decrease when unemployment went down.

In 1997, WIC participation peaked at 7.4 million. After this, despite the absence of a clear funding constraint, participation fell slightly. It may be reasonable to assume that at this point, participation changes were more directly related to economic conditions. While the data from 1997 to 2001 suggests a relationship between unemployment and participation, these data are not adequate to permit construction of a model of that relationship that would enable us to "tie" changes in WIC participation to changes in the unemployment rate with any reasonable degree of accuracy.

It should also be noted that analyses of participation should consider factors other than economic changes that could affect participation decisions (eg., changes in program rules, welfare reform, etc.).

Question. Was the Administration's budget forecasts that the unemployment rate will rise in fiscal year 2002 to 4.6 percent taken into consideration when formulating the fiscal year 2002 budget for the WIC Program?

Answer. Although data from 1997–2001 suggest a positive relationship between unemployment and participation, these data are not adequate to permit construction of a model of that relationship that would enable us to "tie" changes in WIC participation to changes in the unemployment rate with any reasonable degree of accuracy. Such a model would be needed in order to factor changes in the unemployment rate into budget requests for WIC. The President's budget was constructed to maintain projected average fiscal year 2001 participation of 7.25 million.

Question. Is it the view of the Administration that if WIC participation demands increase as a result of higher levels of unemployment, adequate resources should be made available to cover the increased program demand?

Answer. The Administration's fiscal year 2002 request was constructed to maintain projected average fiscal year 2001 participation of 7.25 million. There are currently no waiting lists for the WIC program and, at present, we believe that the President's budget request for fiscal year 2002 is sufficient to continue to meet demand for the WIC program. However, we are aware that substantial changes in economic conditions may effect demand for the program. We plan to monitor the situation closely, and work with Congress to ensure that the program is funded at an appropriate level.

Question. Please provide an update on WIC referral services and, in particular, the status of the Presidential Memorandum on the subject of childhood immunization.

Answer. USDA is working with the Centers for Disease Control and Prevention to implement the directives outlined in the Executive Memorandum. A partnership composed of representatives from the National Association of WIC Directors, American Academy of Pediatrics, Association of State and Territorial Health Officials, Association of Immunization Managers, and Every Child By Two is providing guidance and assistance to implement current and future WIC immunization linkages to meet the directives of the Executive Memorandum. A working group of this partnership is finalizing a National strategic plan to improve immunization coverage levels of children participating in WIC.

A draft policy memorandum, written in collaboration with partners, was distributed to partners and State WIC agencies for comment in February 2001. The policy

memorandum outlined procedures for immunization screening and referral in the WIC Program, as directed by the Executive Memorandum. In response to comments, the policy memorandum is being redrafted and will be issued in June 2001.

CHILD AND ADULT CARE FEEDING PROGRAM

Question. Section 101 of Public Law 106–554, Division B, Title I expanded the eligibility criteria for participation in the Child and Adult Care Feeding Program (CACFP). Please provide information regarding USDA implementation of this provision including the number of CACFP providers and program beneficiaries have been made eligible under this new criteria.

Answer. The Department issued its implementation memorandum governing these expanded eligibility requirements to all CACFP State administering agencies on January 19, 2001. This memorandum laid out the basic eligibility requirements established in Public Law 106–554, contained guidance necessary for States to administer the program in the newly-eligible centers and reminded States of the importance of acting quickly to seek out, train and approve eligible centers. On February 26, 2001, the Department followed up the initial guidance with additional guidance based on questions received from States during the implementation process.

The Department has estimated the total number of potentially eligible centers to be approximately 4,600 and the number of children enrolled in those centers to be about 323,600. While we do not have a formal vehicle for collecting data on the number of centers actually participating under the expanded eligibility criteria, we do have anecdotal information suggesting that this number is considerably less than the eligible universe—probably no more than 130. State agencies are dealing with these eligibles in a number of different ways. Some are actively recruiting centers while others have done relatively little in this regard. For the most part, these States believe that the effort required to approve, train and monitor an entirely new group of centers which may be on the program for a relatively short period of time is not the best use of administrative resources, given the demands put on them under the CACFP Management

Question. Does the Bush Administration support making this change permanent and if not, please explain.

Answer. The President's fiscal year 2002 budget request did not include funding for extending this provision beyond the current fiscal year. However, we have not taken a final position on this issue and will not do so until the Food, Nutrition and Consumer Services policy team is in place.

Question. The Senate Report to accompany Public Law 106–387 includes language urging FNS to provide technical assistance and guidance to states that do not maximize the number of children served under CACFP and to pool certain Title XX funds with CCDBG funds to meet the technical requirement of current law. Please provide information regarding implementation of this directive.

Answer. Over the past several years, the Department has provided guidance and technical assistance to State agencies relative to the pooling of Title XX funding. Initial guidance was issued to all Child and Adult Care Food Program State administering agencies on July 6, 1999. Copies of that guidance have also been provided to the Congress. That guidance was also re-issued on April 6, 2000.

AGRICULTURAL TRADE DAIRY EXPORT INCENTIVES PROGRAM

Question. You have stressed the importance of international trade as a means to improve net farm income. I agree that we should pursue an aggressive strategy with our trading partners and we must remain vigilant that our agricultural trade interests are not compromised by long-term objectives of other sectors of the U.S. economy here at home.

One of the programs available to you now is the Dairy Export Incentives Program (DEIP). Over the past few years, significant quantities of U.S. dairy producers were allocated for shipment under DEIP, but for a number of reasons, those quantities were not shipped. Later, the U.S. dairy industry sought to have those quantities reallocated for shipment under DEIP, but were told by the USDA that once allocations were issued, they could not be reissued regardless of whether they had been shipped or not. In explanation, we were told that during negotiations with our trading partners an agreement was reached that precluded reallocation under DEIP. However, in spite of our repeated requests, no documentation was provided that expressly laid out this agreement.

Do you believe that the practice of not reallocating unused DEIP quantities if the initial allocation was not shipped is consistent with U.S. trade objectives?

Answer. In response to a request included in the conference report accompanying the fiscal year 2001 Agriculture Appropriations Bill, the Department provided the Committees on Appropriations a report outlining USDA's position not to reallocate awarded but unshipped dairy product tonnage under the DEIP. The report concluded that authorizing the export of awarded but unshipped dairy product tonnage from as far back as 5 years ago would be inconsistent with the established U.S. methodology for reporting export subsidies to the WTO and would likely be viewed by our trading partners as an attempt to circumvent our subsidy reduction commitments. As the report indicated, such an action would provide limited economic benefit for U.S. dairy farmers.

We are now engaged in negotiations in the WTO to further liberalize trade in agricultural products, including the elimination of export subsidies. Taking steps that would be viewed by many as a circumvention of our current export subsidy commitments would be detrimental to our efforts in those negotiations. For these reasons, the reallocation of prior-year unshipped DEIP allocations would be inconsistent with U.S. trade objectives.

Question. Do you intend to continue the practice of not reallocating DEIP quantities under these circumstances?

Answer. With respect to the reallocation of quantities from previous years, no change of policy is anticipated. However, at this time, the Department is reviewing whether or not a modification of program operations for DEIP could be made to allow for the re-announcement of canceled tonnage within the confines of an allocation year. Preliminary discussions have already taken place with the industry.

Question. If you do intend to continue this practice, will you please provide to the Committee a copy of the express agreement that requires you to do so?

Answer. As indicated above, the Department is currently reviewing its allocation and reallocation procedures.

MILK PROTEIN CONCENTRATES (MPC'S)

Question. Dairy producers in Wisconsin and across the country are becoming increasingly alarmed by the level of MPC's being imported into the U.S. Is it the view of the Bush Administration that MPC imports are not subject to WTO requirements or should they be included as part of this country's dairy import strategy?

Answer. Milk Protein Concentrates are subject to a U.S. tariff commitment in the WTO to limit the import duty to 0.37 cents per kilogram. At the time of the Uruguay Round, this product was specifically provided for in our tariff schedule and was not subject to any import quotas of the type that were converted to tariff rate quotas (TRQs) under that agreement. Consequently, MPCs were not included in our dairy TRQs. The United States expects other countries to adhere to their international market access commitments just as other countries expect the United States to comply with its commitments. Changes in these commitments would require agreement with affected countries on compensation. Consequently, changes to these international obligations must be considered carefully, within the context of our overall World Trade Organization commitments.

Question. Please provide the Committee with information regarding the levels of MPC imports, the countries from which those imports originate, and the U.S. market use of these products.

Answer. Following are two tables showing 1999 and 2000 MPC imports by source and the monthly pattern of MPC imports through February 2001. Please note that following the pattern of the GAO report, these tables exclude the casein product also called milk protein concentrate. If that product were included it would add another 9,800 tons to the 1999 total and another 11,900 tons to the 2000 total.

According to the monthly data, starting in August 2000, the level of MPC imports began to decline, largely mirroring the upturn in international prices for nonfat dry milk (NDM). The strong upturn in international prices for NDM appears to have sharply reduced the incentive to produce and export MPCs.

We have no quantitative data as to what products are manufactured using imported MPCs. The GAO study suggested a rather wide range of products with the higher protein MPCs directed towards health and nutrition foods.

[The information follows:]

Commodities Imported and Area/Countries of Origin		Cumulative to date				December			
		Quantity		Value		Quantity		Value	
		01/1999–12/1999	01/2000–12/2000	01/1999–12/1999	01/2000–12/2000	1999	2000	1999	2000
MK PC,WHT/NS,NES	M0404901000 MT								
North America	01								
Canada	1220	3,420	2,234	7,753,190	5,063,093	386	0	880,494	0
Total North America		3,420	2,234	7,753,190	5,063,093	386	0	880,494	0
South America	4								
Argentina	3570	0	54	0	240,098	0	0	0	0
Total South America		54	0	240,098	0	0	0	0	
European Union	05								
Sweden	4010	98	0	187,154	0	0	0	0	0
Denmark	4090	80	961	136,116	1,892,826	0	24	0	52,812
United Kingdom	4120	66	101	137,345	222,319	40	0	75,838	0
Ireland	4190	9,775	6,917	31,949,864	21,531,018	1,598	137	5,634,161	646,243
Netherlands	4210	4,560	5,193	7,937,645	10,377,645	334	18	590,883	62,057
Belgium-Luxembourg	4230	19	180	33,026	253,500	0	0	0	0
France	4270	339	931	894,105	2,408,474	100	60	324,416	239,478
Germany	4280	5,261	7,018	10,242,886	14,466,304	315	53	621,177	135,063
Total European Union		20,197	21,300	51,518,141	51,152,086	2,387	271	7,246,475	1,135,653
Other West Europe	06								
Switzerland	4410	52	1,229	89,264	2,587,046	0	215	0	450,632
Total Other West Europe		52	1,229	89,264	2,587,046	0	215	0	450,632
Eastern Europe	08								
Hungary	4370	416	1,267	1,713,861	4,642,414	58	166	216,000	394,285
Poland	4550	875	59	1,543,932	175,067	95	0	241,311	0

Commodities Imported and Area/Countries of Origin		Cumulative to date				December			
		Quantity		Value		Quantity		Value	
		01/1999–12/1999	01/2000–12/2000	01/1999–12/1999	01/2000–12/2000	1999	2000	1999	2000
Total Eastern Europe		1,291	1,326	3,257,793	4,817,481	153	166	457,311	394,285
Former Soviet Union	07								
Estonia	4470	300	80	577,282	161,275	40	0	70,191	0
Lithuania	4510	49	168	205,758	316,239	17	0	71,379	0
Total Former Soviet Union		349	248	783,040	477,514	57	0	141,570	0
Oceania	14								
Australia	6020	4,967	6,936	13,853,645	22,122,035	468	16	1,633,175	32,84E
New Zealand	6140	14,601	19,352	44,998,189	66,387,470	1,741	2,294	4,502,027	6,978,951
Total Oceania		19,568	26,287	58,851,834	88,509,505	2,210	2,310	6,135,202	7,011,795
Grand Total		44,877	52,677	122,253,262	152,846,823	5,192	2,962	14,861,052	8,992,365

MONTHLY PRECEDENCE REPORT

Month	1998	1999	2000	2001
Quanity (In Metric Tons)				
JAN	1,709	2,664	5,337	2,598
FEB	1,578	2,992	5,731	2,988
MAR	1,711	3,335	5,957	.....
APR	1,274	2,642	3,693	.....
MAY	1,743	3,082	5,938	.....
JUN	2,329	4,256	4,846	.....
JUL	3,033	3,940	5,242	.....
AUG	2,805	3,588	2,992	.....
SEP	3,975	4,179	2,684	.....
OCT	3,294	3,684	3,744	.....
NOV	2,650	5,322	3,549	.....
DEC	2,828	5,192	2,962	.....
Year Total	28,929	44,877	52,677	.....
VALUE (In Dollars)				
JAN	6,306,753	6,785,701	14,210,345	.....
FEB	5,655,386	7,555,518	16,937,948	.....
MAR	6,404,701	10,326,470	17,018,990	.....
APR	5,537,792	8,063,621	9,990,919	.....
MAY	6,761,583	8,675,193	16,293,460	.....
JUN	8,725,857	10,896,440	14,447,008	.....
JUL	10,281,507	10,473,084	14,842,574	.....
AUG	7,578,441	9,140,663	8,836,276	.....
SEP	11,490,923	11,642,285	8,467,512	.....
OCT	10,856,055	10,099,492	10,948,316	.....
NOV	8,688,697	13,733,743	11,861,106	.....
DEC	10,845,303	14,861,052	8,992,369	.....
Year Total	99,132,998	122,253,262	152,846,823	.....

Question. Please provide an estimate on the level to which these imports are affecting U.S. dairy producer prices.

Answer. It is our understanding that imported MPCs primarily substitute for NDM as a source of protein in beverage and food processing uses. MPC imports would therefore to some extent displace surplus NDM into CCC inventories as provided for under the dairy price support program. Currently and in recent years, the CCC purchase price places a floor under domestic NDM prices. Therefore, we believe imported MPCs have limited effect on U.S. dairy producer prices at present.

Question. Please provide information regarding potential food safety and animal health-related issues as they pertain to MPC imports, including contamination through the packaging or shipment of such products.

Answer. The public health aspects of MPC imports and use come under the purview of the Food and Drug Administration, but so far as we are aware no problems have been identified, whether through direct use of through packaging or shipment.

Animal health aspects of imported MPCs and of dairy products generally come under the responsibility of APHIS. As you are aware, APHIS has greatly stepped up its operations to guard against Foot and Mouth Disease (FMD) contamination from dairy and animal product imports generally from affected countries. We are confident the measures implemented by APHIS are providing adequate protection against FMD contamination and other disease threats to U.S. animal agriculture.

SANCTIONS

Question. What is the view of the Bush Administration in regard to making it easier for U.S. farm products to gain access to markets in Cuba?

Answer. The policy with regards to exporting farm products to Cuba was spelled out in the Trade Sanctions Reform and Export Enhancement Act of 2000. Among

other things, the legislation partially eases 40 years of trade sanctions for agricultural products by allowing U.S. companies to export agricultural products to Cuba, including agencies of the Cuban government, subject to certain restrictions. These restrictions generally revolve around the prohibitions on export financing by U.S. banks and the prohibition on any form of government assistance to facilitate U.S. exports. U.S. tourism to Cuba remains prohibited as does the prohibition on any imports from Cuba. The Bureau of Export Administration at the Department of Commerce is working diligently to finalize the new regulations required to implement the new policy.

Question. If agricultural trade restrictions with Cuba were relaxed, which U.S. farm commodities would primarily benefit?

Answer. Cuba currently imports roughly $600 million worth of agricultural products a year. If agricultural trade restrictions were completely relaxed and Cuba were willing to import from the United States solely on the basis of sound economics, the United States would quickly become a significant supplier of wheat, feedgrains, rice, vegetable oil, beans, meat and dairy products. Cuba cannot produce enough of these products to meet its domestic needs and must source them from competitors that we believe would have a difficult time being competitive with U.S. offerings.

Question. Is it the view of the Bush Administration that free and open trade is an important step toward economic recovery of the farm sector and if so, should Cuba not be part of that strategy?

Answer. The Administration absolutely views free and open trade as vital to the economic interest of America's agricultural producers. It is for this reason that it is pursuing further multilateral trade liberalization through the WTO negotiating process as well as through regional pacts such as the FTAA. However, as was recently affirmed by the democratically elected Heads of State in the Final Declaration from the Summit of the Americas, regional integration in the hemisphere requires respect for democratic values. The rule of law and strict respect for the democratic system are, at the same time, a goal and a shared commitment and are an essential precondition of participation in the Summit of the Americas process. Yes, we look forward to the day when free and open trade is possible between the U.S. and Cuba, not just for agricultural products but for all products. However, the Cuban government must change its policies and embrace the democratic traditions referred to in the Final Declaration.

HUMANITARIAN FOOD ASSISTANCE

Question. Although the USDA 2002 budget for the appropriated level of Public Law 480, Title II is the same as fiscal year 2001, previous year balances will not be available in 2002, resulting in an overall program level reduction. This is occurring at time when world wide demand, especially in areas like Africa, are growing. Why does the USDA budget for fiscal year 2002 not provide, at least, the fiscal year 2001 program level for Public Law 480, Title II?

Answer. In order to meet the goal of restraining the growth in spending, some programs were continued at current funding levels. These include the Public Law 480 foreign food assistance programs, for which budget authority is maintained at the same level provided by Congress in 2001.

Question. Does the Department intend to utilize Section 416(b) authorities in fiscal year 2002 as a means to provide humanitarian food assistance? If not, please explain.

Answer. Our ability to provide donations of food commodities under the authority of section 416(b) in fiscal year 2002 will be determined in large part by the availability of domestic commodity surpluses. The domestic supply situation will not be known until the fall, and at that point the Administration can be expected to make a decision on the level and extent of section 416(b) donations in 2002.

Question. Does the Department support the international school lunch program as envisioned by former Senators McGovern and Dole? To what extent should the United States be a participant in this effort?

Answer. The Department is in the process of carrying out the Global Food for Education Initiative (GFEI) on pilot basis. Once the pilot program is completed and evaluated, the Administration will be in a position to decide whether the GFEI should be continued and on what scale.

With respect to U.S. participation, it is probably vital to any global school feeding effort as envisioned by the Senators. As you probably know, the United States is the world leader in providing global food assistance, and our leadership in such a global effort would be needed as a catalyst to encourage other countries to participate.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

WIC

Question. Please clarify the budget's treatment of funding for the Supplemental Nutrition Program for Women, Infants and Children (WIC). The budget indicates an increase of about $94 million for WIC compared to fiscal 2001. However, other budget documents indicate an increase of $44 million in outlays, or according to the USDA budget summary, an increase of $49 million in program level.

In any case, I am concerned that the requested amount is not adequate to keep up with the needs of the program's beneficiaries, especially if unemployment levels reach those assumed in the budget itself. I have received an estimate that as a result some 100,000 to 200,000 eligible women, infants and children who would receive assistance if funding were adequate will not receive assistance.

For the past several years, Congress, working with the Administration, has provided funding to allow WIC to serve essentially all eligible women, infants and children. It very strongly appears that the current budget proposal would back away from this commitment. Will you provide an explanation of the budget request for WIC funding and the adequacy of that request to serve all eligible WIC recipients?

Answer. The Administration's fiscal year 2002 request was constructed to maintain projected average fiscal year 2001 participation of 7.25 million. There are currently no waiting lists for the WIC program and, at present, we believe that the President's Budget request for fiscal year 2002 is sufficient to continue to meet demand for the WIC program. However, the Department is aware that substantial changes in economic conditions may effect demand for the program. We plan to monitor the situation closely, and work with Congress to ensure that the program is funded at an appropriate level.

Question. Does the budget figure for WIC take into account the impact of the assumptions in the budget regarding unemployment levels?

Answer. Although data from 1997–2001 suggest a positive relationship between unemployment and participation, these data are not adequate to permit construction of a model of that relationship that would enable us to "tie" changes in WIC participation to changes in the unemployment rate with any reasonable degree of accuracy. Such a model would be needed in order to factor changes in the unemployment rate into budget requests for WIC. The President's budget was constructed to maintain projected average fiscal year 2001 participation of 7.25 million.

Question. Will you commit to working with this Committee to make sure we keep our longstanding commitment to WIC?

Answer. The Department plans to closely monitor WIC Program participation and economic conditions during the course of the year and work with Congress to ensure that the program is funded at an appropriate level.

FOREIGN MARKET DEVELOPMENT (COOPERATOR) PROGRAM

Question. I am quite concerned about the level of funding in the budget for the Foreign Market Development (Cooperator) Program. In the past there have been carryover funds that helped to maintain the resources to support this important program. However, it does not appear that those carryover funds are available for fiscal 2002.

Please describe the resources that will be available to the FMD (Cooperator) Program in fiscal 2002 under the proposed budget and explain whether with this level of resources it will be possible to maintain fully the current programming levels for the program.

Answer. The CCC budget for fiscal year 2002 includes $27.5 million for the FMD program, the same level as fiscal year 2001. We believe that with these funds, coupled with available carryover balances, current marketing plan levels can be maintained through fiscal year 2002.

MICROBIOLOGICAL PERFORMANCE STANDARDS

Question. I want to commend the Administration for moving forward with the appeal of the *Supreme Beef case.* I am sure you were offered many different opinions on whether USDA should appeal.

As I have said to you before, we need to have the most effective and scientifically sound microbiological performance standards possible. We need to continue to improve the standards that we have. But those standards absolutely must be enforceable. I have no doubt we can come up with better standards that all sides can support. However, some are fundamentally opposed to having any enforceable performance standards.

Is the decision to appeal the Supreme Beef decision a reflection of the Department's commitment to enforcing its microbiological performance standards?

Answer. The notice of appeal by USDA of Supreme Beef Processors, Inc. v. United States Department of Agriculture was filed on September 8, 2000. Under this Administration, required filings continue to be made by USDA and the appeal is moving forward.

Question. Do you support the current Salmonella performance standard?

Answer. The Salmonella performance standards were based on the best available estimates of national product prevalence (i.e. the percentage of product with Salmonella). The prevalence of Salmonella on raw meat and poultry products continues to decline by as much as half on raw chicken, for example. CDC reports sustained reductions in foodborne illness as well.

As you know, language accompanying the 2001 Agriculture Appropriations Act directed the Food Safety and Inspection Service to ask the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) and the National Research Council of the National Academy of Sciences (NAS) for an evaluation of the role of scientifically determined criteria, including microbiological criteria, in the production and regulation of meat and poultry products. The information from these reports combined with the best available science will guide the Department's decisions on the Salmonella performance standards.

Question. Do you have plans for revising it?

Answer. USDA will continually review the performance standards to ensure that all food safety policies are based on sound scientific principles. Further, language accompanying the 2001 Agriculture Appropriations Act directed FSIS to ask the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) and the National Research Council of the National Academy of Sciences (NAS) for an evaluation of the role of scientifically determined criteria, including microbiological criteria, in the production and regulation of meat and poultry products. FSIS is discussing the initiation of a study with NAS. Also, FSIS has also asked the Micro Committee to review and evaluate the Salmonella performance standards. Specifically, the NACMCF will advise FSIS on the use of indicator organisms as opposed to a specific pathogen, like Salmonella; whether it is scientifically appropriate and wise from a public health standpoint to incorporate regional and seasonal variations into performance standards; how quantitative baseline prevalence data should best be used to develop or modify performance standards; and what other key considerations are involved in using risk assessments to develop performance standards.

NATIONAL ANIMAL DISEASE CENTER: ARS AND APHIS FACILITIES AT AMES, IOWA

Question. The Appropriations Committee in the fiscal 2001 Appropriations measure required a report on the need and options for moving ahead with this project that was due on March 1. I understand that the draft report just went to OMB on April 20.

Clearly, the entire nation has become keenly aware of the costs and problems that can occur because of animal diseases. We can have great damage to animal agriculture and in some circumstances we face real risks to human health as well.

A highly respected international peer review group that USDA created to look at the draft report indicated that the need to move forward was urgent and should be considered an emergency, that the inadequacy of some of the facilities is astounding, that there is severe vulnerability, that current studies are restricted, and that the status quo is not an option. The group also indicated that the improvements would facilitate United States animal exports—which could presently be at some risk because of the poor quality of the existing facilities.

The group fully endorsed the draft plan's finding that the merging of the National Animal Disease Center and APHIS' Center for Veterinary Biologics and the National Veterinary Services Laboratories was the preferred option.

Will you give your personal attention to completing and releasing the required report as soon as possible and, more importantly, will the Administration support the work that is necessary at Ames, Iowa

Answer. The report, which was due March 1, 2001, was finally transmitted to the Congress on May 25, 2001. Delays were incurred in completing the report since the report dealt with major animal research and diagnostic facility needs of the Agricultural Research Service (ARS) and the Animal and Plant Health Inspection Service (APHIS). The report was devised through a series of meetings and reviews between the two agencies as well as consultants in Washington, D.C. and in Ames, IA. The report provides for several alternative plans ranging in cost from $430 million to $548 million.

LISTERIA

Question. Earlier this year, USDA published a proposal to require ready-to-eat meat and poultry processing plants to test for Listeria species in their plants. The rule would require plants producing hot dogs and deli meats to perform Listeria testing; however, the testing would be so infrequent that its value would be minimal. Plants would test for Listeria only one to four times a month, despite the fact that a lot of product can be produced during that time. This testing frequency is significantly less than that which many processors voluntarily follow today. Is one to four tests per month adequate to assure control of Listeria?

Answer. As part of the rulemaking process, FSIS has specifically requested public comment on the proposed testing frequencies. FSIS has held a scientific conference and a public meeting to discuss the proposed provisions, especially those that would require certain establishments to conduct environmental testing for Listeria.

FSIS also presented the proposed testing requirements and related scientific issues to the National Advisory Committee for Microbiological Criteria for Foods (NACMCF) for review. FSIS has extended the comment period for the proposed rule for 60 days to incorporate issues raised at a technical conference and public meeting on the proposed rule held May 8–10, 2001, here in Washington.

Question. Is more testing necessary to rapidly identify when plants are not controlling Listeria?

Answer. As part of the rulemaking, we encourage the industry and the public to provide any available information on alternative testing protocols that FSIS should consider in developing a policy for controlling Listeria contamination in ready-to-eat meat and poultry products.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

Question. I see that the Rural Utilities Service budget has been cut by $164 million for fiscal year 2002. This is cause for concern to those of us who represent rural America.

Let me give you just one example: Many rural areas have slow Internet service and need help achieving high-speed, broadband Internet access. It's highly unlikely that the private sector is willing to invest funds to bridge this digital divide. The Rural Telephone Bank program is the logical tool for meeting this need, but the Administration has eliminated this program. Don't you agree that high-speed broadband Internet access is crucial to any region's economic viability?

Answer. I certainly agree that rural America needs to have access to the Internet in order to share in the benefits of our information-oriented economy. Some rural areas already have such access, however, in general rural areas do not have the same access as many urban areas.

Question. If you do agree, isn't it necessary for USDA to continue to provide funding for the Rural Telephone Bank?

Answer. The Rural Telephone Bank (RTB) is an important source of funding for telecommunications. However, it is not necessary for USDA to continue to provide the financing for the RTB to make loans. Current law requires that the RTB be privatized and that process has already begun. The Administration's budget proposal to not provide the financing for RTB loans is intended to accelerate the privatization process. The RTB has the ability to obtain financing from the private sector.

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

EMERGENCY RESERVE FUND

Question. The Emergency Reserve Fund only provides $5.6 billion for fiscal year 2002. And the Contingency Reserve Fund pits farm aid against Medicare, Social Security and defense spending needs. How is relying on the reserve funds a responsible method for ensuring our farmers get the support that they need?

Answer. In the long run, the better way to ensure that producers get the appropriate support is to develop improved ongoing programs which eliminate the necessity to rely heavily on year-to-year ad hoc emergency assistance. The improvements in crop insurance programs made by the Agricultural Risk Protection Act of 2000 was a step in that direction. In any case there is a likelihood that some, as yet hard to estimate, level of additional emergency assistance may be needed this year and/or next year. The budget, at least, attempts to recognize and allow for this contingency by identifying the Contingency Reserve. This is preferable to completely ignoring the possibility of emergency spending needs as has been done in some prior

years. As for the $5.6 billion Emergency Reserve Fund for coping with major natural disasters, it is based on historical data and should be adequate for most circumstances for the disaster relief and related programs it addresses.

VALUE-ADDED COOPERATIVE FUNDING

Question. The Rural Business-Cooperative Service implemented a new grant for value-added cooperatives this year. These Value-Added Agricultural Product Market Development Grants have been popular. In Illinois, we have producers who want to form ethanol co-ops and producers who want to form the first farmer-owned pork processing plant in the country. However, there is no funding provided for these grants in the fiscal year 2002 budget. Will the Administration support additional funding for these grants?

Answer. The Value-Added Agricultural Product Market Development Grant program was authorized by the Agricultural Risk Protection Act of 2000. That Act also provided funding for the program, which is why there is no discretionary funding request for funds in the President's 2002 budget.

RURAL ECONOMIC AREA PARTNERSHIP

Question. The Southeastern Illinois Regional Planning and Development, the Greater Wabash Regional Planning, and the Southern Five Regional Planning and Development Commissions are seeking a Rural Economic Area Partnership (REAP) Zone designation for a 17-county area in Southern Illinois. I strongly support their request. When will USDA review this application/request and render a decision? Has the Department designated a staff person to work with these Illinois groups to compile the necessary information and offer technical assistance?

Answer. USDA's Rural Development Illinois State Office has been working with the three aforementioned planning commissions in preparing an application for a REAP zone designation for Southern Illinois. However, to date, no formal application has been submitted. Once an application is received, Dr. Norman Reid will serve as USDA's staff contact.

FOOD AID/DONATIONS

Question. Last year, I supported a provision to use $25 million worth of surplus commodities in the section 416(b) program for food aid, or to be monetized for development projects, for communities heavily impacted by AIDS. Could you tell me what progress USDA has made in disbursing these funds? What kind of projects have PVOs and the World Food Program suggested and where?

Answer. Nine separate proposals with an HIV/AIDS component have been approved for commodity donations under section 416(b) authority this fiscal year. The total estimated cost of these proposals is just over $21 million.

Eight of the approved programs are in sub-Saharan Africa, and the ninth is in eastern Europe. Two will be implemented by the World Food Program, and seven by private voluntary organizations. HIV/AIDS education, prevention, and related feeding or assistance programs are included among those approved. Program agreements with the cooperating sponsors are currently being developed, and the programs can move forward once the agreements are signed.

Question. I understand that the USDA plans to review recent donation activities under the section 416(b) program. As we see how this AIDS program progresses, I'd like to work with you on finding a more sustainable source of funding.

Answer. The Department is always willing to assist in whatever way we can.

Question. There is a bipartisan, bicameral interest in authorizing an international feeding initiative proposed by Ambassador George McGovern and Senator Bob Dole. I will be joining my colleagues Senators Harkin and Leahy in introducing legislation soon to authorize this initiative. Will the Administration support this proposed McGovern-Dole feeding initiative, and support funding for the program?

Answer: The Department is in the process of carrying out the Global Food for Education Initiative (GFEI) on a pilot basis. Once the pilot program is completed and evaluated, the Administration will be in a position to decide whether GFEI should be continued and on what scale. With respect to specific legislation authorizing the initiative on a permanent basis, the Administration has not yet developed a position.

Question. The Administration currently is implementing the Global Food for Education Initiative, a pilot of an international feeding program. The program is funded by $300 million for fiscal year 2001. I am concerned that the lag time between funds from the pilot program and finding funds for the legislation will be disruptive. Is the Administration willing to support short-term funding so as to minimize disruption to implementing a permanent international feeding program?

Answer. The current pilot program is likely to continue into fiscal year 2002, simply because of the length of time needed to develop the individual project agreements with cooperating sponsors, procurement of the commodities and transportation services, shipment of the commodities, and then distribution overseas. Thus, the question of whether additional short-term funding might be needed is unlikely to arise until well into next year. Until the current pilot program is implemented and preliminary results known, it is difficult to take a position on prospective future funding for the initiative.

Question. Garnering international support for the McGovern-Dole proposal is important to the success of the program. Will the Administration bring this up at the next G8 meeting to build support among other member countries?

Answer. Items to be placed on the agenda for the next G8 summit currently are under consideration. The Global for Education Initiative is being considered as a possible item for discussion.

Question. The fiscal year 2002 budget includes $478 million for the Export Enhancement Program. But the USDA only spent $1 million in fiscal year 2000. I plan on introducing legislation that would authorize the USDA to reallocate unspent EEP monies for food aid and foreign market development programs. How does the Administration feel about reallocated unspent EEP funds?

Answer. The Administration has not taken a formal position on the proposal to authorize the reallocation of unused EEP funding. However, we would be willing to consider the proposal seriously as the Administration is committed to expanding access to overseas markets and the level of U.S. agricultural exports.

Question. As farmers are faced with more environmental challenges (water and air quality), how can we expect them to meet those challenges on such limited assistance?

Answer. We are very much aware of the environmental challenges facing farmers in today's economically stressed farm climate. We anticipate that these environmental challenges will be addressed in upcoming farm bill discussions.

Question. How can we expect farmers to try innovative conservation practices if there is not even enough funding for basic agriculture conservation programs?

Answer. We anticipate that environmental challenges facing farmers today will be thoroughly debated in upcoming farm bill discussions. In the meantime, USDA agencies such as the Natural Resources Conservation Service will continue to assist farmers in addressing environmental concerns with science based low-cost conservation practices. NRCS will also continue to rely on and support the innovation of farmers and ranchers in developing practical solutions to conservation problems.

Question. The Illinois NRCS has brought to my attention that they are facing a funding shortfall in fiscal year 2001 to pay technical staff because of reduced revenues of not having a Conservation Reserve Program sign-up this year. I recognize that the budget includes an increase in funding for CRP technical assistance, but that will not come until fiscal year 2002 and the Illinois NRCS needs the funds immediately. Will you support additional funds to pay for CRP technical assistance in fiscal year 2001?

Answer. In any given year, NRCS receives funding from several sources, including reimbursements from the Commodity Credit Corporation and supplemental appropriations to address disaster activities. The amount of shortfalls, if any, in funding for fiscal year 2001 will not be known until later this year when we know the full extent of reimbursements for CRP continuous signup activities and workload demands needed to address flooding and disaster activities in the Midwest and other places. In the meantime, adequate technical assistance funding will be available in fiscal year 2001 for the Conservation Reserve Enhancement Program (CREP) as well as the continuous CRP signup.

Question. But it appears, with respect to puppy mills, this is not an issue solely of funding. Authorizing legislation is needed to combat the problem. With Senator Santorum of Pennsylvania, I will be introducing bipartisan legislation to revoke licenses for chronic Animal Welfare Act violators, require proper socialization and veterinary care for animals in mass breeding conditions and limit breeding frequency. I hope that you will support this modest change in the law. Do you have any comment?

Answer. The Animal and Plant Health Inspection Service (APHIS) shares your concern for the welfare of animals in commercial breeding facilities and appreciates this opportunity to explain our efforts on their behalf. Under the Animal Welfare Act (AWA), APHIS requires individuals who breed certain animals—including dogs-for sale at the wholesale level to be licensed. These individuals must provide their animals with veterinary care, a balanced diet, clean and structurally sound housing, and protection from extremes of weather and temperature, among other things.

With regard to your proposal calling for proper socialization, current language in the AWA has requirements that licensed entities provide their animals with exercise. Certainly, APHIS believes that socialization, including exercise, is an important component to ensuring the health and care of licensed animals and would support additional socialization requirements that would benefit licensed animals.

With respect to the imposition of breeding requirements, APHIS believes that limiting breeding frequency may improve the overall welfare of breeding females. However, enforcement of such a requirement would be difficult due to the wide range of licensed breeds with varying ranges for appropriate breeding frequency. There is also widespread disagreement within the animal welfare community and commercial breeding industry regarding what constitutes appropriate breeding frequency.

I want to assure you that, in cases of serious or repeat violations of the AWA that remain uncorrected, alleged violators are prosecuted to the fullest extent of the law, including the imposition of penalties such as fines, license suspensions, and license revocations. Data for fiscal years 1996–1999 demonstrate our commitment to AWA enforcement. During that time, APHIS imposed more than $3 million in monetary penalties and issued 122 revocations, suspensions, and disqualifications. The Department also moved forward in its efforts to expedite the prosecution of AWA offenders, virtually eliminating the backlog of cases awaiting resolution. You may be interested to learn that APHIS has proposed a regulation that would allow the Department to deny a license renewal if a facility is in chronic noncompliance. (Currently, we must renew any license if the appropriate fees are paid regardless of compliance history.) After completion of a thorough review of the numerous comments received, APHIS will determine how to proceed with rulemaking.

QUESTIONS SUBMITTED BY SENATOR TIM JOHNSON

CRP-WETLANDS PILOT PROJECT

Question. Madam Secretary, we have visited about a new pilot program I pushed last year to enroll farmed wetlands in the continuous CRP—which was enacted with some help from Senators Harkin, Kohl, Cochran, and Daschle. This two year pilot program was created by farmers and conservationists in South Dakota, and it would permit up to 500,000 acres of farmed wetlands to be enrolled under CRP in six states (ND, SD, MN, NE, IA, MT) of the Prairie Pothole Region. Currently, grass filter strips surrounding these farmed wetlands qualify for CRP, but not the actual wetland acreage. This has proven to be an inadequate incentive for the purpose of getting this sensitive land out of production.

Last year, this proposal was endorsed by the American Farm Bureau, National Farmers Union, the National Corn Growers Assoc., the American Soybean Assoc., the National Assoc. of Wheat Growers, Ducks Unlimited, Pheasants Forever, the National Wildlife Federation, the National Audubon Society, and the International Assoc. of Fish and Wildlife Agencies—just to name a few. The pilot project will provide landowners an alternative to farming these highly sensitive wetlands in order to achieve a number of benefits, including; improved water quality, reduced soil erosion, enhanced wildlife habitat and, less wetland drainage.

Unfortunately, the rule to begin the process for farmers to sign-up for the program has yet to be published in the Federal Register. While the severe and wet weather in South Dakota and other reaches of the country have delayed planting decisions and inadvertently could permit some to enroll in this program, further procrastination on the finalization of this rule will only hurt the chances for this program to succeed. I urge you to work with the appropriate agencies within USDA to ensure the rule for this CRP-wetlands pilot project is published in the Federal Register and that sign-up commence as soon as possible.

Answer. Thank you for your interest in the Conservation Reserve Program (CRP). The Farmable Wetlands Pilot Program rule for CRP is expected to be published in the Federal Register on May 2, 2001. We expect the sign-up activities to begin in May as well.

(Note: The notice was published in the Federal Register on May 2, 2001.)

COUNTRY-OF-ORIGIN LABELING (COL)

Question. Last month, I wrote you a letter regarding an effort by a coalition of meatpackers and retailers who've petitioned USDA to create a voluntary U.S. beef certification program titled "Beef: Made in the USA." To the extent that this voluntary certification program enabled producers, packers, and retailers to work together, I supported their effort. Yet, I have indicated to the coalition and USDA that I preferred to move forward with my bipartisan legislation (S. 280, the Consumer

Right to Know Act of 2001), which requires country-of-origin meat labels on beef, lamb, and pork meat products, as well as fruits and vegetables.

To qualify as "Beef: Made in the USA" under the voluntary system advocated by the coalition, U.S. beef products could originate from cattle raised and fed a mere 100 days in the U.S. For instance, under the proposal, a ribeye steak could be identified as "Beef: Made in the USA" even though it originated from a steer or heifer that was born in a foreign country, raised (perhaps up to one year) in a foreign country, and shipped to the U.S. at least 100 days prior to slaughter. Essentially, this means a beef product of foreign origin may be labeled as coming from the United States.

Given the recent and very real concerns about the spread of diseases such as Foot and Mouth disease (FMD) and BSE or "mad cow" in foreign countries, the requested definition of "U.S. beef" under this voluntary certification proposal is simply insufficient. Any certification or labeling program that even unintentionally permits beef from cattle where FMD or BSE have been discovered to be identified as "Made in the USA," is misguided and risky. While current safeguards make this unlikely, the requested definition may blur the line and create unnecessary confusion and concern about the origin and safety of meat products originating in the U.S.

I believe the standard for beef to qualify as "Made in the USA" should be simple and truthful. As such, the standard should be that for any meat product to be identified as "U.S." or "Made in the USA," it should originate from an animal that is born, raised, and slaughtered in the U.S. Consumers expect no less and livestock producers deserve no less.

I ask USDA to immediately revise the petition to include my recommended strong standard for defining beef as "Made in the USA," or to reject the coalition's voluntary beef certification petition at this time, and work with the bipartisan Members of Congress who are favoring mandatory country-of-origin meat (and fruit and vegetable) labeling legislation that offers strong, meaningful standards for identifying food products as "Made in the USA."

Answer. A Congressional directive contained in the Conference Report accompanying the fiscal year 2000 Agriculture Appropriations Act requires the Department, in consultation with the affected industries, to promulgate regulations defining which cattle and fresh beef products are "Products of the U.S.A." In addition, the Department was also directed to determine what labeling terminology would best reflect that the beef products were derived from cattle born, raised, and slaughtered in the U.S. At this time an Advanced Notice of a Proposed Rulemaking is under consideration that would solicit industry input on how to define U.S. beef products, whether the scope of such labeling should be applied to poultry, what type of verification programs should be employed, and the potential impact on international trade. In light of these developments, the Department informed the industry coalition that sent the petition that the petition will not be addressed until the issues raised by Congress are addressed.

USDA–APHIS PRECEDENT FOR DEFINING THE ORIGIN OF BEEF CATTLE

Question. Madam Secretary, on Wednesday, June 28 of last year, USDA's Animal and Plant Health Inspection Service (APHIS) issued an interim rule and request for public comment regarding regulations governing the importation of animals, meat, and meat products from Argentina, as an emergency measure to protect livestock herds in the United States from foot and mouth disease (FMD).

One of the conditions for the importation of fresh beef from Argentina—in the context of rule—was that the beef indeed originate from Argentina. APHIS indicated (on page 39783 of the Federal Register, Volume 65, No. 125, on Weds. June 28, 2000) that "in order to avoid any misunderstanding of their intent regarding the term originate," they are specifying that "fresh beef, to be imported from Argentina, must originate from bovines that were born, raised, and slaughtered in Argentina." APHIS goes on to say they consider this change "necessary to make it clear that beef exported from Argentina that comes from any animals born, raised, or slaughtered in a country other than Argentina may not be imported into the U.S."

Now that imports of beef from Argentina have been suspended—for the second time in less than a year—this regulation is temporarily moot. However, APHIS's definition of "originate" does set a precedent, in my mind and I'm sure in others, that the only clear and truthful way to describe a meat product as "originating" from someplace is to define or describe it as meat from an animal born, raised, and slaughtered in a given country before it can be said it "originates" from a given country.

Wouldn't you agree that given this USDA precedent—albeit an APHIS precedent dealing with whether beef can be imported from Argentina in response to concerns

about FMD—demands that USDA consistently follow it in working on the voluntary beef certification program, the carcass grading rule, and negotiating with USTR and WTO partners in the context of defining "country-of-origin?"

Answer. The definition established by the Animal and Plant Health Inspection Service (APHIS) for use in the context of protecting U.S. agriculture from foreign animal diseases, does not necessarily set a precedent for use in defining a voluntary certification program's specification, defining what animals and carcasses are eligible for USDA grading, or when negotiating with USTR and WTO partners in the context of defining "country-of-origin" for marketing purposes. It also does not affect FSIS country of origin labeling requirements.

USDA CARCASSES QUALITY GRADING RULE STATUS

Question. Madam Secretary, in 1999, the National Cattlemen's Beef Association and the American Sheep Industry Association—in concert with other organizations such as R-CALF and National Farmers Union—petitioned USDA to end the grading of imported beef and lamb carcasses. Over 100 groups and individuals commented to USDA, and a majority requested that USDA discontinue grading of imported beef and lamb carcasses. Moreover, according to the Agricultural Marketing Service, this proposed rule only applies to around 150,000 beef and lamb carcasses imported annually. Therefore, this rule change, albeit modest, is certainly doable from an administrative standpoint.

American livestock producers invest millions of dollars annually to educate consumers about the quality, safety, and nutritional value of the meat produced on our ranches. Conversely, foreign nations do nothing to actively promote the value of USDA graded meat, yet they fight to ensure that meat products exported to the United States enjoy USDA quality grades when placed on retail shelves. For no defensible reason, this puts U.S. beef and lamb at a distinct competitive disadvantage in the retail market. Furthermore, this creates potential for unnecessary confusion among consumers whom may reasonably assume that a USDA grade shield indicates that a meat item is domestically produced.

Former USDA Secretary Glickman indicated that he'd support a rule change to discontinue grading on imported beef and lamb carcasses, yet, this rule was held-up in the transition. I am curious as to the status of this rule and encourage you and USDA to finalize a rule change to discontinue using USDA quality grades on imported beef and lamb.

Answer. A proposed rule that would discontinue the application of USDA grades to imported beef, lamb, veal, and calf carcasses was prepared and submitted to the Federal Register on January 19, 2001 for publication. As you stated, in accordance with White House Chief of Staff Andrew Card's regulatory review memorandum dated January 20, 2001, this proposal was withdrawn from the Federal Register before it was published so that there was an opportunity for review to ensure that it reflected the policies of this Administration. Accordingly, this review is still ongoing and the Department is considering what course of action to take.

STATE AG CREDIT MEDIATION PROGRAM FUNDING

Question. Madam Secretary, last year I introduced legislation to re-authorize, expand, and clarify the state agricultural mediation program, a bill eventually adopted by Congress and signed into law as an amendment to the Grain Standards Act Reauthorization. Our reauthorization extends mediation through 2005.

This step was significant, Madam Secretary, because family farmers and ranchers in South Dakota and all across this country continue to suffer from a depressed rural economy and rock-bottom commodity prices. Agriculture is the backbone of our economy, and we must not fail to provide support to our family farmers and ranchers who are coping with these difficult times.

Each year Congress provides funding for state mediation, and these funds are matched with state funds to carry out the mediation program. Currently, twenty-five states participate in this mediation program, (including Alabama, Arkansas, Arizona, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, Nevada, New Mexico, New York, New Jersey, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wisconsin, and Wyoming).

Four States—Mississippi, California, Colorado, and New York—are poised to begin new mediation programs this coming year. I believe this justifies the need for an increase in the Federal commitment to mediation, coupled with the fact that Congress clarified and expanded the scope of mediation last year to make clear that mediation can aim to resolve disputes such as wetland determinations, grazing issues, and USDA farm program matters, in addition to the traditional credit role of mediation.

The mediation program allows agricultural producers to settle their credit and farm program disputes in a fair way without digging themselves into legal debt. USDA's fiscal year 2002 budget suggests funding at $3 million, despite the fact that additional states are coming on line this year, and Congress expanded the scope of mediation last year, I am urging you to support and increase for mediation.

Answer. The program has had some success in resolving disputes, particularly over issues relating to USDA's farm credit programs. USDA also other methods in place for resolving such disputes, such as the National Appeals Division. Our farm loan programs also provide extensive servicing options for borrowers who are having difficulties. Our field staff is there to help.

EFFORTS TO PREVENT BSE AND FMD

Question. Foreign outbreaks of the infectious virus FMD, tied to fear and confusion about the effects of BSE in Europe, have resulted in frightening, headline-grabbing news reports that concern many American consumers and livestock producers. While BSE has never been recorded in the U.S., and FMD was eradicated here in 1929, Congress and USDA can play a role to ensure the health of our domestic livestock herds and the safety of our meat and food supplies.

As you know, USDA currently enforces a ban on the import of ruminant animals and animal products (primarily beef-based) into this country. I applaud the Department's recent step to ban the import of all animal and animal products from the European Union (EU), in response to the spread of FMD.

Additionally, the Senate recently adopted legislation sponsored by over 30 Senators that requires reports from executive-level agencies—led by USDA—on the efficacy of current disease prevention safeguards, whether additional authorities are needed to prevent BSE and/or FMD, how well agencies at the executive level are cooperating, and whether additional funding is necessary to prevent either disease.

I am pleased that USDA's budget request for fiscal year 2002 increases funding for disease prevention. In fact, you seek to increase the Animal and Plant Health Inspection Service (APHIS) budget by $174 million from fiscal year 2001, up to an $849 million total for fiscal year 2002.

This should authorize additional resources to increase inspection personnel that protect against animal and plant diseases like FMD at major U.S. ports of entry. Specifically, USDA can hire approximately 350 additional personnel at critical ports and international airports to protect against pests and diseases. I am equally pleased with your requested $13 million in additional program support to strengthen the Agriculture Quarantine Inspection Program (AQI), which helps protect the U.S. against animal diseases like FMD and BSE. Finally, in regards to increases in Agricultural Research Service (ARS) efforts to prevent diseases, I support your request for an increase of $5 million for BSE-related research.

However, some indicate additional authorities may be needed to deal with a potential BSE outbreak in the U.S. Would you address whether USDA believes it is necessary for additional funding or authorities to prevent BSE and FMD?

Answer. We periodically assess funding and authority needs to facilitate quick and effective action. In the President's supplemental appropriations request, we included $35 million for the Animal and Plant Health Inspection Service. This would chiefly be for dealing with foreign animal diseases.

MANDATORY PRICE REPORTING

Question. In 1999, Congress adopted mandatory price reporting—legislation sponsored by myself and many others in the Senate to require the major meatpackers to report the prices they pay for negotiated transactions of slaughter-ready livestock.

On April 2nd, USDA's Agricultural Marketing Service launched price reporting. I am curious as to how things have been progressing. Do you have any updates on price reporting? Does USDA need additional funds to ensure the proper functioning of price reporting?

Answer. Beginning in April 2001, packers have been submitting data to the Agricultural Marketing Service (AMS) via a secure Internet connection, allowing AMS to release some reports that do not compromise the identity of source packers. However, AMS has not been able to be release a number of reports due to confidentiality provisions. The confidentiality provisions are being reviewed to determine if statistical procedures can be implemented that will allow for release of additional reports without disclosing the identity of source packers. The following reports have not been released due to technical problems: swine reports, cow cut reports, and lamb carcass reports. The technical problems are being investigated and will be corrected as soon as possible. Funds requested in the President's 2002 budget will ensure the proper functioning of mandatory price reporting activities.

QUESTIONS SUBMITTED BY SENATOR ROBERT C. BYRD

RURAL WATER AND WASTEWATER

Question. Madam Secretary, in our modern world, in a nation that enjoys a comparably high standard of living, it is difficult to conceive of areas where clean, safe, drinking water and sanitary wastewater disposal are unavailable. Yet, a recent Environmental Protection Agency report on the state of unmet drinking water needs across America found that for rural areas and communities of 10,000 or less, the total unmet need is nearly $48 billion! In West Virginia alone, funding for water and wastewater programs is deficient by over $41 million for 2001, based on the applications on hand. The backlog of applications awaiting funding across the nation totals nearly $800 million in grants and $2.2 billion in loans! Certainly this is a critical public health issue that should be addressed with all due speed.

In an effort to address rural water and wastewater needs, and to allow the Department of Agriculture to address its backlog of applications, I offered an amendment to the Congressional Budget Resolution for fiscal year 2002, which would increase domestic discretionary spending for rural water and waste water programs by $1 billion. My amendment was adopted.

I am concerned that the President's budget for the Department of Agriculture ignores the backlog of applications and fails to respond to the need for water and wastewater projects. Instead, the President's budget proposes reductions for rural water and wastewater programs. Particularly disheartening is the budget's intent to reduce rural water and sewer grant programs, which help the neediest communities, below fiscal year 2000 funding levels. How do you justify a reduction in funding levels for rural water and waste water programs when such a basic need as clean, safe drinking water for all Americans has not yet been met?

Answer. The level of loan and grant assistance that would be offered by our ongoing water and waste disposal program in 2002 is not being reduced. It is the same as appropriated under the discretionary cap for 2001. The 2001 Appropriations Act did, however, include some emergency funding that did not count against the cap. This emergency funding remains available until expended. No additional funding is being requested on an emergency basis.

It is true that the 2002 budget reflects a reduction in budget authority for the water and waste disposal program. Recent declines in interest rates have reduced the subsidy rate on direct loans, which means that the cost to the Government for making the same amount of loans is less. This is a technical matter on how the program is budgeted, not one relating to the level of assistance the program is expected to provide.

Question. Would you support providing a fiscal year 2002 funding level for rural water and wastewater programs that would address the backlog of unfunded applications for rural water and wastewater projects?

Answer. A backlog of about $3 billion in requests for water and waste disposal loans and grants has existed for the past several years. Some, but not all, of these requests are ready for funding. Due, in part, to the amount of time it takes to develop a typical water or waste disposal project, a backlog is not unexpected. Trying to eliminate it would put a stress on the approval process. The President's 2002 budget provides adequate funding to maintain the continuity of the program.

Question. Other than sufficient funding levels, are there other barriers prohibiting access to clean and safe drinking water for all Americans? If so, what are these barriers, and how would you eliminate them?

Answer. There are no real barriers. However, a typical water or waste disposal project represents a major undertaking for most rural communities. There may be engineering difficulties or environmental concerns. In almost all cases, a great deal of planning and coordination with local, State and other Federal agencies is necessary, which takes time.

EMERGENCIES

Question. Year after year the Appropriations Committee has scrambled to provide emergency assistance to farmers when natural disasters—such as floods, droughts, or hurricanes—strike. Already this year, the Mississippi River has spilled from its banks. The USDA has received more than 123 requests for emergency declarations since the beginning of April and many counties have already received disaster declarations in the first four months of 2001. Farmers may also face factors such as low prices for their products, regardless of improved marketing practices or trade with foreign nations. In sum, unpredictable events will undoubtably negatively impact our nation's farmers during fiscal year 2002. In the President's budget for agriculture, under the guise of fiscal responsibility, there are no specific allowances for

emergency spending. Although the President's budget includes allowances for emergency spending, it does not make clear how that funding would be made available. While no one can control the powers of nature, Congress can certainly prepare to deal with the consequences of natural disasters and other unforseen events, and the impact that these events will have on farmers. To do less than this is to leave our responsibilities unfulfilled.

Rather than reacting to emergencies as they arise, we may instead want to take proactive actions to ensure that there are no holes in the safety net for rural communities and farmers. For example, following the 1999 drought that devastated West Virginia's agricultural economy, I worked with then Agriculture Secretary Glickman, the Senator from Mississippi, Thad Cochran, and others to create a contingency fund of $450 million to expedite Federal assistance should another disaster materialize. If drought struck, this contingency fund would be in place so that assistance could be immediately infused to address sudden agricultural emergencies. My initiative was really an ounce of prevention. It set aside funding to be made available only if a drought occurred, but as soon as a disaster is declared. Plans such as this are helpful in addressing drought more rapidly and, ultimately, reducing losses.

The drought contingency fund that I created ensured that should disaster occur funding would be made available for farmers expeditiously. Under the President's contingency fund, how quickly could funding be made available?

Answer. The President's budget proposal includes two provisions for potential emergency or unanticipated needs. The first is a National Emergency Reserve of $5.6 billion which would be set aside under the budget resolution for use in meeting extraordinary large natural disaster needs, primarily but not exclusively, of the Federal Emergency Management Agency's disaster relief fund, USDA's and Department of Interior's fire fighting programs, and SBA disaster loan programs. This reserve would be allocated to the Appropriations Committees upon a Presidential request designating the proposed funding as an emergency, as well as, determination by the Budget Committees that appropriate criteria are met. This proposed change in procedures would restore discipline to the budget process and reduce needs for supplemental emergency appropriations. It would also ensure availability of budget authority for major disaster relief.

The President's budget also proposes a contingency reserve of about $1 trillion over the next 10 years to be available to meet unanticipated or difficult to estimate in advance priority spending needs, including potential economic or disaster assistance for farmers. This reserve is included in the estimates of on-budget surpluses and provides for potential future increased spending needs. This proposal also, of course, depends on Congressional action to allocate and authorize funding. The President's contingency fund, thus, attempts to assure that funding will be available for unanticipated needs, but does not otherwise expedite the process of making funds available since Congressional action will be required.

Question. Should the so-called "contingency fund" from which the President's budget proposes emergency farm assistance be drawn be depleted for non-agricultural emergencies, what assistance will be available for farmers?

Answer. The Congress, of course, could choose to allocate additional funding for farm assistance through emergency supplemental appropriations or otherwise if necessary. Of course, we hope that the improved crop insurance and related programs provided by the Agricultural Risk Protection Act of 2000 and other ongoing programs will help meet any additional needs. And we understand the currently pending Congressional Budget Resolution may result in allocation of additional funding for farm assistance, so that there may be less likelihood that we will be faced with the problem you pose.

RESEARCH PROGRAMS/FOOD SAFETY/ADMINISTRATION PRIORITIES

Question. The President's budget cuts $34 million from earmarked projects. I recognize the need to set funding priorities. However, I am concerned that the budget does not allow room for priorities which are not set by the Administration. In fact, the budget makes a point of redirecting funding focused on specific research projects, simply because they are Congressional earmarks, to the Administration's priorities. I am concerned that some Congressionally earmarked projects that provide critical components to Administration priorities have simply not been considered.

For example, a $2 million earmark that I added to the fiscal year 2001 Agriculture Appropriations bill for Pasture-Based Beef Systems research at the Agricultural Research Service Appalachian Farming Systems Research Center, in Beaver, West Virginia, was eliminated. This project teams the Research Center with West

Virginia University, and Virginia Tech. The project's goal is to enhance the efficiency, profitability, sustainability, and environmental stewardship of grass-based beef production systems. Not only would this project provide a new economic opportunity for farmers, but it will also provide a nutritious, high quality, and safe meat product. As more attention is focused on food safety and healthy eating, more information is needed on profitable sustainable production systems such as pasture-based beef, which guards against serious food safety issues, such as animal disease in concentrated feeding areas, produces products high in beneficial fatty acids and nutrients, and reduces environmentally costly production methods. I hope that you will agree that the goals of the pasture-based beef project are important to the future of agriculture in America.

Other than the fact that they were earmarks, what criteria was used to reduce or eliminate funding for more than seventy Agricultural Research Service projects nationwide?

Answer. The President's fiscal year 2002 Budget recommended that all research projects which were added in fiscal year 2001 be discontinued in fiscal year 2002 to finance national high priority agricultural research initiatives in the following areas: emerging and exotic diseases and pests of plants and animals; biotechnology risk assessment; agricultural genome/bioinformatic tools; control of invasive species (weeds/anthropods); and biobased products and energy. The administration believes that taxpayer dollars must be spent on the highest priority needs of national significance.

RESEARCH FACILITIES

Question. Page 71 of the budget summary for the U.S. Department of Agriculture for fiscal year 2002 notes that innovative research depends upon the availability of modern facilities. However, the President's budget for fiscal year 2002 reduces funding for buildings and facilities to forty percent of the funding level for fiscal year 2001, and identifies specific science centers that would be the only centers eligible for improvement. In West Virginia, both the Appalachian Farming Systems Research Center in Beaver and the Appalachian Fruit Research Station in Kearneysville require improvements to their facilities. Without some of these improvements, research progress may be hampered, or even set back. How does the Department justify such a drastic cut to funding for research buildings and facilities when all of its laboratories are not completely modernized and fail to meet industry standards?

Answer. We recognize the need for substantial funding required for the modernization of ARS' buildings and facilities each year. However, the Administration believes that growth in Federal spending must be controlled and only the highest priority modernization and construction projects are requested in ARS' Buildings and Facilities for fiscal year 2002.

SENIOR FARMERS' MARKET NUTRITION PILOT PROGRAM

Question. A meeting I had with former Agriculture Secretary Glickman and Undersecretary Shumacher led to the implementation of the Senior Farmers' Market Nutrition Pilot program. This program is intended to improve the nutrition of low-income seniors by encouraging their connection with local farmers, while also improving market opportunities for farmers. The program will provide low-income seniors with coupons to use toward purchasing fresh fruits, vegetables, and herbs from farmers' markets, roadside stands, and community supported agriculture programs. The USDA announced that it would provide the West Virginia Department of Agriculture a grant for $1.2 million to operate the Senior Farmers' Market Nutrition Pilot program in 2001. West Virginia expects that this program will benefit more than 50,000 seniors in eleven West Virginia counties this year. Nationwide, $15 million was provided for this program in fiscal year 2001, but the President's budget does not include funding in its fiscal year 2002 budget for this project.

Would you agree that programs such as this, which help consumers and producers, can improve the health and economic well-being for all of the involved parties? What criteria was used in considering the elimination of this project?

Answer. The SFMNPP was funded as a pilot program by the previous Administration and no decision has been made by the current Administration whether it will be continued beyond the current fiscal year. I certainly agree that farmers' markets are of great benefit to both producers and consumers, and the Department intends to continue our ongoing involvement in encouraging farmers' markets, including providing funding to allow access by low-income households. The Department believes that the Senior Farmers' Market Nutrition Pilot Program (SFMNPP) will help sen-

ior citizens achieve the goal of consuming five servings of fruits and vegetables each day which will assist them in improving their nutritional health.

Question. What opportunities exist for expanding the Senior Farmers' Market Nutrition program?

Answer. Funding for the SFMNPP comes from the Commodity Credit Corporation and does not require an appropriation. The SFMNPP was funded as a pilot program by the previous Administration. No decision has been made by the current Administration as to the continuation of the pilot program beyond fiscal year 2001.

AQUACULTURE

Question. Could you provide a status regarding the National Center for Cool and Cold Water Aquaculture, including expected timetable for completion and dedication?

Answer. Design was awarded in March 1999. Construction was awarded in July 1999, and was originally expected to be completed by September 2000. Due to financial difficulties with the contractor, the government terminated the contract for default. A takeover agreement was signed in May 2000. Project completion will be in July 2001. A dedication ceremony is anticipated for mid-August.

Question. What funding is made available for the operation of the National Center for Cool and Cold Water Aquaculture in the President's budget?

Answer. Fiscal year 2002 funding available in the President's budget is $3,328,400 (gross). Proposed project terminations total $1,708,700.

SUBCOMMITTEE RECESS

Senator COCHRAN. Our next hearing is going to be on Thursday, May 3, at 10:00 a.m. in this room, 138 of the Dirksen Senate Office Building. At that time, we will hear from Department of Agriculture witnesses regarding assistance to producers and the farm economy.

This concludes the hearing. We are recessed.

[Whereupon, at 3:20 p.m, Wednesday, April 25, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

THURSDAY, MAY 3, 2001

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:07 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Johnson, Kohl, and Dorgan.

DEPARTMENT OF AGRICULTURE

FARM AND FOREIGN AGRICULTURAL SERVICES

STATEMENT OF THOMAS HUNT SHIPMAN, ACTING DEPUTY UNDER SECRETARY

ACCOMPANIED BY:

KEITH COLLINS, CHIEF ECONOMIST, DEPARTMENT OF AGRICULTURE

DENNIS KAPLAN, DEPUTY DIRECTOR, OFFICE OF BUDGET AND PROGRAM ANALYSIS, DEPARTMENT OF AGRICULTURE

JAMES LITTLE, ACTING ADMINISTRATOR, FARM SERVICE AGENCY, DEPARTMENT OF AGRICULTURE

PHYLLIS W. HONOR, ACTING ADMINISTRATOR, RISK MANAGEMENT AGENCY, DEPARTMENT OF AGRICULTURE

MARY CHAMBLISS, ACTING GENERAL SALES MANAGER, DEPARTMENT OF AGRICULTURE

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. The subcommittee will please come to order. Today the subcommittee continues the consideration of the fiscal year 2002 budget submitted by the President for the Department of Agriculture, which includes, of course, Rural Development and Related Agencies.

It gives me a special pleasure this morning to be able to welcome my good friend and former staff member, the Acting Deputy Under Secretary for Farm and Foreign Agriculture Services, Hunt Shipman, as a witness before our subcommittee; and also to welcome our friend Keith Collins, who is the chief economist of the Department of Agriculture. They are accompanied by Dennis Kaplan, who is representing the Department's budget office.

Today, we will review the emergency farm assistance programs being administered by USDA and the outlook for the farm economy.

Last year Congress approved nearly $9 billion in crop and market loss assistance for agriculture producers. This assistance was provided under the authority of the Agricultural Risk Protection Act as well as the Agriculture Appropriations Bill.

Emergency funding for farmers is not specifically requested by the President in the budget request he has submitted to Congress. But the budget does propose a contingency fund to meet emergency requirements arising from natural disasters and unforeseen events; and a 10-year contingency reserve, which could be used to provide additional assistance to farmers, if needed.

I know the Department has made the implementation of emergency assistance programs a high priority. It has worked to promulgate regulations and disperse funds to producers.

The Committee looks forward to working with the Department on these and other efforts to help farmers and to strengthen the U.S. farm economy. We have the statements that have been prepared by the witnesses and they will be made a part of the record.

Mr. Shipman, you may proceed.

STATEMENT OF THOMAS HUNT SHIPMAN

Mr. SHIPMAN. Thanks very much, Senator. It is a humbling experience for me to be here today for three reasons—one to be here in the role that I am today; also, to be here in the company of Keith Collins, whose outstanding job I have been able to watch in my previous job on the other side of dias as he responded to these questions; and third, to represent the career staff that is here.

With me today are three acting administrators, who, along with people around the country, have worked so hard to implement the programs that Congress has authorized over the last few years and particularly in the fiscal year 2001 Agricultural Appropriations Act to assist farmers and ranchers around the country.

As I mentioned, with me today are the three acting administrators of the Farm Service Agency, the Risk Management Agency, and the Foreign Agricultural Service. They are Jim Little, Phyllis Honor and—well, my testimony is wrong, but Mary Chambliss as well. I am sorry.

Mr. SHIPMAN. Let me speak to each of the three agencies' activities and how they play into the delivery of emergency assistance in implementing the authorities that Congress has provided us and also in how that plays into the fiscal year 2002 budget.

In recent years, FSA has handled a tremendous increase in workload associated with the problems that we have seen in agriculture country all around our nation.

Marketing assistance loan placements have doubled between 1997 and the year 2000, loan deficiency payment transactions have increased over 5,000 percent or 51 times the 1995 level.

Marketing loan gains and loan deficiency payments increased from negligible levels in 1997 to over $4 billion in 1999 and $8 billion in the year 2000, and are expected to remain near $7 billion for 2001 and $5 billion in 2002.

Demand for farm operating, ownership, and emergency loans has increased more than 65 percent from the pre-farm-crisis period.

In the past year, FSA has implemented 24 new and reauthorized farm programs mandated by the fiscal year 2001 Agriculture Ap-

propriations Act, as well as 17 programs authorized by the Agriculture Risk Protection Act of 2000 and the Military Construction Act of 2001. Farmers are now signing up or receiving payments for more than 20 programs that USDA has implemented.

FSA's ongoing commodity program activities include administration of production flexibility contracts, the Marketing Loan and Loan Deficiency Payment Programs, and the Non-Insured Crop Disaster Assistance Program.

In implementing the emergency and disaster assistance programs, Congress provided nearly $14 billion including $11 billion in loss payments for 1999 and 2000 crops.

For this fiscal year, Congress authorized $1.8 billion for crop losses and nearly $500 million to assist livestock producers.

About $2 billion—$2.2 billion—was provided for market loss and other emergency assistance in fiscal year 2001, including the dairy market loss assistance estimated at $675 million, $500 million for oilseeds, and emergency payments for apples, cranberries, potatoes, honey, peanuts, tobacco, nursery stock and other producers.

Signup has closed or is still under way for the 2000 Crop Disaster Program, the Florida Nursery Program, apple and cranberry market loss assistance, the Tri-Valley California Cooperative Insolvency Program, the 2000 Oilseed Program, the Peanut Marketing Assistance Program and the Tobacco Loss Assistance Program.

And signup will begin this month for the 2000 Disaster Quality Loss Program, the Apple and Potato Quality Loss Program, and the Potato Diversion Program.

Livestock producers are receiving benefits through the 2000 Livestock Assistance and Livestock Indemnity programs, the American Indian Livestock Feed Program, Poultry Enteritis Mortality Syndrome Program, wool and mohair loss assistance, and others that I will submit for the record. In total, more than 54,000 producers have applied for livestock aid totaling over $270 million by April 16.

To date, nearly 1,300 counties in 34 States, more than 40 percent of all the counties in our country, are eligible for the Livestock Assistance Program.

The 2002 President's budget proposes to fund emergency needs, such as crop and livestock disaster assistance and emergency conservation, through a $5.6 billion national emergency reserve. And this reserve would be available for sudden, urgent and unforeseen needs government-wide. Funds would be released from this reserve only after approval from the Congress and the President.

In the farm loan program, the loan portfolio is showing its best performance in many years, as evidenced by a direct loan delinquency rate of 12.3 percent, which is the lowest in 20 years. The guaranteed loan delinquency rate is at an all-time low of 1.8 percent, and the direct loan loss rate is at its lowest since 1987. In addition, our inventory of property is at its lowest since 1980.

For fiscal year 2002, the President's budget request will support $3.9 billion in direct and guaranteed loans. And these loan levels will serve an estimated 37,000 producers.

In the conservation area, which is the second largest category of Commodity Credit Corporation expenditures, the largest program is the Conservation Reserve Program.

CRP enrollment is expected to reach 33.9 million acres at the end of this fiscal year and to reach its maximum authorized level of 36.4 million acres by December 31st of 2002.

Included in this are 4.2 million in cumulative acres that are projected to be enrolled under continuous signup, as well as 500,000 farmable wetland acres. Outlays for this program in 2002 are expected to be $1.8 billion.

The Administrative Expenses budget has enabled FSA in the last two fiscal years to employ additional temporary staff to meet the heavy workload associated with administering ongoing and emergency assistance programs.

We are also continuing to re-engineer and streamline business processes, such as establishing the common computing environment, and to expand our E-government services and capabilities as mandated by Congress.

In the next year, we will continue to review our field office structure and to identify additional opportunities to improve efficiencies and realize savings. However, FSA continues to have significant temporary staffing needs that are reflected in our budget request for 2002.

The Risk Management Agency's top priority is to implement the Agricultural Risk Protection Act, or ARPA, of 2000, so that farmers can realize the benefits of an improved crop insurance program as soon as possible.

Title I of that Act includes a 5 year, $7 billion initiative to make higher levels of protection more affordable and useful to producers, to provide better protection for farmers suffering multi-year losses, to expand risk management education and outreach opportunities, to stimulate development of new risk management products and to improve the program's integrity.

RMA began last year by reducing farmer-paid premiums and increasing yield coverage levels that were mandated as a part of the enactment of ARPA.

So far in 2001, crop insurance sales have increased substantially, with significantly more acreage covered under revenue insurance products. Crop revenue coverage has tripled and currently covers about 51 percent of all acreage reported today. Coverage under the revenue insurance program now available in the southern plains has increased about 7 percent.

RMA has worked closely with the Farm Service Agency to develop a coordinated plan that includes training, claims, audit and fraud referral procedures, and data reconciliation, which was such an important part of the discussion as Congress enacted the ARPA.

As a part of this plan, RMA will provide anti-fraud and loss adjustment training to over 2,500 Farm Service Agency State and county office personnel.

RMA has also worked with other USDA agencies to utilize contracting authority to make greater use of partnerships and private sector expertise in developing new risk management products.

The Agency has awarded four contracts to help develop new insurance plans for currently insured crops as well as new crop policies, and new types of risk management products.

The agency has studies underway on the cost of production pilot program, the feasibility of developing a pasture and range land in-

surance program, new revenue coverage plans and a livestock pilot program. Also, it is planning to implement a pilot raspberry/blackberry crop insurance program for the 2002 crop year.

Another important function is to expand crop insurance participation in under-served regions. And RMA is working to expand its risk management activities and utilize forums such as producer meetings in the Cooperative State Research, Education, and Extension Service to provide that education.

The President's budget for 2002 includes full funding for implementing many of the crop insurance reforms authorized by Congress. This budget includes increases of $232 million in mandatory spending to finance the additional subsidies in delivery expenses associated with additional participation, and $9 million in discretionary spending, which includes $4.5 million to finance data mining and improvements in information technology systems.

The Foreign Agriculture Service's primary mission is to continue to move forward in multilateral trade negotiations and to expand overseas markets intelligence and technical expertise that we need to support agricultural trade.

International negotiations to further liberalize agricultural trading practices are already underway under the auspices of the World Trade Organization.

And the United States has already offered a set of ambitious proposals for the negotiations that provide for the elimination of export subsidies, improved market access, reform of State trading enterprises, tighter rules on trade distorting domestic support and facilitation of trade in the products and new technologies.

USDA will work closely with the Office of the United States Trade Representative to secure an agreement which incorporates these objectives.

Negotiations are also underway to achieve a free trade area of the Americas by 2005. For agriculture, these objectives include eliminating support subsidies that affect trade in our hemisphere, identifying and reducing other trade distorting practices, and ensuring that sanitary and phytosanitary measures are based on science and conform with the Uruguay Round principles.

A successful conclusion of these negotiations will gain American farmers increased access to a region of 675 million people with a combined consumer buying power of over $1.5 trillion.

But farmers and agricultural businesses do not just benefit from open markets, they depend on them for their income, as agriculture generally ranks among the top six industry groups in export sales. Dollar for dollar, we export more meat than steel, more corn than cosmetics, more wheat than coal, more bakery products than motor boats and more fruits and vegetables than household appliances.

Agriculture is also twice as dependent on exports as the general U.S. economy. So the apparent rebounding in our export numbers is a welcome trend.

Last year, agriculture exports were valued at $51 billion. In fiscal year 2001, they are forecast to increase to $53 billion.

The technical trade issues such as those related to food safety and biotechnology are among the toughest for us to deal with and have occupied much of the time of the Secretary and I in the first few months of this Administration.

It is important we participate actively in the international organizations that set technical standards that govern agricultural trade; and our focus will be in making sure that biotech and other approval regimes are transparent, predictable, and based on sound science.

Our budget request for 2002 reflects these concerns and includes increased funding to expand FAS's capabilities to address technical trade issues and to strengthen our market intelligence capabilities at overseas posts.

We will be focusing our efforts on 14 important markets around the world where opportunities to expand our exports appear to be greatest.

In addition, the budget also contemplates adequate funding for our export promotion and market development program so that we can benefit from emerging market opportunities, the Foreign Market Development or Cooperator Program, the Market Access Program, and the Quality Samples Programs are estimated to be funded at $120 million for 2002, which is the same as the current fiscal year.

Our export guarantee programs are estimated at $3.9 billion, an increase of more than $100 million above fiscal year 2001.

And finally funding for the Export Enhancement Program is estimated at $478 million, the statutory maximum and the same level as this year.

Funding for the Dairy Export Incentive Program is estimated at $42 million, which is slightly higher than the current fiscal year.

PREPARED STATEMENTS

Mr. Chairman, this concludes my statement. And I look forward to answering any questions the subcommittee might have.

Senator COCHRAN. Thank you very much, Mr. Shipman.

[The statements follow:]

PREPARED STATEMENT OF THOMAS HUNT SHIPMAN

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you today with USDA's Chief Economist, Keith Collins, to discuss our assistance to producers, both this year and as proposed in the President's fiscal year 2002 budget.

The mission of Farm and Foreign Agricultural Services is to secure the long-term vitality and global competitiveness of American agriculture through delivery of commodity, credit, conservation, insurance, and export programs. In the past several years, that mission has been tested by low commodity prices, weak overseas demand, and a continual onslaught of natural disasters. Improved market conditions have been slow to materialize, and with continued weakness in the farm economy, USDA will be closely monitoring crop and market conditions over the coming months.

In this economic environment, we have used our continuing authorities and recently enacted program and policy tools to help producers weather the market crises in production agriculture. Implementing those tools are the three agencies which comprise the mission area: the Farm Service Agency, Risk Management Agency, and the Foreign Agricultural Service. Each plays a significant role in USDA's continued efforts to help America's farmers and ranchers.

FARM SERVICE AGENCY (FSA)

The Farm Service Agency is USDA's principal organization for providing financial support to our nation's producers. Through its administration of farm commodity, credit, conservation, and emergency assistance programs, FSA helps to ensure a stable, accessible, affordable food supply while promoting stewardship of the land and providing assistance to our nation's farmers and ranchers.

In recent years, FSA has seen a tremendous increase in workload associated with tough times in farm country both in the agency's ongoing programs as well as in the dozens of new programs enacted to provide relief from market losses and natural disasters. Since 1993, FSA has experienced an 87 percent increase in program funding levels and a 24 percent reduction in staff.

At the same time, workload transaction volumes have increased substantially. Loan deficiency payments have increased over 5,000 percent or 51 times 1995 levels. Marketing assistance loan placements doubled between 1997 and 2000. Marketing loan gains and loan deficiency payments increased from negligible levels in 1997 to over $4 billion in 1999 and $8 billion in 2000 and are expected to remain near $7 billion in 2001 and about $5 billion in 2002. Demand for farm loans has increased more than 65 percent in recent years.

Supplemental appropriations in 2000 and 2001 have enabled FSA to employ additional temporary staff to meet the heavy workload needs of our ongoing and emergency assistance programs. To improve our service to our customers, we also are continuing to reengineer and streamline business processes, establish a common computing environment, and maximize efficiencies among the county-based agencies. However, FSA continues to have significant temporary staffing needs that are reflected in our budget request for fiscal year 2002.

Over the past year, FSA has implemented 24 new and reauthorized farm programs mandated by the fiscal year 2001 Agricultural Appropriations Act, as well as 17 programs authorized by the Agricultural Risk Protection Act of 2000 (ARPA) and the Military Construction Act of 2001. Farmers are now signing up or receiving payments for some two dozen programs.

Mr. Chairman, I'd now like to describe the efforts underway to help America's family farmers and ranchers.

Ongoing Commodity Programs

Production Flexibility Contract Payments.—The 1996 Farm Bill replaced the income support mechanisms of previous farm bills with production flexibility contract payments which are specified annually from 1996 through 2002 at a total of $35.6 billion. From fiscal year 1999 through 2002, producers eligible for contract payments on their wheat, corn, grain sorghum, barley, oats, upland cotton or rice crops had the option of receiving them as two 50 percent payments or one 100 percent payment anytime during the fiscal year. So far in fiscal year 2001, farmers have opted to receive about $3.2 billion of the $4.1 billion available. In fiscal year 2002, production flexibility contract payments will total nearly $4 billion.

Marketing Assistance Loans.—Non-recourse marketing assistance loans provide short-term financing to producers who harvest crops of wheat, feed grains, rice, minor oilseeds, soybeans and cotton. As of April 16, farmers had received $6.1 billion through 151,740 loans on their 2000 crops. For their 1999 crops, an additional $3.7 billion for 107,616 loans remains outstanding.

Loan Deficiency Payments (LDPs).—LDPs are made to producers who opt to forgo marketing assistance loans on their eligible crops. As of April 16, expenditures for the 2000 crop year totaled $6.2 billion on over 2.8 million LDP transactions for wheat, feed grains, upland cotton, rice, soybeans and oilseeds. Effective only for the 2000 crop year, producers growing a contract commodity on a farm with no production flexibility contract are eligible for LDPs on their 2000 crop production. Also effective only for the 2000 crop year, payment limitations were doubled from $75,000 to $150,000—for LDPs and marketing loan gains for contract commodities, oilseeds, and honey.

Farm Storage Facility Loans.—Under this program, which provides low-cost financing for producers to build or upgrade on-farm storage handling facilities, FSA funded 1,980 loans totaling $59.3 million for the 2000 crop year, of which $56.7 million remains outstanding. As of April 16, 466 additional loans have been made for the 2001 crop year. So far this year, nearly $16 million has been obligated, and $5 million disbursed to producers. In fiscal year 2002, the budget proposes outlays of $3 million to support a program level of $125 million for farm storage facility loans.

Dairy Price Support Program.—This program was extended through December 31, 2001, and the Dairy Recourse Loan Program was postponed to January 1, 2002. As of April 1, 2001, FSA has purchased 772 million pounds of nonfat-dry milk and 11 million pounds of cheese under the Dairy Price Support program.

Emergency and Disaster Assistance Programs

Appropriations acts provided about $5 billion in emergency assistance in 1999 and about $8.5 billion in 2000 to help farmers cope with some of the lowest commodity prices in many years. The Agricultural Risk Protection Act (ARPA) provided an ad-

ditional $6.5 billion in emergency funds for 2000. The fiscal year 2001 Appropriations Act provided an additional $3.5 billion in emergency funds.

For 2002, the President's budget proposes to fund emergency needs such as crop disasters, emergency watershed protection, emergency conservation and other programs through a $5.6 billion National Emergency Reserve. This reserve would cover sudden, urgent and unforeseen needs government-wide. Funds would be released from the reserve only after approval from both the President and the Congress. The President's budget also proposes approximately $1 trillion over 10 years for a reserve to meet unanticipated emergency and special needs on a government-wide basis, including the potential need for assistance to farmers above levels in existing programs, such as marketing assistance loans and loan deficiency payment programs.

The status of our major program activity in fiscal year 2001 includes:

Crop Emergency Programs

Noninsured Crop Disaster Assistance Program (NAP).—The NAP has undergone a number of legislated reforms to improve its coverage for producers of uninsured crops. The ARPA eliminated the area loss requirement for individual eligibility and provided that all types or varieties of a crop may be considered to be a single eligible crop for NAP assistance. The 2001 NAP requires producers to be more proactive, they will need to apply for individual coverage similar to basic catastrophic crop insurance, and pay a $100 service fee per crop. But they will know they are covered before disaster strikes. Since the 1995 crop year, 2,136 NAP areas have been approved and $211.7 million paid in benefits. However, benefits for fiscal year 2001 are estimated at $176.5 million.

2000 Crop Disaster Program (CDP).—The CDP compensates farmers if their losses exceed 35 percent of historic yields, providing greater benefits to those who bought insurance on their eligible crops. Unlike previous crop loss programs, the 2000 CDP payments will not be subject to a national proration factor; farmers will receive 100 percent of the approved payment. Signup began January 18 and is ongoing. To date, 200,039 producers have requested CDP benefits and 138,097 have been approved. As of April 9, nearly $1.4 billion has been paid to producers.

2000 Disaster/Quality Loss Program.—This program compensates producers for crop quality losses which are not adequately covered under the CDP. For example, durum wheat producers in North Dakota and other States have experienced deep market discounts on their crops. Such discounts are not currently reflected in the FSA schedule of premiums and discounts used to adjust production for quality losses under the CDP. Also, certain crops which were not eligible for a quality adjustment under CDP—such as hay crops—will be eligible under this special program. We expect to begin signup in May.

Apple/Potato Quality Loss Program.—This program provides $38 million to compensate apple and potato producers for quality losses due to weather or disease for both the 1999 and 2000 crops. Payments will be made regardless of whether a crop was harvested. We expect to begin signup in May.

2000 Florida Nursery Program.—The Nursery Program assists Florida producers who suffered nursery losses from October 1–December 31, 2000, due to weather, insect or disease damage. To date, 91 producers have requested benefits and 45 have been approved.

2000 Sugar Payment-in-Kind Program.—The Sugar PIK offered sugar beet producers the opportunity to divert a portion of their crop from harvest in exchange for sugar held in inventory by the CCC. Approximately 5,000 offers for over 101,000 acres—about 7 percent of the acreage planted to sugar beets—were accepted. CCC transferred over 277,000 tons of refined sugar, valued at $105.5 million, to participating producers, resulting in a $555,000 reduction in monthly CCC storage costs. The Sugar PIK Program also reduced potential forfeitures of loan collateral.

Apple Market Loss Assistance Program.—Apple Market Loss Assistance will provide nearly $100 million in payments to apple producers to help offset market losses on their 1998 and 1999 production. Signup has been extended to May 4, and we expect to begin making payments by mid-June.

Cranberry Market Loss Assistance.—This program will provide nearly $20 million to cranberry growers who suffered market losses when prices for their 1999 crop fell to a record low. Signup ended April 13, and we began making payments in late April.

Limited California Cooperative Insolvency Payment Program (Tri-Valley).—The Tri-Valley Program will make payments of $20 million to 500 members of the Tri-Valley Growers Cooperative who produced 2000 crop tomatoes, pears, peaches, and apricots and who suffered losses due to the cooperative's insolvency. Signup ended April 24.

2000 Fresh Russet Potato Diversion Program (PDP).—PDP will make payments of $10.3 million to potato growers on 2000 crop russet potatoes rendered unmarketable and diverted from normal trade channels to charitable institutions, livestock feed, or ethanol. The diversion period began April 13 and will end May 13. Signup will run from May 14 through June 13. We expect to make payments by early July.

Grazing Payments for 2001 Wheat, Barley or Oats (GRAZEOUT).—GRAZEOUT makes payments in lieu of loan deficiency payments to producers who forgo harvesting and graze out their 2001 wheat, barley, or oats acreage. Producers will receive payments estimated at $60 million by September 30, 2001, under the same terms and conditions as if they harvested a crop and applied for a loan deficiency payment.

2000 Oilseeds Program.—The Oilseeds Program provides payments to producers who, in 2000, planted an oilseed crop that is eligible for marketing assistance loans. Signup for the program ran from October 16, 2000, through January 12 of this year, and FSA county offices began issuing payments in February. Nearly $500 million in program payments have been issued to 591,695 producers in 47 States.

2000 Honey Loans.—Honey producers are eligible for nonrecourse marketing assistance loans and LDPs on their 2000 crop honey. As of April 18, FSA county offices had disbursed 726 marketing assistance loans totaling $34.7 million and 5,619 LDPs totaling $17.1 million on the 2000 honey crop.

Peanut Marketing Assistance Program (PMAP).—PMAP helps to compensate producers whose incomes have dropped in the 2000 crop year due to continued low commodity prices and increasing costs of production. Signup ran from October 2, 2000, through February 1, 2001. As of April 4, FSA county offices had disbursed $63.7 million to approximately 50,000 peanut producers in 17 States.

Tobacco Loss Assistance Program (TLAP).—TLAP provided payments of $340 million to owners or operators of flue-cured, fire-cured, burley, or cigar binder tobacco farms for which the 2000 quota or acreage was reduced due to a drop in the national marketing quota or acreage for that kind of tobacco. Growers on approximately 275,000 farms in 12 States were eligible for payments.

Tobacco Quota Holders Assistance.—This program provides supplemental assistance to quota holders who were not eligible under TLAP. OMB has only apportioned $3 million for tobacco quota holder assistance. While a request for an increase to $7 million is at OMB, it is not certain the request will be approved. Additionally, producer-owned cooperative marketing associations were allowed to fully settle their loans for 1999 crops of burley, flue-cured and cigar binder tobacco by forfeitures to the CCC. The tobacco covered by this provision is valued at $591 million.

Livestock and Dairy Emergency Programs

2000 Livestock Assistance Program (LAP).—The 2000 LAP provides assistance in counties named as primary disaster areas under a Presidential or Secretarial designation. As of April 16, more than 54,000 producers have applied for aid totaling over $270 million. Also as of April 16, 1,291 counties in 34 States more than 40 percent of all counties in the United States—have been approved for LAP. Included in the approvals are all counties in Alabama, Mississippi, and Utah, and 90 percent of the counties in Arkansas, Georgia, Louisiana, and Texas.

2000 Livestock Indemnity Program (LIP).—The 2000 LIP provides payments to producers for livestock losses during CY 2000 due to non-drought disasters in counties named in a Presidential or Secretarial disaster declaration. To date, approximately 1,050 livestock owners have requested benefits totaling $765,000. In addition, indemnity payments of up to $10 million are available to compensate contract growers who raise livestock owned by others. This program covers 1999 livestock losses, and has been extended to cover losses incurred through February 7, 2000.

American Indian Livestock Feed Program (AILFP).—AILFP is contracted as a government-to-government program to provide direct cash payments to livestock producers suffering from natural disasters on tribal lands. The program was originally funded from the sale of feed grains from disaster reserve stocks in 1977. With those funds exhausted, the program received additional funding of $12 million in fiscal year 2001 to remain available until spent. Since the program began, it has provided assistance to 27 tribes.

Poult Enteritis Mortality Syndrome (PEMS) Program.—Funded at $2 million, this program helps offset income losses suffered by contract growers as a result of an outbreak of PEMS from March 1, 2000, through April 30, 2001. When PEMS outbreaks occur, turkey producers must depopulate their turkey houses and leave them empty for two or more growing cycles. We expect about 100 contract growers to apply for benefits in early May.

Wool and Mohair Loss Assistance Program II.—Funded at nearly $20 million in 2001, the program makes direct producer payments not to exceed 40 cents per

pound for wool and mohair due to continued low market prices. Signup has been extended through May 4, and payments are slated to be made by mid-June. Payments made in fiscal year 2000 totaled $10.2 million.

Lamb Meat Adjustment Assistance Program.—In its second year, the program provides up to $30 million total, with a target of $10 million per year, in direct cash payments to help lamb and sheep growers improve their production efficiencies and the marketability of lamb meat, during a 3-year period from July 22, 1999, through July 31, 2002. As of April 16, payments for Year 2, which ends July 31, totaled nearly $3.7 million. Payments in Year 1 of the program totaled $12.7 million, for a total paid to date of nearly $15.3 million.

Dairy Market Loss Assistance Program (DMLA).—DMLA, first implemented in 1999, to assist primarily small and mid-sized dairy operations that suffered losses from 1999 to the present, as well as new dairy producers or operations in 2000. DLMA III provides supplemental payments to dairy producers who received payments in the first two years of the program. As of April 3, fiscal year 2001 payments total $655 million.

Bioenergy Program

In other actions to benefit America's farmers, FSA is implementing a Bioenergy Program in fiscal year 2001 to encourage the processing of surplus agricultural commodities for industrial uses. FSA has approved 54 agreements with 79 plants in 19 States for participation in the $150 million program. Increased bioenergy production for fiscal year 2001 as a result of the program is projected to be 246.2 million gallons of ethanol and 36.5 million gallons of biodiesel.

Cry9C Seed Corn Purchase

USDA, through CCC, is implementing a program to purchase seed corn that contains the Cry9C protein. FSA has contacted 286 seed corn companies and has offered to purchase all seed corn containing the Cry9C protein for $40 per unit. To date, 67 seed corn companies have indicated that they hold seed containing the Cry9C protein and that they want to enter into purchase contracts with CCC.

Starlink Corn Containment

On October 2, CCC offered to purchase 2000 crop Starlink corn from producers and to channel Starlink corn into industrial non-food and animal feed markets. Under this program, which was established in conjunction with EPA and FDA, CCC has purchased approximately 250,000 bushels at a cost of $310,000. Aventis Crop Science has reimbursed CCC for all costs incurred in administering this purchase program.

Additionally, CCC is monitoring disposition of Starlink corn that was not sold to CCC to ensure that it is also disposed of through appropriate uses.

Farm Loan Programs

FSA offers direct and guaranteed farm ownership and operating loans to farmers who are unable to obtain sufficient credit from private sources. FSA borrowers range from beginning farmers and ranchers who cannot qualify for conventional loans because they have insufficient financial resources to established farmers who have suffered financial setbacks from natural disasters, or whose resources are too limited to maintain profitable farming operations.

The goal of FSA's farm loan program is to assist eligible individuals and families through supervised credit, outreach and technical assistance so that they become successful farmers and ranchers. Regardless of the type of loan, FSA's financial assistance provides a safety net for borrowers who have reasonable prospects for lasting economic viability in agriculture.

The FSA farm loan portfolio is showing its best performance in many years as evidenced by direct loan delinquency which is the lowest in over 20 years at 12.3 percent. The guaranteed loan delinquency is at an all-time low of 1.83 percent, and the direct loan loss rate is the lowest since 1987. In addition, inventory property numbers are the lowest since 1980.

In fiscal years 1999 and 2000, FSA provided loans and loan guarantees totaling $7.5 billion to over 71,000 family farmers. Of this total, 24,000 were beginning and socially disadvantaged farmers, who received assistance totaling $1.9 billion.

FSA has developed ways to decrease the paperwork burden on both farmers and lenders. The emergency loan process has been streamlined from 6 to 2 weeks. Both the guaranteed and direct loan programs now have a one-page application for loans of less than $50,000. FSA also has been condensing direct loan regulations by deleting 1,200 pages of text and reducing the number of required forms by almost 30 percent. We have joined with the other service center agencies in a common Internet web site where customers of FSA, Rural Development and the Natural Resources

Conservation Service can download and complete the forms needed to participate in many agency programs and services.

In fiscal year 2001, demand for FSA's farm loan assistance remains strong. As of March 31, 2001, loans and loan guarantees totaling $1.5 billion have assisted 15,000 farmers with their credit needs. A significant portion of this loan assistance—$515 million—is being provided to 6,000 beginning and socially disadvantaged farmers. The lending season is currently at its busiest and most critical time, and FSA is working hard to rapidly process the thousands of applications coming into county offices.

For fiscal year 2002, the President's budget request will support $3.8 billion in direct and guaranteed loans. We will continue to emphasize providing assistance to beginning and socially disadvantaged farmers, and will increase the proportion of loan amounts targeted to these groups to 30 percent.

For farm operating loans, the 2002 budget provides $600 million for direct loans and $2 billion for guaranteed loans. These loan levels will serve an estimated 31,000 farmers, of whom about 14,500 will receive direct loans. The availability of farm operating loans provides farmers with short term credit to finance the costs of maintaining or improving their farm operations, such as purchasing seed, fertilizer, livestock, feed, equipment and other supplies.

For farm ownership loans, the 2002 budget provides $128 million in direct loans and $1 billion in guaranteed loans. The 2002 levels will provide almost 6,000 people with the opportunity to acquire their own farm or save an existing one. About 1,250 borrowers would receive direct loans and 4,500 would receive guaranteed loans.

The 2002 budget also proposes funding for emergency loans at $25 million, which is the same amount as appropriated for fiscal year 2001. The budget also proposes to maintain State mediation grants at the fiscal year 2001 level of $3 million.

Conservation Programs

Conservation program outlays represent the second largest major category of CCC expenditures. FSA offers a variety of these programs for our Nation's farmers and ranchers, providing needed financial assistance to protect and enhance the environment. These programs include the Conservation Reserve Program, Emergency Conservation Program, Pasture Recovery Program, Debt for Nature Program, Biomass Pilot Projects, and the Farmable Wetlands Pilot Program. Also, FSA teams with NRCS in the administration of the Environmental Quality Incentives Program.

Conservation Reserve Program (CRP).—CRP is USDA's largest conservation/environmental program. CRP's purpose is to cost-effectively assist farmers in conserving and improving soil, water, air, and wildlife resources by retiring environmentally sensitive land from agricultural production and keeping the land in long-term resource conserving cover. Acreage is enrolled into the CRP through scheduled general signups and through a continuous, noncompetitive signup.

CRP enrollment is expected to total 33.9 million acres at the end of fiscal year 2001 and reach the maximum authorized level of 36.4 million acres by December 31, 2002. Included in this total are 4.2 million cumulative acres that are projected to be enrolled under the continuous signup as well as 500,000 farmable wetland acres. Outlays for fiscal year 2002 are estimated at $1.8 billion.

As of March 2001, there were 522,480 active CRP contracts covering 33.5 million acres with associated annual rental payments of $1.5 billion. General signup activity accounted for 74 percent of the contracts, 96 percent of the acres, and 91 percent of the annual outlays. Continuous signups, including the Conservation Reserve Enhancement Program, accounted for the remainder.

There will be no general signup for CRP in 2001. However, CRP participants whose contracts are scheduled to expire on September 30, 2001 may extend the expiration date for one year.

Through mid-March 2001, over 1.4 million acres have been enrolled under continuous signup practices such as filter strips, riparian buffers, contour grass strips, and grass waterways. The continuous signup has significantly increased the enrollment of these environmentally important lands. Financial incentives to encourage participation in the continuous signup such as up-front signing bonuses and incentives for practice installation and maintenance will total up to $250 million from fiscal year 2001 through fiscal year 2002.

Continuous signup acreage also includes enrollment under the Conservation Reserve Enhancement Program (CREP), which is designed to target program benefits to address specific local and regional conservation problems. Currently, 15 States have approved CREP agreements, and another 9 States have CREP proposals pending. CREP is a results-oriented, community-centered partnership between USDA, State and tribal governments, and non-governmental groups. CREP currently ac-

counts for 2 percent of CRP contracts, less than 1 percent of the acres enrolled, and 1 percent of CRP outlays.

Emergency Conservation Program (ECP).—ECP provides emergency cost-share funding to farmers to rehabilitate farmland damaged by natural disaster and for carrying out emergency water conservation measures during periods of severe drought. During the last several years, ECP has been funded through emergency supplemental appropriations. A total of $80 million was appropriated for fiscal year 2001. As of April 16, 2001, $39.2 million in ECP funds had been allocated to States. While the Administration's budget proposes no ECP funding for fiscal year 2002, it does propose a $5.6 billion National Emergency Reserve to cover unforeseen expenditure requirements.

Pasture Recovery Program (PRP).—PRP provides payments for reestablishing permanent vegetative cover to farmers who have suffered pasture losses due to drought. PRP is funded at $40 million in fiscal year 2001. Through mid-April, $27.5 million in payments had been distributed to farmers. Signup for the fiscal year 2001 PRP began on March 26, 2001, and ends on May 11, 2001.

Debt for Nature Program (DNP).—Also known as the Debt Cancellation Conservation Program, DNP provides that farmers with FSA loans secured by real estate may qualify for cancellation of a portion of their FSA indebtedness in exchange for a conservation contract on marginal cropland and other environmentally sensitive lands for conservation, recreation, and wildlife purposes. By the end of fiscal year 2000, FSA had closed 206 conservation contracts for a total of 82,225 acres enrolled in the program.

Farmable Wetlands Pilot Program.—This program provides for the enrollment of 500,000 acres of certain wetlands and buffer acreage on a pilot basis into the CRP during 2001 and 2002. The program will operate in Iowa, Minnesota, Montana, Nebraska, North Dakota, and South Dakota. Regulations will be issued in the near future.

Biomass Pilot Projects.—Biomass pilot projects, under which CRP acres may be harvested for biomass to be used for energy production, are authorized in up to 6 States. A notice was published on October 20, 2000, providing the opportunity for those interested to submit an application for consideration by December 12, 2000. An inter-agency team recently approved pilot projects in Iowa, Minnesota, New York, and Pennsylvania.

Service Center Modernization Initiative

As part of ongoing efforts to improve service delivery, FSA has completed installation of 2,557 new AS400 computers in its field offices, replacing the aging System 36s. The AS400s permit FSA offices to have full connectivity to the USDA service center local area network and the telecommunications infrastructure, and also ensure uninterrupted FSA program delivery while software applications are migrated to a common computing environment (CCE). A fully-implemented CCE will enable employees to take full advantage of reengineered business processes and time-saving software. Over the next year, we will continue to review our field office structure to identify additional opportunities to improve efficiency, realize savings, and address the growth in electronic transaction of farm business.

Fiscal Year 2002 Budget

The current 2002 CCC budget estimates largely reflect supply and demand assumptions for the 2001 crop, based on October 2000 data. CCC net expenditures for fiscal year 2002 are estimated at $13.1 billion, down nearly $7.5 billion from a level of $20.5 billion in fiscal year 2001, and $19.2 billion below the record high of $32.3 billion in fiscal year 2000.

The net decrease in projected fiscal year 2002 CCC expenditures primarily reflects the expiration of $4.5 billion in 2001 emergency and market loss assistance authorized by the Agricultural Risk Protection Act of 2000 and the 2001 Agriculture Appropriations Act. Other components include decreases of about $1.4 billion in loan deficiency payments, nearly $300 million in Section 416 ocean transportation, and about $120 million in production flexibility contract payments.

Non-Federal county staff years are projected to decrease from 11,957 in 2001 to 11,496 in 2002 because the temporary staff years needed to carry out crop and market loss assistance programs are expected to decline modestly. However, FSA temporary staff years are expected to remain at twice the pre-farm-crisis levels of 1996 through 1998.

RISK MANAGEMENT AGENCY (RMA)

The Risk Management Agency administers the Crop Insurance Program and is USDA's primary organization for providing risk management services to farmers

and ranchers. By 2002, the Crop Insurance Program is expected to provide over $36 billion in risk protection on about 222 million acres 84 percent of the nation's acres planted to principal crops.

Significant reforms to the program were enacted in the Agricultural Risk Protection Act of 2000 (ARPA) which build on the increased participation levels of recent years. Title I of the Act contains a 5-year, $7 billion dollar initiative to make higher levels of protection more affordable and useful to producers, provide better protection to farmers suffering multi-year losses, expand risk management education opportunities, stimulate development of new risk management products, and improve program integrity.

Soon after enactment of ARPA last June, RMA implemented provisions of ARPA that lowered 2001 farmer-paid premiums, along with other changes in the program. As a result, farmers benefitted from higher levels of protection at less cost for their 2001 crops.

Under ARPA, revenue insurance plans will be much more affordable and changes to the Actual Production History (APH) system will help producers suffering multi-year losses retain a reasonable amount of insurance protection. The new APH provisions allow producers to substitute 60 percent of the applicable transitional county average yield (T-yield) when their actual yields are lower than 60 percent of that T-yield. This change can increase yield guarantees and protect producers who have suffered multiple losses by providing more coverage while continuing to assess premiums proportional with the additional risk.

RMA also acted to implement changes to the insurance fee structures required by ARPA and amended the Standard Reinsurance Agreement with reinsured companies to lower the expense reimbursement that private insurance providers receive for servicing catastrophic risk protection policies.

With the first wave of actions completed, RMA has begun implementing many of the more complex and forward-reaching provisions of Title I of ARPA aimed at expanding the crop insurance system, facilitating innovation, and improving program oversight. Currently, RMA offers 114 crop insurance products to the nation's producers.

Recent activities and accomplishments in implementing ARPA include:

Improving Compliance and Integrity

RMA has been working closely with FSA to address training of FSA personnel, consulting with FSA State Committees, claims audit and fraud referral procedures, and data reconciliation. As required by ARPA, a coordinated implementation plan was developed and signed by the Secretary on January 12, 2001, and presented to the crop insurance industry on January 18, 2001. Joint RMA/FSA teams were then expanded to include 23 participants from the reinsurance companies.

RMA plans to spend approximately $2.25 million in fiscal year 2001 to provide anti-fraud and loss adjustment training to about 2,500 State and county FSA personnel. The first phase of training FSA State Office personnel in compliance and loss adjustment procedures was held in late March. In April, the training of FSA county personnel kicked off in several locations around the country; this training will continue through June, 2001. In fiscal year 2002, training will continue with updating of information and re-certification of participants.

The team set up to develop internal communications and coordinate procedures for the two agencies met with FSA State Committees in late January, and developed the reporting processes and procedures to follow when consulting on RMA crop insurance policies and procedures. These procedures were developed into a handbook that was distributed in April and is available for viewing on FSA and RMA websites.

In the data mining area, RMA entered into a contract with Tarleton State University to develop systems and technologies to identify indicators of waste, fraud, and abuse. Once the data mining capability is implemented, RMA field offices and FSA county offices will be able to forward potential fraud, waste, and abuse issues to investigative offices. Data management technologies will make compliance verification more accurate, efficient, and timely, thus allowing RMA to oversee a greatly expanded program. In April, strategies were developed for data reconciliation.

To reduce losses through the intentional filing of false or inaccurate claims with the Federal Crop Insurance Corporation (FCIC), Congress has encouraged extensive use of administrative sanctions available through ARPA and other statutes. New data management and referral processes, investigative capabilities, and cooperative efforts with reinsurance companies provide additional resources for identifying potential sanctions and closing cases. ARPA also adds new categories to the sanctions list. Third party program abusers, such as elevator operators, could not be reached

under previous sanctions authorities. Administrative sanctions provide an effective and direct way for FCIC to take action against program abusers.

Research and Development

RMA is currently implementing a number of changes in line with ARPA requirements for greater use of private sector expertise in developing new risk management tools.

The agency has awarded four contracts to help develop new insurance plans for currently insured crops, as well as new crop policies and new types of risk management programs. The contractors will help develop new products using these tentative priorities: Pasture, Rangeland and Forage Program feasibility study; Cost of Production Pilot Program; Revenue Coverage Plans study; Multi-Year Coverage study; California Fresh Vegetables; Cotton Quality Adjustment; Cotton Boll Weevil Eradication study; Tropical Crops and Trees; Coverage for Direct-Marketed Crops; Organic Crops study; and Silage Sorghum Program (insurance of dual-purpose sorghum harvested as silage). RMA also has a cooperative agreement with the University of Alaska Fairbanks Agricultural and Forestry Experiment Station to conduct initial research into the feasibility of developing a risk management strategy for wild sockeye salmon that addresses the economic needs of Bristol Bay fishermen.

New Pilot Programs

A Raspberry/Blackberry Crop Insurance Pilot Program will be implemented effective with the 2002 crop year in 7 counties in California, Oregon, and Washington.

Should the study on wild sockeye salmon indicate that it is indeed feasible to develop an insurance product addressing the economic needs of Alaskan fishermen, development will begin in fiscal year 2002.

A Livestock Risk Protection Program has been developed by a private insurance company and presented to the FCIC Board; approval is pending further development..

Education and Risk Management Assistance

To expand risk management education and provide special emphasis to underserved regions, RMA is funding producer education initiatives through the Cooperative State Research, Education, and Extension Service on the full range of risk management activities. These include futures, options, agricultural trade options, crop insurance, cash forward contracting, debt reduction, production diversification, farm resources risk reduction, and other risk management strategies.

With input from regional universities, State departments of agriculture, grower organizations, crop insurance and farm credit businesses, and other USDA offices, RMA is implementing a 5-year strategic plan and one-year action plan outlining the direction and focus of risk management education plans and activities for 15 underserved States. The program will be delivered primarily through these private partners, allowing RMA to leverage Federal funding with the resources and local expertise of these groups. A key initial focus is encouraging the use of the Adjusted Gross Revenue (AGR), or "whole farm" insurance in these areas. As of April 13, approximately 150 AGR policies have been sold in 11 under-served Northeast States.

In addition, RMA is implementing plans which target producers of specialty crops and under-served commodities. RMA continues to partner with public and private sector organizations which have the capacity to reach these producers with local level educational programs such as workshops and training sessions. During fiscal year 2000, 30,095 producers attended 858 RMA-coordinated risk management education sessions offered throughout the nation. For fiscal year 2001, it is estimated that 50,000 producers will attend 1,500 planned risk management education sessions to be held across the country for targeted producers and education partners.

Options Pilot Program

RMA announced a major expansion of the Dairy Options Pilot Program (DOPP), the innovative cost-sharing program that helps dairy farmers put a "floor" under the price they receive for milk using the options markets. USDA subsidizes both premiums and brokerage fees for participating dairy farmers. USDA will spend about $24 million over the next 2 years expanding this program from 61 counties to 300 counties in 39 States.

Rounds I and II of DOPP have been completed and Round III will be conducted in fiscal year 2001. It is estimated that in Round III, which will include counties/States from Rounds I and II, plus an additional 176 counties, 14,000 producers will participate in the training and purchase an estimated 6,000 milk Put options.

Electronic Availability of Crop Insurance Information

RMA has received from each of the insurance providers the required E-business Implementation plan in response to the Freedom to E-File Act. These plans are currently being reviewed and evaluated.

Improved Storage & Management of Livestock and Poultry Waste

RMA is in the process of finalizing a cooperative agreement with America's Clean Water Foundation to study market-based mechanisms to assist producers with improved storage and management of livestock and poultry waste. The estimated $1.7 million study will describe livestock and poultry handling and storage systems, failures in these systems and associated costs. The study also will identify existing market-oriented mechanisms that may be applied to assist producers to better manage the handling and storage of animal waste, and mitigate the environmental damages caused by system failures.

Management of Corporation

ARPA restructured the composition of the FCIC Board of Directors, increased Board membership from 7 to 10, established a term of office, and required the appointment of 6 private sector members.

ARPA also requires the Board to establish procedures for use in reviews of policies, plans of insurance, and related materials by independent reviewers and to contract with at least 5 persons to review each program. New products under review and Board consideration include a Livestock Risk Protection Program, a Timber Crop Coverage Program, and a Group Risk Protection Program. The Board also directed FCIC to conduct a study of localized prevented planting problems and to develop guidelines and proposed modifications to existing prevented planting provisions.

Administrative and Operating Expenses

In fiscal year 2002, discretionary account expenses are estimated to increase by $9.3 million from the fiscal year 2001 level of $65.5 million. The increase includes $7.9 million for improvements in information technology systems, such as data mining, e-commerce, and data storage. These changes are needed to meet RMA's changing responsibilities resulting from the implementation of ARPA, particularly with regard to improved compliance and Internet applications for producers to purchase crop insurance on-line.

FCIC Fund

The fiscal year 2002 budget for the FCIC Fund proposes an estimated $232.3 million increase in program spending over the fiscal year 2001 estimate of $2.8 billion.

Premium subsidy is expected to increase to $1.9 billion due, in part, to an estimated increase in participation. The increase in premium subsidy, of which $190.2 million of the increase is for CAT and $1.7 billion is for additional coverage, will enable us to provide producers a more cost-effective means of managing their risk.

Delivery expenses or administrative and operating expense reimbursements provided to approved insurance providers, are based on 24.5 percent of the estimated total premium for most non-CAT policies for fiscal year 2002 in accordance with the Agricultural Research, Extension, and Education Reform Act of 1998. As a result of increased total premium, RMA anticipates delivery expenses will amount to $677.8 million, compared with the fiscal year 2001 estimate of $461.2 million. The increase reflects increased program participation.

The fiscal year 2002 mandatory funding for ARPA initiatives is $58 million, a decrease of $9.5 million below the fiscal year 2001 estimates. The $58 million includes $3.5 million for improving program compliance and integrity; $30 million for research and development; $11 million for pilot programs for livestock and wild salmon; $10 million for education and risk management assistance, and $3.5 million for policy consideration and implementation.

FOREIGN AGRICULTURAL SERVICE (FAS)

The Foreign Agricultural Service administers a variety of export promotion, food assistance and foreign market development programs. The FAS mission is to serve U.S. agriculture's international interests by expanding export opportunities for U.S. agricultural, fish, and forest products and promoting world food security.

U.S. Trade Prospects

U.S. agricultural exports rebounded to $50.9 billion in fiscal year 2000, an increase of $1.7 billion over 1999. FAS expects this trend to continue in fiscal year 2001, with agricultural exports forecast to reach $53 billion, up $2.1 billion over

2000. Much of the gain is expected in Asia, as that region's economies continue to improve from the financial crisis of 1997–99. Export prospects are promising in both value and volume terms for most major commodities, including corn, wheat, soybeans, soybean meal, livestock products, and horticultural products.

FAS Program Activities

To support the goal of expanding export opportunities for our nation's producers and agribusinesses, FAS continues to use long-standing export programs vigorously. For example, the export credit guarantee programs facilitated sales of more than $3 billion in U.S. agricultural products last year.

The GSM–102 program helped U.S. exporters register sales of more than $400 million to Indonesia despite that country's economic uncertainties. The program helped U.S. exporters continue to develop markets in the Andean region, with U.S. sales of over $122 million worth of feed grains and $100 million of wheat.

The GSM–103 program helped U.S. exporters sell over $13 million worth of wheat to Jordan and to re-enter the grain market in Tunisia with sales of $9 million.

The Supplier Credit Guarantee Program was used for the first time by importers in West Africa and Central America, resulting in sales of over $18 million to buyers in the West Africa Region, and about $14.5 million to buyers in Central America.

The first guarantee was issued under the Facility Guarantee Program for a project to improve a grain elevator in the port of Veracruz, Mexico. When this project is completed, the facility will increase its capacity to import bulk grains from 5,000 to 20,000 tons per hour. It is expected to handle nearly 19 million tons of grain between 2000 and 2004, with about 87 percent of it coming from the United States.

With the aid of the Dairy Export Incentive Program (DEIP), U.S. exporters sold more than 95,000 tons of dairy products in fiscal year 2000. The Commodity Credit Corporation awarded more than $78 million in bonuses to help U.S. dairy exporters meet prevailing world prices and develop foreign markets.

Use of the Export Enhancement Program was limited in 2000 because of market conditions, with bonuses of about $1.6 million awarded for sales of more than 2,500 tons of frozen poultry.

We continue to stress the importance of market development. In 2000, FAS allocated $90 million to 65 U.S. trade organizations, State regional groups, and cooperatives for export promotion activities under the Market Access Program (MAP), and allocated $27.5 million to 25 trade organizations under the Foreign Market Development (FMD) program.

FAS introduced 735 Cochran Fellows from over 75 countries to U.S. products and policies in 2000. These Fellows met with U.S. agribusiness; attended trade shows, policy and food safety seminars; and received technical training related to market development. The Cochran Fellowship Program provides USDA with a unique opportunity to educate foreign governments and private sectors not only about U.S. products, but also about U.S. regulations and policies on critical issues such as food safety and biotechnology.

On the trade policy front, USDA works to open, expand, and maintain markets for U.S. agriculture. FAS was a key player in the successful launch of negotiations in March 2000 to further liberalize global agricultural trade under the World Trade Organization (WTO). In June 2000, the United States presented its comprehensive proposal to establish a framework for the new agricultural negotiations.

FAS continues to monitor aggressively foreign countries' compliance with Uruguay Round Agreement commitments. In calendar year 2000, the United States raised significant compliance issues with other WTO members, addressing policies that affected about $450 million in U.S. agricultural trade.

To support both our export mission and our food security mission, FAS has used food aid to move commodities from the U.S. marketplace to needy people around the world.

Over the past two years (Fiscal Year 1999 and fiscal year 2000 food aid programs), FAS programmed more than 12 million metric tons in food aid to help feed millions of hungry people in more than 80 countries around the world—from the unprecedented assistance package for Russia to food relief for Kosovo refugees, famine victims in North Korea, and hurricane victims in Central America and the Caribbean. Total U.S. contributions accounted for more than 75 percent of total global emergency food aid to the Horn of Africa this past year, helping to avert large-scale starvation.

Under the authority of section 416(b) of the Agricultural Act of 1949, as amended (Section 416), the Commodity Credit Corporation (CCC) donated about $500 million worth of commodities in fiscal year 2000, including about 2.6 million tons of wheat and wheat products, 168,000 tons of corn, 141,000 tons of rice, 130,000 tons of soy-

bean oil, and 26,000 tons of dry milk. These U.S. surpluses were put to good use, helping to relieve hunger and suffering abroad.

Concessional sales under Public Law 480, Title I, totaled about 1 million metric tons in fiscal 2000, including 500,000 metric tons of U.S. corn, 163,000 tons of soybean meal, more than 150,000 tons of wheat, and 135,000 tons of rice, among other products. These commodities, valued at an estimated $157 million, went to eight countries. Another 413,000 tons of various U.S. commodities were donated to 12 countries under the Food for Progress program, with Title I-funded Food for Progress donations accounting for almost two-thirds of this tonnage.

In addition, FAS has undertaken a pilot Global Food for Education (GFE) Initiative. Under this year's $300 million pilot, USDA is donating approximately 630,000 metric tons of surplus U.S. agricultural commodities for use in school feeding and pre-school nutrition projects in 38 developing countries. School feeding programs help will reach 9 million children, using donated corn, rice, soybeans, soybeans and vegetable oil, wheat products and nonfat dry milk.

In addition to food aid activities, FAS continues to serve as the coordinator for the U.S. Government's food security committee. Last September, the agency issued a national food security progress report that outlines how the United States is working to address our international and domestic food security goals.

Priorities for 2001 and 2002

Faced with competing demands for budgetary resources, a strong U.S. dollar and continued aggressive spending on market promotion by our competitors, USDA must redouble its efforts to improve the outlook for U.S. agricultural exports.

Topping the list of priorities for this year is moving forward in the multilateral trade negotiations on agriculture under the WTO. As part of the negotiating process, the U.S. must engage the developing world in the creation and implementation of appropriate trading rules and guidelines. This undertaking will take time, but it will be worth the investment. These countries represent our future growth markets. If we are to realize our goal of liberalizing trade through multinational bodies such as the WTO, we cannot ignore the concerns of developing countries, which make up the majority of WTO members.

FAS will continue to work with the countries that would like to join the WTO. While membership in the WTO is a high priority, we will continue to insist that these accessions be made on commercially viable terms that provide trade and investment opportunities for U.S. agriculture. This means that acceding countries, such as China, will need to implement trade policies and regulations that are fully consistent with WTO rules and obligations.

Another important area of work for FAS is the negotiation to establish the Free Trade Area of the Americas (FTAA). The FTAA is intended to be a comprehensive free trade agreement between the 34 democracies in the Western Hemisphere. Negotiations began in 1998 and are expected to conclude by 2005. By concluding the FTAA, the U.S. will gain liberalized access to a region of 675 million people with a combined consumer buying power of $1.5 trillion.

FAS also is actively participating in the Asia Pacific Economic Cooperation (APEC) forum. Asia represents an important market for U.S. agriculture, and FAS is working with other APEC members to promote economic policies in the region to moderate economic shocks like the Asian economic crisis of 1997–98. We expect APEC to serve as the launching point for promoting continued trade liberalization within the region and in the WTO.

Another priority is how we deal with the trade issues surrounding products produced through biotechnology. Today's market environment for biotech products is unsettled. The demand by some users for non-biotech commodities only, the resulting calls for segregation by some handlers, and the indications that premiums and discounts may be appearing for non-biotech vs. biotech commodities are bound to have an effect on farmers' planting decisions.

This issue is likely to be a dominant one for U.S. agriculture in the immediate years ahead, whether in the WTO or in our bilateral relationships with customer and competitor nations alike. Our focus will be in making sure that biotech approval regimes, wherever they exist, are transparent, timely, predictable, and science-based.

FAS also will be working to improve the way we carry out our market development programs. The agency is currently in the process of refining its global marketing strategy that will target markets that offer the most growth opportunity. This will require a thorough evaluation of the U.S. opportunities and challenges in those markets, and close coordination with private industry partners. In the next 10 years, the growth markets are likely to be the developing countries in Asia (especially China and South East Asia, and possibly India) and Latin America. Gaining

market share in these high-growth markets is the most effective way to increase market share globally.

The global marketing strategy is also instrumental in the agency's ongoing review of overseas office locations and staffing. FAS is committed to strengthening overseas staffing to ensure that the United States is positioned to take advantage of the market opportunities created by market access initiatives as well as new opportunities offered by emerging growth markets.

Alleviating hunger and malnutrition in the world also presents a significant challenge. The global marketing strategy includes identifying the food security challenges that currently exist and are likely to emerge over the next decade. FAS will continue to use USDA's food aid programs to help developing countries meet their food needs.

Administrative and Operating Expenses

The fiscal year 2002 budget proposes a funding level of $125.8 million for FAS. This represents an increase of $6.4 million from this fiscal year and supports several important agency initiatives.

First, in order to strengthen the agency's market intelligence capabilities at our overseas posts, $2.7 million is requested to provide additional support in 14 overseas locations where workload demands have become acute, including China, the Philippines, Colombia, Argentina, Thailand, and Turkey. This action will enable FAS to focus on the government policies and issues that can affect the competitiveness of U.S. exports, particularly competitor activities within that market, host country compliance with trade rules, and the formation of cooperative links for the upcoming WTO trade round.

An additional $750,000 and 10 additional staff years are requested to improve FAS' ability to address and resolve technical trade issues. Technical trade issues, such as those related to food safety and biotechnology, have become the fastest growing and most sensitive trade issues in U.S. agriculture today. FAS is responsible for assuring regulatory actions taken by our trading partners do not impede our exports and comply with the WTO sanitary and phytosanitary disciplines.

Export Programs

For export programs, the fiscal year 2002 budget includes the following:

Export Credit Guarantee Programs.—The budget includes a projected overall program level of $3.9 billion for export credit guarantees in fiscal year 2002. As in previous years, the budget estimates reflect actual levels of sales expected to be registered under the programs rather than authorized program levels. Of the total program level, $3.4 billion will be made available under the GSM–102 program and $100 million will be made available under the GSM–103 program. For supplier credit guarantees, the budget includes an estimated program level of $330 million and an estimated program level of $95 million for facility financing guarantees.

Foreign Market Development.—The fiscal year 2002 budget includes CCC funding of $27.5 million for the Foreign Market Development (Cooperator) Program and $2.5 million for the Quality Samples Program, both unchanged from this year. Under the Quality Samples Program, samples of U.S. agricultural products are provided to foreign importers in order to overcome trade and marketing barriers. This program is carried out through commodity organizations and agricultural trade associations.

Market Access Program (MAP).—The budget provides funding for MAP in 2002 at the maximum authorized level of $90 million, unchanged from fiscal year 2001. Under MAP, CCC funds are used to reimburse participating organizations for a portion of their costs of carrying out overseas marketing and promotional activities.

Public Law 480.—For fiscal year 2002, the budget includes a total program level for all titles of Public Law 480 food assistance of $995 million, which is expected to provide approximately 2.7 million metric tons of commodity assistance. In the case of Public Law 480 Title I credit sales, appropriated funding has been continued at the fiscal year 2001 level. However, the Title I credit level is reduced due to higher estimated subsidy costs for the program which result from changes in assumed county allocations and financial terms.

Export Enhancement Program (EEP).—World supply and demand conditions have limited EEP programming in recent years. However, the fiscal year 2002 budget does include a program level of $478 million for the EEP, the maximum level authorized, and the awarding of EEP bonuses can be resumed whenever market conditions warrant.

Dairy Export Incentive Program (DEIP).—The budget assumes a DEIP program level of $42 million for fiscal year 2002, slightly above the fiscal year 2001 estimate of $34 million. These levels are reduced from those of recent years. A major factor in the decline is the sharp drop since 1999 in the average subsidy rate for nonfat

dry milk, the largest category of dairy products exported under DEIP. This development reflects higher world prices for nonfat dry milk and greater competitiveness for U.S. product in world markets.

The future offers continued opportunity for expansion of U.S. agricultural exports and trade. Strengthening our ability to compete globally has the direct payoff of increasing farm incomes and supporting rural economies.

Mr. Chairman, this concludes my statement. I will be glad to answer any questions.

PREPARED STATEMENT OF PHYLLIS W. HONOR

Mr. Chairman and members of the Subcommittee, I am pleased to testify in support of the President's fiscal year 2002 budget for the Risk Management Agency (RMA). The first year of the new millennium was a very good one for RMA and the farmers we serve. During it, we provided farmers approximately $34.3 billion of protection on nearly 205 million acres through 1.3 million policies. Loss payments to hard hit farmers totaled almost $2.5 billion. Further, with crop insurance guaranteeing a minimum, farmers across the nation were able to obtain operating loans and market their crops more aggressively.

Building upon the increased levels of participation in recent years—Congress passed the Agricultural Risk Protection Act of 2000 (ARPA). Title I of that law contains a five-year, $7 billion initiative to make higher levels of protection more affordable and useful to producers, provide better protection to farmers suffering multi-year losses, expand risk management education opportunities, stimulate development of new risk management products, and improve program integrity.

Within days of enactment last June, RMA issued a package of administrative actions that lowered 2001 farmer-paid premiums and implemented other key provision of the new legislation. Most of these changes were finalized by RMA before the June 30 contract change date for fall-planted crops. As a result, farmers planting crops last fall immediately benefitted from higher levels of protection at less cost.

Under ARPA, revenue insurance plans will be much more affordable because premium subsidy now applies to both yield and price risks covered by the policy. Prior to the new law, producers paid 100 percent of the rate associated with the price. Further, changes to the Actual Production History (APH) system will help producers suffering multi-year losses retain a reasonable amount of insurance protection. The new APH provisions allow producers to substitute 60 percent of the applicable transitional (county average) yield (T-yield) when their actual yields are lower than 60 percent of that T-yield. This change can increase yield guarantees and protect producers who have suffered multiple losses by providing more coverage while continuing to assess premiums proportional with the additional risk.

RMA also acted to implement changes to the insurance fee structures required by ARPA and amended the Standard Reinsurance Agreement to lower the expense reimbursement that private insurance providers receive for servicing catastrophic risk protection policies.

With the first wave of actions completed, we have begun implementing many of the more complex and forward-reaching provisions of Title I aimed at expanding the crop insurance system, facilitating innovation, and improving program oversight. Some of these will unfold over the next several months, some over the next several years. Today, I would like to highlight our recent progress in implementing ARPA.

—*Improving Program Integrity.*—RMA has been working closely with the Farm Service Agency (FSA) to address training of FSA personnel, consultation with FSA State Committees, claims audit, fraud referrals, and data reconciliation. Five teams were developed to resolve operational details—they focused their tasks on developing internal communications and procedures for the two agencies to work together at the field level. As required by ARPA, a Coordinated Plan for Implementation was developed and signed by Secretary Glickman on January 12, 2001, and presented to the crop insurance industry on January 18, 2001. The teams were then expanded to include insurance company participants.

—RMA plans to spend approximately $2.25 million over the next year to provide anti-fraud and loss adjustment training to about 2,500 county and State FSA personnel. RMA compliance and oversight training began in late March, and included review of the Consultation, Referrals, and Claims Audit procedures. These procedures were developed into a handbook that will be distributed in April.

—In the data mining area, RMA entered a $5 million contract with Tarleton State University to develop systems and technologies to identify indicators of

waste, fraud, and abuse. Once the data mining capability is implemented, RMA field offices and FSA county offices will be able to forward potential fraud, waste, and abuse cases to investigative offices. The data management technologies will allow RMA to easily query over 25 million records to assess the need for individual analysis. Data mining will make compliance verification more accurate, efficient, and timely, thus allowing RMA to oversee a greatly expanded program.

—*Research and Development.*—RMA is currently implementing changes in program development required by ARPA. The bill requires the research and development of new risk management programs through partnerships and contracts. A comprehensive training program has been set in motion to provide a series of classes on contracting skills. These classes will give RMA staff needed information and skills to move forward in developing contract vehicles to implement ARPA. RMA is also working to retool its workforce and equip them with the knowledge and skills necessary to be successful in the new culture and way of doing business.

—The training that has been provided to date has already had significant impact on RMA's ability to accomplish tasks via contract. For example, RMA awarded four contracts to help develop new plans of crop insurance for currently insured crops, new crop policies, and new types of risk management programs. The contractors selected will help develop new products using these tentative priorities: Pasture, Rangeland and Forage Program, Cost of Production Policy, Revenue Coverage Plans (report), Multi-Year Coverage (report), California Fresh Vegetables, Cotton Quality Adjustment, Cotton Boll Weevil Eradication (study), Tropical Crops and Trees, Coverage for Direct-Marketed Crops, Organic Crops (report), and Silage Sorghum Program (insurance of dual-purpose sorghum harvested as silage).

—*Dairy Options Pilot Program (DOPP).*—RMA announced a major expansion of DOPP, the innovative cost-sharing program that helps dairy farmers put a "floor" under the price they receive for milk using the options markets. USDA subsidizes both premiums and brokerage fees for participating dairy farmers. USDA will spend about $24 million over the next two years expanding this program. The program will expand from 61 counties to 300 counties in 39 States. A full list of participating counties is available at www.rma.usda.gov.

—*Education and Risk Management Assistance.*—ARPA provisions include expanding risk management education and providing special emphasis to under-served regions. To comply with the requirements of ARPA, RMA provided $5 million to the Cooperative State Research, Education, and Extension Service this spring for the purpose of educating agricultural producers about the full range of risk management activities. These activities include futures, options, agricultural trade options, crop insurance, cash forward contracting, debt reduction, production diversification, farm resources risk reduction, and other risk management strategies.

—With input from regional universities, State departments of agriculture, grower organizations, crop insurance and farm credit businesses, and other USDA offices, RMA developed, and is currently implementing, a five-year strategic plan and one-year action plan outlining the direction and focus of risk management education plans and activities for 15 under-served States. The program will be delivered primarily through these private partners, allowing RMA to leverage the effectiveness of Federal funding with the unique resources and local expertise of these groups. A key initial focus was on encouraging the use of the Adjusted Gross Revenue, or "whole farm" insurance in these areas. The announcement by Secretary Glickman of the following 15 under-served States allowed RMA to hit the ground running. The under-served States include: Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, West Virginia, Nevada, Utah, and Wyoming.

—In addition, RMA has developed one-year action and five-year strategic plans which target producers of specialty crops and under-served commodities. RMA has and continues to partner with public and private sector organizations who have the capacity to reach these producers with local level educational programs such as workshops and training sessions.

ADMINISTRATIVE AND OPERATING (A&O) EXPENSES

Discretionary account expenses are estimated to increase by $9.3 million from the fiscal year 2001 level of $65.5 million. This increase includes $2.8 million for data mining, data warehousing, and other data management technologies to increase

compliance and integrity of the crop insurance program; $1.8 million for training and travel costs related to increased and revised responsibilities of RMA personnel; $1.6 million for public information and civil rights activities aimed at increasing participation in the crop insurance program of women and minorities, and ensuring that under-served and socially disadvantaged producers have full access to RMA programs; $1.7 million for information technology data systems to meet additional and increasing demands of the ARPA requirements; and $1.4 million for pay costs, of which $351,000 is for the annualization of the fiscal year 2001 pay raise and $1.1 million is for the anticipated fiscal year 2002 pay raise.

FCIC FUND

The fiscal year 2002 budget for the FCIC Fund proposes an estimated $232.3 million increase in program spending over the fiscal year 2001 estimate of $2.8 billion.

Premium subsidy is expected to increase by $190.2 million due, in part, to an estimated increase in participation. The premium subsidy provided by the Federal government ranges from 38 to 67 percent, depending on coverage levels. The government pays 100 percent of the catastrophic coverage (CAT) premium. The $1.9 billion in premium subsidy, of which $232.2 million is for CAT and $1.7 billion is for additional coverage, assists in providing producers a cost-effective means of managing their risk.

Delivery expenses, or administrative and operating expense reimbursements provided to approved insurance providers, are based on 24.5 percent of the estimated total premium for most non-CAT policies in fiscal year 2002 in accordance with the Agricultural Research, Extension, and Education Reform Act of 1998. As a result of increased total premium, RMA anticipates delivery expenses in the amount of $677.8 million, compared with the fiscal year 2001 estimate of $461.2 million.

RMA also expects excess losses, which are based on calculations of increased premium and program losses, to increase by $48 million to a level of $408 million. This estimate supports a loss ratio of 1.075 and is authorized under the appropriation language "such sums as may be necessary." Without these funds, which directly support the mission and goal of the Agency, FCIC would be unable to fully fund expected indemnities, thereby weakening producers' safety net.

The fiscal year 2002 budget assumes $58 million to fund ARPA initiatives. The $58 million includes funds for: improving program compliance and integrity ($3.5 million), research and development ($30 million), pilot programs for livestock and wild salmon ($11 million), education and risk management assistance ($10 million), and policy consideration and implementation ($3.5 million).

CONCLUSION

Congress first authorized Federal crop insurance in the 1930s along with other initiatives to help agriculture recover from the combined effects of the Great Depression and the Dust Bowl. FCIC was created in 1938 to carry out the program and, initially, was started as an experiment. Crop insurance activities were mostly limited to major crops in the main producing areas.

Within the past decade, covered acres have increased from 80 million to over 200 million, from one insurance product to dozens, from a few crops to approximately 120. The program has nearly quadrupled in size. In 1999 and 2000, insurers quickly and efficiently paid out in excess of $4.8 billion to cover losses of farmers.

At the same time RMA is directing a growing program, we are dramatically changing the way in which we bring new products to market, conduct outreach, and provide oversight. The ARPA has improved the program's ability to be a broad and effective means for producers to manage their production risk. RMA has responded deliberately and methodically to this challenge, and we believe we are well on track to implement the new provisions in a timely and farmer-friendly way. We are committed to providing producers with effective crop insurance coverage at an affordable price. Crop Insurance is one of the tools of a farm safety net that can best help farmers deal with the changing nature of agriculture in the 21st century.

We appreciate your continued support as we transform our Agency and our programs to better serve the risk management needs of the American farmer.

PREPARED STATEMENT OF MATTIE R. SHARPLESS, ACTING ADMINISTRATOR, FOREIGN AGRICULTURE SERVICE

Mr. Chairman, members of the Subcommittee, I appreciate the opportunity to review the work of the Foreign Agricultural Service (FAS) and to present the President's budget request for FAS programs for fiscal year 2002.

U.S. Trade Prospects

U.S. agricultural exports rebounded to $50.9 billion in fiscal year 2000, an increase of $1.7 billion over 1999. FAS expects this trend to continue in fiscal year 2001, with agricultural exports forecast to reach $53 billion, up $2.1 billion over fiscal year 2000. Much of the gain is expected in Asia, as that region's economic growth continues to rebound from the financial crisis of 1997–99. Export prospects are promising in both value and volume terms for most major commodities, including corn, wheat, soybeans, soybean meal, livestock products, and horticultural products.

The FAS mission remains constant: we are committed to expanding export opportunities for U.S. agricultural, fish, and forest products, and to helping in the alleviation of world hunger and food insecurity. Given today's budgetary environment, these goals must be accomplished through better public/private sector collaboration, strategic planning, greater use of technology, and resource management.

FAS Program Activities

To support our goal of expanding export opportunities for U.S. agricultural, fish, and forest products, we continue to use our long-standing export programs vigorously. For example, the export credit guarantee programs facilitated sales of more than $3 billion in U.S. agricultural products last year. The GSM–102 program helped U.S. exporters register sales of more than $400 million to Indonesia despite that country's economic uncertainties. The program helped U.S. exporters continue to develop markets in the Andean region, with U.S. sales of over $122 million worth of feed grains and $100 million of wheat. The GSM–103 program helped U.S. exporters sell over $13 million worth of wheat to Jordan and to re-enter the grain market in Tunisia with sales of $9 million. The Supplier Credit Guarantee Program was used for the first time by importers in West Africa and Central America, resulting in sales of over $18 million to buyers in the West Africa Region, and about $14.5 million to buyers in Central America. The first guarantee was issued under the Facility Guarantee Program for a project to improve a grain elevator in the port of Veracruz, Mexico. When this project is completed, the facility will increase its capacity to import bulk grains from 5,000 to 20,000 tons per hour. It is expected to handle nearly 19 million tons of grain between fiscal year 2000 and fiscal year 2004, with about 87 percent of it coming from the United States.

With the aid of the Dairy Export Incentive Program (DEIP), U.S. exporters sold more than 95,000 tons of dairy products in fiscal year 2000. The Commodity Credit Corporation awarded more than $78 million in bonuses to help U.S. dairy exporters meet prevailing world prices and develop foreign markets. Use of the Export Enhancement Program was limited in 2000 because of market conditions, with bonuses of about $1.6 million awarded for sales of more than 2,500 tons of frozen poultry.

We continue to stress the importance of market development. In 2000, we allocated $90 million to 65 U.S. trade organizations, State regional groups, and cooperatives for export promotion activities under the Market Access Program (MAP), and allocated $27.5 million to 25 trade organizations under the Foreign Market Development (FMD) program.

The Cochran Fellowship Program provides USDA with a unique opportunity to educate foreign governments and private sectors, not only about U.S. products, but also about U.S. regulations and policies on critical issues such as food safety and biotechnology. FAS introduced 735 Cochran Fellows from over 75 countries to U.S. products and policies in 2000. These Fellows met with U.S. agribusinesses; attended trade shows, policy and food safety seminars; and received technical training related to market development.

On the trade policy front, USDA works to open, expand, and maintain markets for U.S. agriculture. FAS was a key player in the successful launch of negotiations in March 2000 to further liberalize global agricultural trade under the World Trade Organization (WTO). In June 2000, the United States presented its comprehensive proposal to establish a framework for the new agricultural negotiations. In June 2000, the United States tabled a credible and well-received comprehensive proposal which called for the substantial reduction of tariffs and trade-distorting domestic support, and the elimination of export subsidies.

FAS continues to monitor aggressively foreign countries' compliance with Uruguay Round Agreement commitments. In calendar year 2000, the United States raised significant compliance issues with other WTO members, addressing policies that affected about $450 million in U.S. agricultural trade.

To support both our export mission and our food security mission, we have used food aid to move commodities from the U.S. marketplace to needy people around the world.

Over the past two years (fiscal year 1999 and fiscal year 2000 food aid programs), FAS programmed more than 12 million metric tons in food aid to help feed millions of hungry people in more than 80 countries around the world—from the unprecedented assistance package for Russia to food relief for Kosovo refugees, famine victims in North Korea, and hurricane victims in Central America and the Caribbean. Total U.S. contributions accounted for more than 75 percent of total global emergency food aid to the Horn of Africa this past year, helping to avert large-scale starvation.

Under the authority of Section 416(b) of the Agricultural Act of 1949, as amended (Section 416), the Commodity Credit Corporation (CCC) donated about $500 million worth of commodities in fiscal year 2000, including about 2.6 million tons of wheat and wheat products; 168,000 tons of corn; 141,000 tons of rice; 130,000 tons of soybean oil; and 26,000 tons of non-fat dry milk. These U.S. surpluses were put to good use, helping to relieve hunger and suffering abroad.

Concessional sales under Public Law 480, Title I, totaled about 1 million metric tons in fiscal year 2000, including 500,000 metric tons of U.S. corn; 163,000 tons of soybean meal; more than 150,000 tons of wheat; and 135,000 tons of rice, among other products. These commodities, valued at an estimated $157 million, went to eight countries. Another 413,000 tons of various U.S. commodities were donated to 12 countries under the Food for Progress program, with Title I-funded Food for Progress donations accounting for almost two-thirds of this tonnage.

In addition, we have undertaken a pilot Global Food for Education (GFE) Initiative. This year, USDA is donating approximately 630,000 metric tons of surplus U.S. agricultural commodities for use in school feeding and pre-school nutrition projects in developing countries. School feeding programs help assure that children attend and remain in school, improve childhood development and achievement, and thereby contribute to more self-reliant, productive societies.

In addition to our food aid activities, FAS continues to serve as the coordinator for the U.S. Government's food security committee. Last September, we issued a national food security progress report that outlines how the United States is working to address our international and domestic food security goals.

Priorities for fiscal year 2001 and fiscal year 2002

Faced with competing demands for budgetary resources, a strong U.S. dollar and continued aggressive spending on market promotion by our competitors, we must redouble our efforts to improve the outlook for U.S. agricultural exports. For this year, we plan to continue to:

—Pinpoint constraints to exports of U.S. agricultural, fish, and forest products;
—Work to remove trade barriers and trade-distorting practices;
—Safeguard U.S. agricultural interests by advocating strongly U.S. policies in the international community;
—Help producers, processors, and exporters to strengthen their export knowledge and skills;
—Ensure that the U.S. farm, forest and fishery sectors have timely and complete intelligence about emerging market opportunities;
—Inform foreign buyers about the superior quality and reliable quantities of agricultural products offered by U.S. producers, and educate them about how to locate U.S. products;
—Use our export credit guarantee programs to reach new customers for U.S. agriculture;
—Use our food aid authorities to help hungry people overseas and farmers here at home;
—Use USDA export assistance programs, such as the Foreign Market Development Program and the Market Access Program, effectively to pursue export opportunities; and
—Work with emerging markets and developing countries to promote economic development to help meet the U.S. commitment to reduce by half the number of food insecure persons by 2015.

I would like to take a few moments to discuss our top priorities for fiscal years 2001 and 2002.

At the top of our list is moving forward in the multilateral trade negotiations on agriculture under the WTO. With the submission of our comprehensive proposal last June, the United States has taken a leading role in the WTO negotiations underway in Geneva. The WTO multilateral negotiations are the best place to address needed reforms in world agriculture because it is only in the WTO that we have broad disciplines on market access, subsidies, and technical measures.

As part of the negotiating process, we must engage the developing world in the creation and implementation of appropriate trading rules and guidelines. This un-

dertaking will take time, but it will be worth the investment. These countries represent our future growth markets. If we are to realize our goal of liberalizing trade through multinational bodies such as the WTO, we cannot ignore the concerns of developing countries, which make up the majority of WTO members.

We also will continue to work with the countries that would like to join the WTO. While membership in the WTO is a high priority, we will continue to insist that these accessions be made on commercially viable terms that provide trade and investment opportunities for U.S. agriculture. This means that acceding countries will need to implement trade policies and regulations that are fully consistent with WTO rules and obligations.

China is a perfect illustration of this strategy. Although we are pleased with the U.S.-China accession agreement, and with China's bid for WTO accession nearing completion, soon our work will shift toward implementation of the agreements. Chinese concessions will be important for improved access opportunities; but we must remain vigilant and work with Chinese officials to ensure market opening.

With more than 1.2 billion people, or one-fifth of the world's population, China's accession to the WTO will give U.S. agriculture access to the world's second largest economy in terms of domestic purchasing power. This could result in at least $2 billion in additional U.S. agricultural exports by 2005.

China's WTO accession will strengthen the global trading system, slash barriers to U.S. agriculture, give U.S. farmers and agribusinesses stronger protection against unfair trade practices and import surges, and create a more level and consistent playing field in this market.

In order to realize these gains, we will be vigilant to ensure that China lives up to its WTO commitments, effectively administers tariff-rate quotas, eliminates discriminatory licensing, and fully implements the Agricultural Cooperation Agreement reducing phytosanitary barriers for citrus, wheat, and meat.

Another important area of work for FAS is the negotiation to establish the Free Trade Area of the Americas (FTAA). The FTAA is intended to be a comprehensive free trade agreement between the 34 democracies in the Western Hemisphere. Negotiations began in 1998 and are expected to conclude by 2005. By concluding the FTAA, the United States will gain liberalized access to a region of 675 million people with a combined consumer buying power of $1.5 trillion.

For several years now, the other countries in this hemisphere have been removing trade barriers to each other's trade. There are currently more than 30 reciprocal trade agreements in the hemisphere. The United States is a participant in only one, the North American Free Trade Agreement (NAFTA). USDA's analysis shows that if the United States remains outside of this process, our agricultural exports to the region will be displaced by other hemispheric suppliers at a cost of about $200 million a year. On the other hand, U.S. participation in these agreements could mean an increase in agricultural exports of around $750 million annually. However, this negotiation will be particularly challenging since the Latin American countries are also major agricultural exporters.

We also are actively participating in the Asia Pacific Economic Cooperation (APEC) forum. Asia represents an important market for U.S. agriculture; and we are working with other APEC members to promote economic policies in the region to moderate economic shocks like the Asian economic crisis of 1997–98. We expect APEC to serve as the launching point for promoting continued trade liberalization within the region and in the WTO and we will be working through the APEC food system to realize this goal.

Another priority is how we deal with the issues surrounding products produced through biotechnology. There is a lot to say about what is happening in the biotechnology field and how it is affecting trade. I could go on at length to describe our efforts at USDA to try to stay on top of the issue or to ensure that government actions on labeling and product approval in Japan, the European Union, Korea, Australia, New Zealand, and elsewhere, do not lead to irrational policies that reduce market access for U.S. commodities.

But I believe that events of the past year have resulted in an environment for biotech products that is as unsettled as it has ever been during the short commercial life of this new technology. The demand by some users for non-biotech commodities only, the resulting calls for segregation by some handlers, and the indications that premiums and discounts may be appearing for non-biotech vs. biotech commodities are bound to have an effect on farmers' decisions regarding what to plant next year.

This issue is likely to be a dominant one for U.S. agriculture in the immediate years ahead, whether in the WTO or in our bilateral relationships with customer and competitor nations alike. That is why we have said that when it comes to biotechnology and the next trade round, our focus will be in making sure that biotech

approval regimes, wherever they exist, are transparent, timely, predictable, and science-based.

We also will be working to improve the way we carry out our market development programs. FAS is currently in the process of refining its global marketing strategy that will target those markets that offer the most growth opportunity. To capture the opportunities and address the challenges that lie ahead, FAS needs to build on the considerable progress it has made in the past three and a half years in implementing strategic planning at all levels of the Agency.

We must protect our hard-won gains in mature markets of Western Europe and Japan, and at the same time, set aggressive but achievable growth targets in those markets that offer the most potential. This will require a thorough evaluation of the U.S. opportunities and challenges in those markets, and close coordination with our private industry partners to turn the opportunities to our advantage and the challenges into opportunities. In the next 10 years, the growth markets are likely to be the developing countries in Asia (especially China and South East Asia, and possibly India) and Latin America. Gaining market share in these high-growth markets is the most effective way to increase market share globally.

Our global marketing strategy is also instrumental in our ongoing review of our overseas office locations and staffing. We must continue to strengthen our staffing in FAS overseas offices to ensure that we are positioned to take advantage of the market opportunities created by our market access initiatives as well as new opportunities offered by emerging growth markets.

Alleviating hunger and malnutrition in the world also presents a significant challenge. One means to ensure this issue is addressed appropriately is to identify within the global marketing strategy the food security challenges that currently exist and are likely to emerge over the next decade. We will continue to use our food aid programs to help developing countries that lack the financial means to meet their food needs.

Budget Request

After three consecutive years of essentially straight-lined budgets, we appreciate the increases provided in the fiscal year 2001 appropriation for FAS. The net increase of just under $6.0 million allows FAS to fund fiscal year 2001 pay cost increases fully and partially cover higher overseas operating costs. Additionally, FAS is able to add 15 staff years for food aid and monetization activities, as well as increase our overseas staff in Ukraine and the Balkans.

We believe the future offers continued opportunity for the expansion of U.S. agricultural exports. Strengthening our ability to compete globally has the direct payoff of increased farm income for America's farmers and ranchers and the continued economic development of rural communities. Our fiscal year 2002 request builds on the foundation provided by this Committee in fiscal year 2001.

Mr. Chairman, the fiscal year 2002 budget proposes a funding level of $125.8 million for FAS. This represents an increase of $6.4 million and supports several important agency initiatives.

First, in order to strengthen the agency's market intelligence capabilities at our overseas posts, $2.7 million is requested to place 3 new American officers and 27 new foreign service nationals on Personal Services Agreements (PSAs) in 14 overseas locations where workload demands have become acute. Over the past several years, FAS overseas offices have experienced dramatic increases in workload, particularly that associated with complex trade policy, sanitary and phytosanitary, and food security issues. Meeting these priority workload demands, in addition to regular commodity reporting, marketing, and representation functions, has overwhelmed the capacity of many of our offices in important geographic areas.

As an example, under the bilateral agreement reached with China relating to its accession to the WTO, U.S. agriculture should have increased access for a range of products with lowered tariffs, as I mentioned earlier. However, existing staff is overwhelmed with requests for commodity and market intelligence, intervention on sanitary and phytosanitary (SPS) issues, and official and commercial visitors. FAS has assigned an officer to monitor the agreement, but has no marketing officer ready to identify potential opportunities and work with the private sector to take advantage of them. Currently, FAS simply lacks the staff resources needed to handle these opportunities—a situation repeated in numerous locations around the world.

The PSAs would assume a greater portion of core office responsibilities, thus allowing FAS Agricultural Counselors and Attaches more flexibility to focus on the government policies and issues that can affect the competitiveness of U.S. exports, particularly competitor activities within that market, host country compliance with existing trade rules, and the formation of cooperative links for the upcoming WTO trade round. Increased resources will be directed to China, Philippines, Canada, Co-

lombia, Thailand, Israel, Turkey, El Salvador, Korea, Brazil, Russia, Argentina, Nigeria and India.

Second, the budget requests $750,000 and 10 additional staff years to improve FAS' ability to address and resolve technical trade issues. Technical trade issues, such as the commercialization of food products produced using biotechnology, have become the fastest growing and most sensitive trade issues in U.S. agriculture today and is one of the Agency's key priorities that I mentioned earlier. In addition to biotechnology, U.S. agriculture and our exporters are facing other critical challenges related to technical issues associated with food safety, changing production methods to address environmental concerns, the growing global concern over Bovine Spongiform Encephalopathy (BSE) or mad cow disease, and the expansion of foot and mouth disease. In all cases, FAS is responsible for ensuring regulatory actions taken by our trading partners do not impede our exports and comply with the WTO SPS disciplines. However, existing staff levels only allow FAS to react, on a piecemeal basis, to immediate issues such as StarLink and the BSE outbreak in the European Union.

The additional 10 staff years requested will allow FAS to develop a cohesive strategy for addressing technical market access issues in current major markets and facilitating our entry into newer growth markets. Among other things, staff will be dedicated to developing a strategy for building a coalition of countries important to negotiations and discussions in international organizations. This represents an opportunity to avoid future market access issues by establishing relationships with appropriate government departments and officials. Developing a core group of countries with similar approaches to food safety and biotechnology will be crucial to the United States meeting its goals in international fora.

Finally, the budget includes $2.9 million to fund projected pay cost increases in fiscal year 2002. Budget constraints forced FAS to absorb pay costs in three of the past four fiscal years. Absorption of these costs in fiscal year 2002 would constrain programs.

Export Programs

Mr. Chairman, the export promotion, food assistance and foreign market development programs administered by FAS are key to expanding global market opportunities for U.S. agricultural producers. Our program proposals provide the tools to meet these new sales opportunities.

Export Credit Guarantee Programs.—The budget includes a projected overall program level of $3.9 billion for export credit guarantees in fiscal year 2002. As in previous years, the budget estimates reflect actual levels of sales expected to be registered under the programs rather than authorized program levels. Of the total program level, $3.4 billion will be made available under the GSM–102 program and $100 million will be made available under the GSM–103 program. For supplier credit guarantees, the budget includes an estimated program level of $330 million and an estimated program level of $95 million for facility financing guarantees.

Foreign Market Development.—The fiscal year 2002 budget includes Commodity Credit Corporation (CCC) funding of $27.5 million for the Foreign Market Development (Cooperator) Program, unchanged from last year. The CCC estimates also include $2.5 million in funding from CCC for the Quality Samples Program. Under this program, samples of U.S. agricultural products are provided to foreign importers in order to overcome trade and marketing barriers by promoting a better understanding and appreciation of the high quality characteristics of U.S. agricultural products. The Quality Samples Program is carried out through commodity organizations and agricultural trade associations.

Market Access Program (MAP).—The CCC estimates provide funding for MAP in fiscal year 2002 at the maximum authorized level of $90 million, unchanged from fiscal year 2001.

Public Law 480.—For fiscal year 2002, the budget includes a total program level for all titles of Public Law 480 food assistance of $995 million, which is expected to provide approximately 2.7 million metric tons of commodity assistance. In the case of Public Law 480 Title I credit sales, appropriated funding has been continued at the fiscal year 2001 level. However, the Title I credit level is reduced due to higher estimated subsidy costs for the program which result from changes in county allocations and financial terms.

Export Enhancement Program (EEP).—World supply and demand conditions have limited EEP programming in recent years. However, the fiscal year 2002 budget does include a program level of $478 million for the EEP, the maximum level authorized by the Agricultural Trade Act of 1978, and the awarding of EEP bonuses can be resumed whenever market conditions warrant.

Dairy Export Incentive Program (DEIP).—The budget assumes a DEIP program level of $42 million for fiscal year 2002, slightly above the fiscal year 2001 estimate of $34 million. These levels are reduced from those of recent years for a number of reasons. Foremost among these reasons is the fact that the average subsidy rate for nonfat dry milk, the largest category of dairy products exported under DEIP, has declined from $1,040 per metric ton in fiscal year 1999 to a rate of $121 per metric ton during the first 6 months of fiscal year 2001. This development reflects higher world prices for nonfat dry milk and greater competitiveness for U.S. product in world markets.

This concludes my statement, Mr. Chairman. I will be glad to answer any questions.

Senator COCHRAN. Mr. Collins, we would be pleased to hear from you now.

STATEMENT OF KEITH COLLINS

Mr. COLLINS. Thank you very much, Mr. Chairman, Mr. Kohl, and Mr. Johnson. Thanks for the invitation to join you today in your review of farm and trade programs.

I, too, would say I am delighted to be here to join with Mr. Shipman, who as you know, has brought high energy, a quick wit and most importantly, I think, a good nature to the USDA. And so we are pleased to have him.

You asked me to briefly describe the state of the overall farm economy and I am going to do that by first discussing a few positive developments and then as economists should do, offering a few concerns.

Despite the downturn in farm markets since 1997, there are some encouraging signs in the farm economy, and Mr. Shipman just ended on one of them, and that is U.S. agricultural exports, which two years ago were $49 billion, last year $51 billion and this year we expect $53 billion, with much of this year's gain in high value and value-added products, such as meats and horticultural products.

I would point out: Our expected exports to Canada and Mexico this year. We are forecasting them to reach $15.2 billion. If you go back to 1996, when we had our all-time record high level of farm exports of $60 billion, our exports to our NAFTA partners in that year were only $11 billion. So we are gaining materially here in the western hemisphere.

A second encouraging sign is that some of the global crop markets are beginning to move toward better supply and demand balance.

And I will give you an example; look at total world grain stocks at the end of this marketing year. We are expecting them to be 240 million tons. If you go back to 1998 marketing year, they ended at 280 million tons

So the current level of stocks is not excessive by historical standards and it does suggest if there were to be some material disruption in production around the world, we could have a sharp boost in grain prices.

A third encouraging sign is that U.S. producers appear to be reducing plantings of major crops in response to a little bit lower net market returns.

Last year, in fact, planted acreage to the principal crops rose. This year producers have indicated plans to reduce crops such as

corn by four percent and in total area in principal crops by about 3.5 million acres or 1.5 percent.

A fourth encouraging sign is that livestock prices and returns for the most part are up. In fact, we just reported that cash receipts for livestock and poultry for the year 2000 were a record high.

We saw record high beef production in the year 2000, and at the same time we saw fed cattle prices average $70 per hundred weight, which would be an unusually propitious experience for our nation's cattle ranchers.

Hog receipts were also up 37 percent in the year 2000. And despite being very weak last year, we think that this year milk prices will average the fourth highest level ever.

A fifth encouraging sign has been a strong rural economy, providing off-farm job opportunities for farmers and ranchers. Today, four out of five farm households have one or more spouses earning income off the farm.

This and the strength of the national economy have boosted farm household incomes and made many farm households less vulnerable to downturns in the farm economy.

Well, despite these encouraging signs, a strong rebound in market returns for major crops is probably not likely without a significant weather disruption around the world or an unexpected surge in demand this year. And that is because there are a few not so encouraging signs in the farm economy.

One of those on the export front is simply the overall global economy, which is now growing at a much slower rate than most analysts expected at the start of this year.

A second problem we have is the exchange value of the dollar, which remains very high relative to the mid-1990s. And that, of course, prevents people who import our products from seeing the full discount that they would otherwise see in our prices.

And it also insulates our competitors from declines in farm prices as well. And I will give you as an example soybeans, where we see right now a 25-year low in the soybean price, and yet soybean production in Brazil and Argentina has increased 20 percent over the past 2 years.

Another discomforting factor is the price of energy-based farm production inputs. Last year, high gasoline and diesel prices raised farm production expenses for energy-based inputs by $2.9 billion.

And I think this year we are going to see a similar increase of that magnitude, something on the order of a $5 billion to $6 billion increase over a 2-year period in energy-based production expenses.

Another factor of concern is the dependence of farm income on government payments. Last calendar year, farmers received a record high $22 billion.

This year we expect that to fall to $14 billion, with part of that decline due to the ongoing provisions of the 1996 Farm Bill, but most of that decline due to reduced supplemental assistance payments.

Although market revenue is expected to be up this year, lower government payments—of course, I am assuming that in the absence of any legislation at this point—lower government payments and higher production costs would reduce U.S. net cash farm income by some ten percent.

And, of course, that projected decline is what has put Congress in the position of providing supplemental assistance again in 2001.

I would like to end by just profiling a couple of key developments to look for in commodity markets this year. For wheat, we have the lowest acreage in 28 years. We also have a poor condition in the winter wheat crop. That suggests to me that wheat stocks could be drawn down fairly substantially this year and we could see stronger prices in 2001 and 2002.

We also are seeing some shift out of corn this year. And I think that combined with very strong feed and industrial use, particularly 18 consecutive months of record high ethanol production in the United States, will pull corn stocks down in the 2001 season and improve corn prices as well.

However, the record large soybean crop that is in prospect for this year—large southern hemisphere crops, as well, could push soybean prices even lower.

Cotton prospective planted area this year is the second highest planted area since 1962. And I think that, together with the fact that China looks like it is going to be producing more cotton has put cotton right now at 25-year lows in price. And I think those prices are going to remain under some pressure.

I think the same is true for rice. We have a fairly tight market for long-grain rice. However the world has abundant rice supplies so that is going to keep pressure on that market.

For horticultural products, the record is mixed. We have several crops like potatoes, cranberries and apples that are facing market weakness due to large supplies, but we also expect horticultural exports to be record high this year. And that is going to benefit some of those commodities.

As I mentioned earlier, we are seeing stronger markets for meats and milk. Animal disease problems in Europe are having a small positive effect on our protein feed exports to replace meat and bonemeal and, I think, may strengthen slightly our exports of pork and poultry as some foreign buyers shift away from E.U. beef.

On balance, Mr. Chairman, there are some hopeful signs and U.S. agriculture, including an improving supply/demand balance, higher farm prices for some of our major commodities in prospect.

PREPARED STATEMENT

U.S. farm households have also shown resiliency in maintaining their financial position and standard of living over the last couple of years. Nevertheless, net income from crop markets continues to be the key weak spot in the farm economy.

Thank you.

Senator COCHRAN. Thank you, Mr. Collins.

[The statement follows:]

PREPARED STATEMENT OF KEITH COLLINS

Mr. Chairman, thanks for the invitation to discuss the current situation and outlook for U.S. agriculture. While the overall farm situation of the past couple years of generally weak markets continues, there are some signs of improvement. Global demand is slowly getting better, livestock prices and returns are for the most part up, global grain stocks are not excessive when compared with use, and reduced U.S. plantings could lead to lower grain stocks and higher prices in 2001. Nevertheless, a strong increase in farm prices and income from the marketplace for major crops

appears unlikely, unless adverse weather leads to a shortfall in global crop production. In addition, increases in prices for energy-related farm inputs continue to push up farm production expenses, and adverse weather is reducing crop production prospects and delaying spring planting in some areas.

General Overview

The U.S. economy has benefitted from income growth, low unemployment, surging productivity, low inflation, and low interest rates the past several years. While these economic trends have also helped farmers and ranchers, other economic factors, such as foreign competition, a strong dollar, and economic recession in foreign countries reduced U.S. agricultural exports and prices received by farmers.

Our most recent monthly data for April 2001 shows some price improvement. The index of prices received by producers for all crops was up 4 percent from a year ago and the index of prices received for livestock and livestock products was up 11 percent. While farm prices are generally up, they are recovering from unusually low levels. For the 1999/00 marketing year, the average price of soybeans was the lowest since 1972/73, the prices of corn and wheat the lowest since 1986/87, the price of rice the lowest since 1992/93, and the price of cotton the lowest since 1974/75. Cattle and hog prices were also relatively weak in 1999 but were up 6 and 31 percent, respectively, in 2000. Milk prices were relatively strong in 1999 but fell to a 9-year low in 2000.

Many producers, during the last several years, also have been adversely affected by weather-related problems and, more recently, increases in prices for energy-related inputs. Soil moisture levels remain very low in parts of the Southeast, Florida, west Texas, and the Northwest. Sierra snow pack levels, which provide water to California's reservoirs for electricity generation and farmland irrigation, were below normal this past winter. Cool and wet weather is delaying spring fieldwork in parts of the Midwest, and below normal rainfall in the Southern Plains last fall has adversely affected winter wheat stands and increased abandonment.

Congress responded to the problems caused by low commodity prices and adverse weather by authorizing nearly $25 billion in supplemental assistance the past three years, greatly limiting the farm financial stress that farmers and ranchers would otherwise have faced. These supplemental payments, plus payments authorized under the 1996 Farm Bill, pushed government payments to a record-high $22 billion in calendar year 2000 and Commodity Credit Corporation (CCC) outlays to a record $32 billion in fiscal year 2000. If Congress had not provided nearly $9 billion in supplemental assistance, net cash income would have likely fallen to $47.5 billion in 2000, the lowest level since the farm financial crisis of the mid-1980s. Instead, net cash income reached $56.4 billion in 2000, nearly $2 billion above the average of the 1990s.

Outlook for U.S. Agricultural Exports

In the mid-1990s, the value of U.S. agricultural exports rose sharply peaking at a record $60 billion in fiscal year 1996, as world gross domestic product (GDP) grew at an annual rate of 3 percent and global grain and oilseed production fell about 4 percent. Over the next 3 years, the value of U.S. agricultural exports fell by nearly $11 billion, as good weather and strong prices led to an abrupt turnaround in world crop production and world economic growth, excluding the United States, dropped to 1.3 percent. In fiscal year 2001, the value of U.S. agricultural exports is forecast to reach $53 billion, up from last year's $50.9 billion.

The outlook for agricultural exports generally appears more positive than in recent years. While world GDP, excluding the United States, is expected to slow from last year's high rate of nearly 4 percent, it is expected to continue to remain firm at over 2.5 percent in 2001 and above 3 percent in 2002. Several Asian, Latin American, and Middle Eastern countries that were in recession in 1998 and 1999 are now registering steady growth.

Another key factor for U.S. agricultural exports is the U.S. exchange rate. Between April 1995 and January 2001, the U.S. real agricultural trade-weighted exchange rate appreciated by 25 percent relative to the currencies of countries that import U.S. agricultural products, thus increasing the price importers must pay in terms of their own currency. And over this period, the U.S. dollar appreciated nearly 40 percent relative to the currencies of U.S. agricultural competitors, which helped insulate their producers from lower world prices. Declining interest rates and a slowing economy should weaken the dollar somewhat in 2001, making U.S. agricultural products modestly more attractive to foreign buyers.

Outlook for Farm Income

In 2001, farm cash receipts are forecast to reach $200 billion, up $4 billion from last year and $16 billion from the average of the 1990s, although $8 billion below

the record set in 1997. Compared to 1997, crop receipts are projected to be down $11 billion in 2001, while livestock receipts are forecast to be up about $3 billion. These figures mask steep declines in cash receipts and income for major field crops. Cash receipts for grains, soybeans, and cotton declined from a record $57 billion in 1997 to $43 billion in 2000 but are projected to increase slightly to $45 billion in 2001.

Despite improving cash receipts, USDA currently forecasts a decline in net cash farm income in 2001 to under $51 billion, down from $56.4 billion last year, as production expenses continue to rise and government payments decline. This decline assumes no supplemental assistance for the 2001 crops. Increases in petroleum prices and prices for other production inputs increased farmers' production expenses by 4 percent or $7.6 billion in 2000, with higher fuel and oil prices accounting for about one-third of the increase. In 2001, farmers' total cash production expenses are forecast to increase $1.5 billion to a record $179.5 billion. Higher petroleum and natural gas prices have increased the prices of diesel fuel and nitrogen fertilizer, and repair, marketing, and labor costs are also expected to increase in 2001.

Government payments have offset much of the decline in major crop cash receipts since 1998, helping to maintain producers' cash flow. Direct government payments to farmers reached a record $22 billion last year, up from $8 billion in 1997. In 2000, direct government payments included nearly $5 billion in Production Flexibility Contract (PFC) payments, $6.4 billion in loan deficiency payments, $2 billion in conservation program payments, and nearly $9 billion in supplemental (crop and market loss) assistance.

In calendar 2001, government payments are projected to decline about $8 billion to slightly over $14 billion. With no supplemental aid legislation in place for the 2001 crops, supplemental assistance to farmers and ranchers is forecast to fall from nearly $9 billion last year to about $3.5 billion in 2001. The supplemental assistance that is expected to be paid out in 2001 was authorized by Congress last year to cover crop and market losses producers incurred in 2000. Scheduled annual reductions in PFC payments under the 1996 Farm Bill and lower loan deficiency payments, reflecting improving prices for major crops, are forecast to reduce government payments by $2.5–$3.0 billion in 2001.

Net cash farm income on a crop year basis for the major field crops—wheat, rice, corn, sorghum, oats, barley, cotton and soybeans—excluding government payments was quite low for the 1999–2000 crops and is projected to remain low in 2001. Net cash farm income for major field crops averaged $43.4 during 1999–2000 and is projected to rise to $46 billion for crop year 2001, compared with the average of $51 billion during the 1990s and $54.5 billion for the 1995–99 crops. Direct government payments were equal to three-fourths of net cash income for major field crops in 1999 and more than two-thirds of net cash income in 2000. In 2001, net cash income for major field crops is projected to fall by more than $6 billion. The projected decline in income in 2001 is about equivalent to the amount of market loss assistance Congress authorized last year for major field crops.

Outlook for Farm Finance

Farm financial conditions remain stable, aided by record government payments and greater off-farm income. The debt-to-asset ratio remains stable at about 16 percent, down from 23 percent during the farm financial crises of the mid-1980s, and farm real estate values and land rental rates generally continue to rise. All major farm lender institutions continue to experience historically low levels of loan delinquencies, foreclosures, net loan charges, and loan restructuring. At the end of 1999, nearly 60 percent of all farms reported they had no outstanding debt.

Farm debt rose 2.4 percent in 2000, surpassing $180 billion for the first time since 1984. In 2001, farm debt is forecast to increase to slightly under $183 billion. As a percent of the value of farm assets, farm debt is expected to remain unchanged from last year's 16.1 percent. Even though farmers' balance sheets are much improved from the mid-1980s, the forecast drop in farm income in 2001 would reduce somewhat farmers' ability to repay existing debt. In 2001, farmers are forecast to use, on average, 65 percent of their maximum feasible debt—which is termed debt repayment capacity utilization (DRCU) and is calculated based on income and interest rates. This use of feasible debt would be up from 60 percent in 1999 and 2000.

USDA research suggests that commercial farms that cannot service their debt and stop performing on their loans usually have debt equal to 240 percent or more of their maximum feasible debt. In both 1999 and 2000, about 50,000 of the nation's 512,000 commercial farms had debt of 240 percent or more of maximum feasible debt. In 2001, the number of commercial farming operations with debt of 240 percent or more is forecast to increase to 70,000.

In addition to record government payments, improved off-farm income opportunities for farm households have helped avoid more serious farm financial problems. Off-farm earnings are a significant source of income for farm households and help insulate them from financial difficulty when the farm economy weakens. Eighty percent of all farmers or their spouse are employed off the farm. In recent years, about 90 percent of the total income of the average farm household is derived from off-farm sources. Earnings of farm operator households from off-farm sources averaged an estimated $60,000 in 2000, up from less than $36,000 in 1992. Combining income from farm and off-farm sources, farm operators averaged over $64,000 in total household income in 1999, about 17 percent higher than the average income of all U.S. households.

While nationally farm financial conditions appear secure, regional and sector problems persist. The combination of low prices and adverse weather in the Southeast, southern plains and elsewhere has contributed to regional pockets of farm financial stress. In addition, production agriculture consists of a diverse group of farms and ranches with varying degrees of financial success, which a single aggregate performance indicator such as net farm income cannot capture.

Farm Financial Characteristics by Farm Type

Net cash income and net farm income are single dimension indicators that can be used to track sector performance over time. Aggregate performance measures, however, mask the wide distribution of earnings in the farm sector, discount off-farm income and wealth, and do not reveal debt service problems or signal the occurrence of farm failures. The farm typology, recently developed by the Economic Research Service, provides a useful framework for examining the wide array of farm and farm household financial circumstances exhibited by the sector today.

When crop prices are low and aggregate farm income falls, the common expectation is that farm household income will also decline leading to a lower standard of living for farm families. However, for the majority of farm households (62 percent), the farm business operator's primary occupation is something other than farming. Indeed, the financial well-being of most farm families is much more dependent on general economic conditions and the local economy and than on commodity prices.

That said, the condition of the farm economy matters most to the 800,000 farm households in which the primary occupation of the operator is farming. Farm households in which the primary occupation of the operator was farming had an average household income of $55,000 in 1999, compared with $70,000 for farm households in which the primary occupation of the operator was something other than farming. Nearly one in three farm-dependent households had consumption expenditures that exceeded household income. These households had to withdraw from savings, or borrow or liquidate assets in order to accommodate income short falls.

A common perception is that low returns from farming lead to a low rate of wealth creation for farm households. On average, farm households are wealthier than their non-farm counterparts and have seen their wealth increase at a faster rate during the 1990s than non-farm households. Much of this wealth advantage is associated with the ownership of farmland. Agricultural land values have steadily increased in the last decade and these gains are in part attributable to government payments.

According to data collected through USDA's Agricultural Resource Management Study (ARMS), slightly over 40 percent of all farm operators received farm program payments in 1999. Recipients of farm program payments tend to be concentrated in the largest farm typology classes, since payments are principally based on current or historical plantings of program crops. About 80 percent of full-time family farms with sales between $100,000–$500,000 (farming occupation/higher sales and large family farms) received farm program payments. These two groups, consisting of 12 percent of all farms, received 46 percent of total government payments to farm operators in 1999 and, on average, farm program payments made up 14 percent of gross cash income on these farms. Family farms with sales of $500,000 or more, 3 percent of all farms, received 22 percent of total farm program payments and, on average, each farm received just over $85,000 in government payments. Farm program payments accounted for about 6 percent of gross cash income on these very large farms. Limited-resource family farms (small farms with less than $100,000 in gross sales, farm assets less than $150,000 and total operator household income less than $20,000), 6 percent of all farms, received $4,000 in government payments, on average, but these payments accounted for over 25 percent of average gross cash income on these farms. About 1 percent of farm program payments went to limited-resource family farms in 1999. Larger farms received more of their government payments from PFC payments and loan deficiency programs, while smaller farms received more of their payments from the Conservation Reserve Program (CRP).

Slightly over 40 percent of all farms reported having outstanding farm debt at the end of 1999, indicating that debt is not a source of capital for the majority of farms. Farm loan delinquency rates (percent of loans with payment past due 30 days or more) peaked in 1987 at 11 percent of total loan volume and declined throughout most of the 1990s, remaining around 3 percent for the last several years. Comparison of actual debt levels with the maximum amount of debt that can be serviced by household income suggests that 17 percent of farm households experienced debt repayment problems in 1999. Repayment problems varied ranging from 10 percent for retirement farm households, which borrowed primarily for non-farm purposes, to nearly one in four for large family farms.

The American Bankers Association (ABA) conducts a survey of agricultural banks to track the number of farms going out of business each year. The majority of farm sales are normal attrition and voluntary liquidations (80 percent). Farm bankruptcy filings peaked at 4.2 percent in 1986 and ranged between 1 and 2 percent for most of the 1990s.

Outlook for Major Crop and Livestock Commodities

Major crop prices for the 2000/01 season are generally expected to register modest improvement from last year, reflecting another year of large global production of major crops and ample stocks. While it is too early to predict a substantial recovery in major crop prices in 2001, global stock levels going into the 2001 season are projected to be down from a year earlier. At the end of this season, global grain stocks are projected to be down 11 percent from a year ago and the lowest since 1996/97. As a result, world grain prices could move up sharply if weather adversely affects global crop production over the next several months.

In 2000, U.S. producers planted the lowest wheat acreage since 1973. Wheat prices this marketing year are forecast to average $2.60–$2.70 per bushel, up from last season's $2.48. The increase in prices reflects lower total supplies, increasing total use, and declining world and U.S. carryover stocks. Total use is forecast to increase by 44 million bushels over last year's nearly 2.4 billion bushels, as food use, feed use, and exports are all expected to register modest gains. Wheat exports are projected to reach 1.1 billion bushels, the highest since the 1995/96 season. A major factor supporting higher exports was weather, as weather reduced the size of Australia's crop and the quality of EU's crop in 2000. Ending stocks are forecast to fall for the second consecutive year, from 950 million bushels at the end of last season to 829 million bushels at the end of this marketing year.

Lower wheat supplies in 2001/02 could lead to another year of reduced carryover and improved farm prices. Growers have indicated intentions to plant 60.3 million acres to wheat in 2001, down 4 percent from 2000. Some of the winter wheat was seeded late because it was initially very dry followed by very wet weather. As a result, much of this wheat did not emerge until spring, and the wheat that did emerge last fall was in poor shape going into the winter. Over one-third of the winter wheat crop in Kansas and Oklahoma currently is rated in very poor or poor condition. Some producers are leaving the land fallow or tearing the wheat up and planting row crops. Others are grazing cattle on their winter wheat acreage or planning to cut the wheat for hay. Also, spring wheat plantings have been stalled in some parts of the Northern Plains because of flooding and wet conditions. While weather conditions in coming weeks will be very important, the poor condition of winter wheat in parts of the Southern Plains and sparse rains in the Pacific Northwest is likely to lead to lower wheat yields in 2001.

The 2000/01 corn crop of 9.97 billion bushels was the second highest on record, as plantings expanded by 2 million acres and growing conditions were generally quite favorable for much of the Midwest. The bigger crop and large beginning stocks resulted in the largest supplies of corn since 1987/88. With total supplies up sharply from one year ago, ending stocks are forecast to increase by over 230 million bushels from last season's 1.72 billion bushels to the highest level since 1992/93. Total corn use this season is projected to reach a record 9.75 billion bushels, compared with last season's 9.52 billion bushels, primarily reflecting expanding domestic use. Both feed use and food, seed and industrial use are expected to reach record levels. Corn used for alcohol production is projected to total 615 million bushels, up 9 percent from a year earlier and up 50 percent from a decade ago. Corn exports are expected to be about unchanged from last year, even though foreign corn production is down about 10 percent this season. Concerns about the potential presence of StarLink in U.S. corn likely contributed to Japan and South Korea purchasing more corn from Argentina and Brazil. The farm price of corn for the 2000/01 marketing year is forecast to average $1.80–$1.90 per bushel, compared with last year's $1.82 per bushel.

Higher natural gas prices will increase corn producers' fertilizer and irrigation costs in 2001. These higher costs are expected to reduce corn plantings in 2001. In

early March, corn growers indicated they intend to plant 76.7 million acres of corn in 2001, down 4 percent from 2000 and down 1 percent from 1999. Below-normal temperatures, combined with excessive moisture, is delaying corn plantings in some areas, but corn planting progress overall is only marginally below the 5-year average. Depending on the weather over the next few weeks, corn plantings could advance rapidly with little loss in yield potential. Assuming normal weather, lower acreage, another year of good export opportunities supported by continued global economic growth, and expanding ethanol use would reduce ending stocks by several hundred million bushels, strengthening market prospects for corn in 2001/02.

Soybean plantings and production were record-high in 2000. Soybean production reached nearly 2.8 billion bushels, up 4 percent from a year earlier, which more than offset lower carry-in stocks and caused total soybean supplies to increase about 2 percent in 2000/01. Most of the increase in supplies is expected to go into higher total use. Domestic crush is forecast to exceed the record set in 1998/99 by 1 percent and U.S. soybean exports could eclipse last year's record of 973 million bushels by 2 percent. Still, with ample supplies, soybean prices for 2000/01 are projected to average $4.45–$4.55 per bushel, compared with last season's $4.63.

Less fall planted wheat, higher fertilizer prices, planting flexibility, and the benefits of the soybean marketing loan program provide an incentive for producers to further expand soybean plantings in 2001. In early March, producers indicated they intend to plant a record 76.7 million acres to soybeans in 2001, up 3 percent from last year. Continued delays in corn plantings caused by excessive moisture and cool temperatures could lead to some additional acreage being planted to soybeans. Assuming normal weather, higher acreage could lead to another year of record soybean production and rising carryover, although total use could also reach another record in 2001/02. The EU's ban on the use of meat and bone meal in animal feeds could raise soybean meal exports, but foreign competition is likely to remain intense. Under the pressure of rising stocks, soybean prices could fall further during the 2001/02 marketing year.

Cotton production rose 1 percent in 2000, even though drought caused significant yield losses in some areas of the country. Despite a slightly higher total supply, U.S. cotton mill use is projected to decline from last season's 10.2 million bales to 9.3 million bales, as textile imports continue to grow. Reflecting the sharp decline in domestic mill use and modestly higher exports, stocks of cotton at the end of the 2000/01 season are projected to reach 5 million bales, a 12-year high. From August 2000 through February 2001, the farm price of cotton averaged 54.6 cents per pound, compared with last year's season average price of 45 cents. However, prices have sunk recently as production in both China and the U.S. is likely to expand this year.

Farmers intend to plant 15.6 million acres to cotton in 2001, up less than 1 percent from last year. This would be the largest cotton acreage since 1995 and the second largest since 1962. Assuming a return to more normal weather, total cotton supplies for the 2001/02 season could reach the highest level in 35 years. With a rebound in domestic mill use unlikely, U.S. cotton exports would need to reach a nearly unprecedented 10 million bales to prevent 2001/02 carryover from surpassing projected carryover for the 2000/01 season. Strong competition for export markets and large supplies are expected to continue to pressure U.S. cotton prices during the 2001/02 season.

Rice production, in 2000, fell 7 percent from the record of 206 million cwt. set in 1999, causing total supplies at the beginning of the crop year to decline 4 percent from the previous year. Total carryover stocks are projected to fall from last season's 27.5 million cwt. to 24.3 million cwt. at the end of this season, as the drop in total supplies is projected to be partially offset by lower total use. This season, the farm price of rice is forecast to average $5.65–$5.75 per cwt., compared with last season's $5.93. Producers indicated in early March that they intend to increase rice plantings by 1 percent in 2001.

Large sugar production in 1999/00 resulted in large forfeitures of sugar to the CCC last year. In order to reduce government inventories of sugar and prevent additional forfeitures, USDA announced a Payment-in-Kind (PIK) Program for 2000-crop sugar under which beet producers could elect to divert a portion of their contracted acreage from production in exchange for in-kind payments in the form of CCC-owned sugar. Under the program, 102,000 acres of beet sugar were diverted from production in 2000 cutting sugar production by an estimated 275,000 tons. On April 1, 2001, the CCC owned nearly 800,000 tons of sugar. For all of 2000/01, sugar production is down an estimated 552,000 tons, which has reduced, but not eliminated, the prospect of additional forfeitures to the CCC in 2001. For the 2001/02 season, farmers indicated plans to reduce sugar beet planted acreage, mainly in California and the Plains States. Looking ahead, import commitments under existing inter-

national trade agreements (including Mexico), the potential for over quota or second tier imports from Mexico, continuing imports of sugar-containing products that are exempt from import restraint and trend growth in U.S. yields could continue to pressure sugar prices, leading to further CCC stock accumulation over the next several years, unless U.S. sugar production declines.

In 2000, hog prices averaged $44.70 per cwt. for the year, up 31 percent from a year earlier. Responding to low returns, producers began to reduce their breeding herds in late 1998 and continued to reduce them in 1999 and through much of 2000. Responding to improved returns, producers began increasing farrowings at the end of 2000. The increase in farrowings is expected to cause pork production to rise about 1 percent in 2001. Hog prices are forecast to average $42–$44 per cwt. in 2001, but rising hog and poultry production could push hog prices to the mid-$30 range during the fourth quarter.

In 2001, liquidation of the nation's cattle herd is expected to finally lead to reduced beef production. In 2000, lower cattle and calf numbers did not translate into less beef production, as record slaughter weights and increased placements of cattle in feedlots, due to reduced forage supplies caused by dry weather, led to record beef production. The most severe winter since 1992/93 reduced fed beef production and increased cow slaughter during the first quarter of 2001. Net placements of cattle on feed during March were 12 percent below 2000 and 14 percent below 1999 levels. During the last half of 2001, reduced placements of cattle on feed are expected to lead to a 5-percent decline in beef production. For all of 2001, beef production is forecast to be down 4 percent, with choice steer prices averaging $74–$77 per cwt., compared with $69.65 in 2000 and $65.56 in 1999.

Recent concerns over Bovine Spongiform Encephalopathy (BSE) and outbreaks of foot-and-mouth disease (FMD) in a number of countries are expected to have little impact on U.S. livestock markets. The United States has banned beef imports from the EU since 1996, so the recent outbreak of FMD in the United Kingdom, Ireland, France, and the Netherlands is not expected to directly affect U.S. beef imports. The United States exports grain-fed beef which is higher priced than EU grass-fed product, so these products do not compete in the same markets.

The United States imports pork from a number of EU countries, primarily Denmark, and imports of fresh, chilled, and frozen pork products are now banned. However, the amount of EU pork imports covered by the ban represents just 0.6 percent of total U.S. pork consumption. Although a number of countries have bans in place on imports of EU pork, imports to South Korea, Taiwan, and Russia had been forecast to decline after EU subsidies were dramatically reduced in mid-2000. On April 25, Japan lifted its ban on imports of pork from Denmark, the major U.S. competitor. This allows Japanese importers to resume imports of Danish product instead of switching to pork from North America. Expansion of U.S. exports to Russia will be limited by Russia's recent announcement that it will allow red meat imports from most of the EU.

Broiler prices are projected to average 57–60 cents per pound in 2001, compared with 56.2 cents per pound in 1999. In response to low prices through most of 2000, producers have reduced the rate of expansion in broiler production. In 2000, broiler production rose 2.5 percent which followed a 7-percent increase in 1999. In 2001, broiler production is forecast to increase by 1 percent. Broiler exports continue to show considerable strength. In 2001, broiler exports are forecast to reach 5.7 billion pounds, up 3 percent from last year and up 16 percent from two years ago.

Increased milk production caused milk prices to collapse at the end of 1999, as producers responded to two consecutive years of strong returns. In 2000, the all-milk price averaged $12.40 per cwt., a 9-year low. In response to the collapse in milk prices, Congress authorized payments of $0.65 per cwt. to dairy producers on production of up to 39,000 cwt. and extended the price support program for milk through the end of calendar year 2001. Extension of the price support program, rising milk production, and a desire to maintain dairy producers' incomes has led to the largest government purchases and inventories of nonfat dry milk since the mid-1980s. On April 1, 2001, the CCC held 772 million pounds of nonfat dry milk in inventory.

Cow numbers have begun to decline in response to last year's low milk prices and cold winter weather caused milk production per cow to fall in the first quarter. These factors are expected to cause milk production to decline in 2001, following increases of over 3 percent in both 1999 and 2000. Declining milk production and continued increases in demand for dairy products caused wholesale butter and cheese prices and farm-level milk prices to increase sharply in recent months. The all-milk price is forecast to average $13.85–$14.35 per cwt. in 2001, compared with the average of $13.57 per cwt. during the 1990s.

The outlook for horticultural crops is very uneven. As a group, cash receipts for horticultural crops are projected to be up in 2001 and the value of exports is forecast to reach a record $11.3 billion in fiscal year 2001. However, farm prices for some horticultural crops, including apples, cranberries, grapefruit, lemons, pears, and potatoes, are being adversely affected by large supplies. In addition, irrigation water constraints and higher electricity prices in the west are likely to cause some reduction in horticultural production, particularly for processing vegetables.

Longer-term Outlook

Over the next several years, the market situation for major crops is expected to gradually improve. Rising world demand and continued progress toward freer trade are projected to lead to steady increases in U.S. agricultural exports and farm prices and cash receipts for major crops. Increases in domestic food, feed, and industrial uses could also contribute to higher farm prices for major crops. Assuming no additional supplemental aid and continuation of current farm programs, farm income could fall below recent levels over the next few years, as gains in cash receipts fail to offset sharply lower government payments. Farm program spending carried out through the CCC is projected to decline to $20 billion in fiscal year 2001 and to $13 billion in fiscal year 2002 before stabilizing at $8–$10 billion thereafter under continuation of current law. Beyond the next few years, the outlook for the farm sector improves as expanding exports further strengthen farm commodity prices and increases in farm income and farm asset values help to moderate farm financial stress.

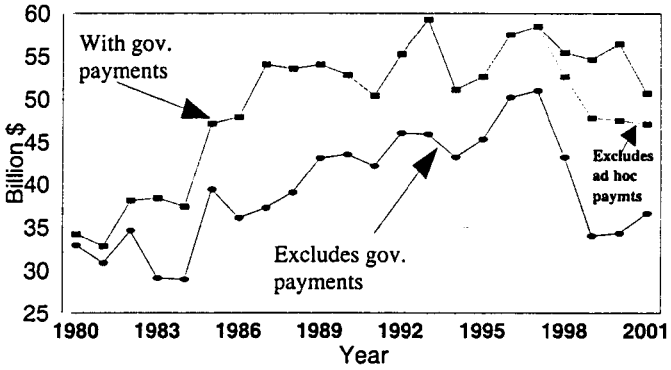
Mr. Chairman, that completes my testimony and I would be pleased to respond to questions.

Farm Economic Indicators

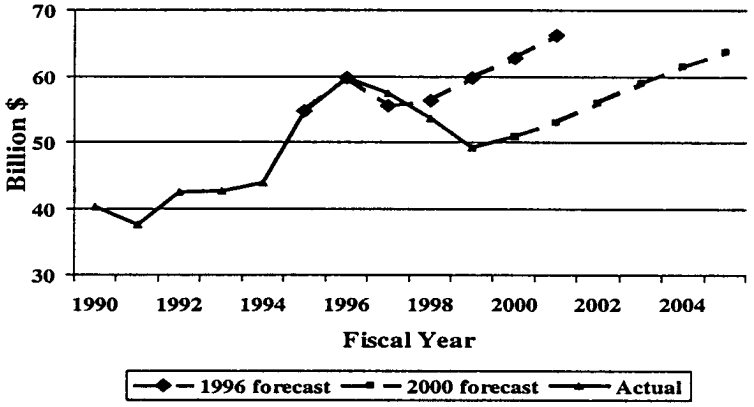
Commodity Prices	Unit	1996/97	1997/98	1998/99	1999/00	2000/01
Wheat	$/bu	4.30	3.38	2.65	2.48	2.65
Corn	$/bu	2.71	2.43	1.94	1.82	1.85
Soybeans	$/bu	7.35	6.47	4.93	4.63	4.50
Rice	$/cwt	9.96	9.70	8.89	5.93	5.60
Cotton	cents/lb	69.30	65.20	60.20	45.00	54.6 1/
		1997	1998	1999	2000	2001
Hogs	$/cwt	54.30	34.72	34.00	44.70	43.00
Steers	$/cwt	66.32	61.48	65.56	69.65	75.50
Broilers	cents/lb	59.00	63.00	58.10	56.20	58.50
Milk	$/cwt	13.36	15.46	14.38	12.33	14.10
Gasoline	$/gallon	1.24	1.07	1.18	1.53	1.50
Diesel	$/gallon	1.19	1.04	1.12	1.45	1.46
Natural gas (wellhead)	$per1,000 cubic ft	2.32	1.95	2.17	3.62	5.18
Electricity	$/kwh	8.43	8.26	8.16	8.25	8.44
Agricultural Trade (Billion $)	FY1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total exports	59.9	57.4	53.7	49.2	50.9	53.0
Asia	26.0	23.9	19.7	18.5	19.7	21.2
Canada	6.0	6.6	7.0	7.0	7.5	7.8
Mexico	5.0	5.1	6.0	5.7	6.3	6.8
Total imports	32.5	35.7	36.8	37.3	38.9	40.0
Farm Income (Billion $)	1996	1997	1998	1999	2000	2001
Cash receipts	199.1	207.6	196.6	188.6	196.0	200.0
Govt payments	7.3	7.5	12.2	20.6	22.1	14.1
Gross cash income	217.4	227.1	222.6	225.0	234.4	230.2
Cash expenses	159.8	168.6	167.2	170.4	178.0	179.5
Net cash income	57.6	58.5	55.4	54.6	56.4	50.7

1/ August through February average.
2/ Source: Energy Information Administration, Short Term Energy Outlook, April 2001.

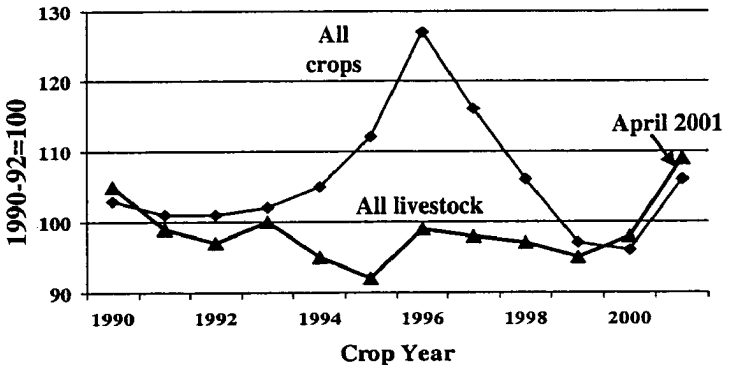
U.S. Net Cash Farm Income



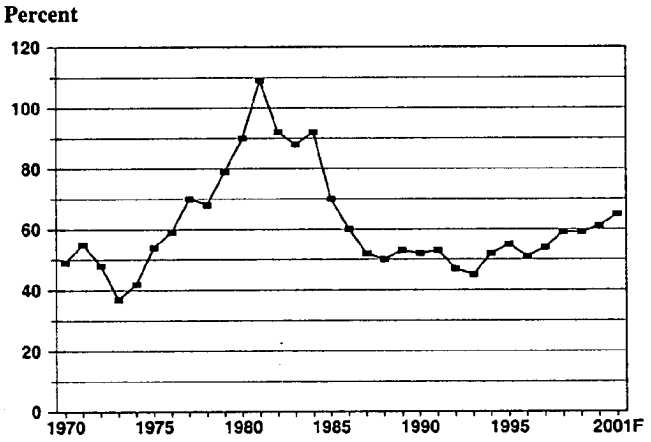
Value of U.S. Agricultural Exports



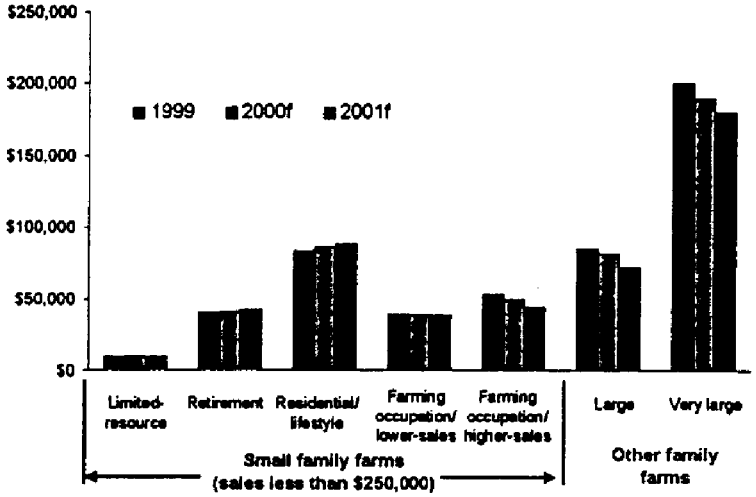
Indexes of Prices Received by Farmers



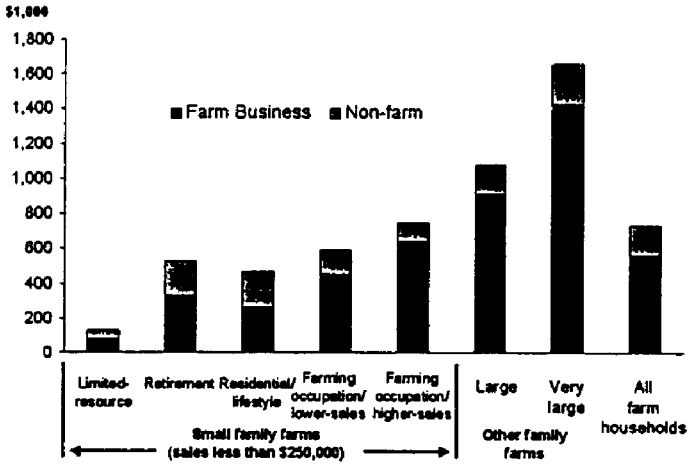
Farmers' Use of Debt Repayment Capacity, 1970-2001



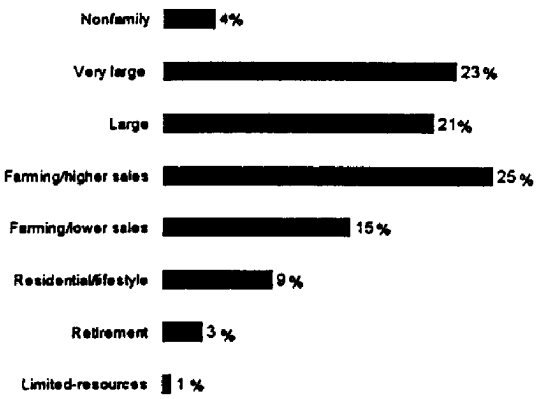
Farm household income expected to decline in 2001 for households that are most dependent on revenue from farming



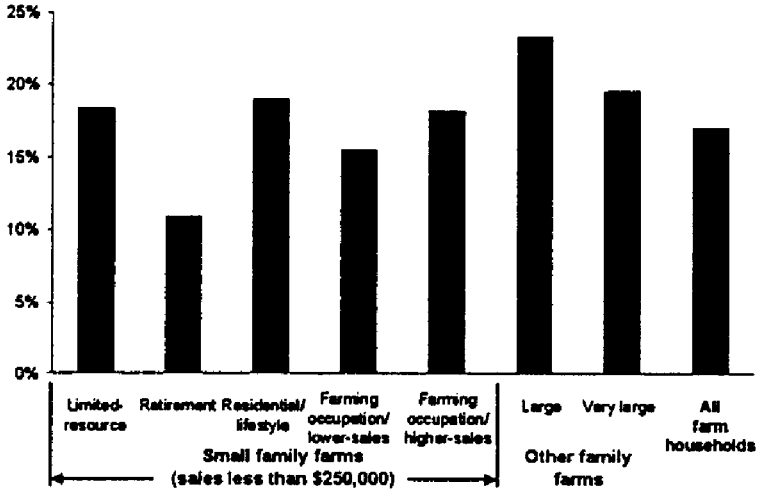
Distribution of farm household net worth by farm typology, 1999



Distribution of direct government payments by farm typology, 1999



The share of farm households with debt repayment problems in 1999 varies by farm typology.



Senator COCHRAN. I appreciate very much the obvious hard work that has gone into the preparation of the statements for the subcommittee this morning by our witnesses.

I have made some notes and have some questions to ask. But before I do that, I am going to yield to my good friend from Wisconsin, the Senator from Wisconsin, the Ranking Member of this subcommittee for any statement that he wishes to make, and any questions.

Remembering that we do have a Senator from South Dakota, who got here before you did, I am going to recognize you anyway.

Senator KOHL. Well, I do thank you.

Senator COCHRAN. He will be patient.

PREPARED STATEMENTS

Senator KOHL. And I thank the Senator from South Dakota.

I have a statement for the record and I will proceed to a few questions that I would like to ask.

Senator COCHRAN. Your statement and those of any other members will be included in the record.

[The statements follow:]

PREPARED STATEMENT OF SENATOR HERB KOHL

Thank you, Chairman Cochran. I would like to welcome our panel here this morning and I look forward to hearing from all of you on your views regarding the status of today's farm economy.

I would also like to congratulate Mr. Hunt Shipman on his new position at the Department of Agriculture. Hunt, throughout your tenure, more than a decade with the distinguished Senator from Mississippi, Chairman Cochran, you have been an outstanding public servant for all of American agriculture. I want to thank you for all you have done for this Subcommittee and congratulate you on your new position.

The facts are clear. Our agriculture sector is changing. America has come a long way from the days when a vast majority of our people lived, worked, and depended on the land for survival. New technology resulting in more efficiency means we are producing more with less. Today, roughly 2 million farmers and ranchers feed us and the world. However, low prices in most commodities continue to place economic stress on our farms and rural economies. We see more and more farmers finding jobs off the farm to make ends meet. We continue to face the problems of urban sprawl that threaten our arable land. And increased concentration and consolidation in the industry shrink producers' ability to receive a fair price for their product.

We can and we must do better for our farmers. Congress has provided nearly $25 billion in supplemental assistance over the last three years. But that is not the only answer. Today, half of total farm income comes from the government—and let me tell you, no one in this room or out on the farm is proud of that fact. This morning I want to hear from you on how you think this Subcommittee should craft an appropriations bill that provides the right combination of funding for important programs that will equip our farmers and ranchers with the tools they need to protect their land, market their products, and make a living.

The dairy industry has been particularly hit with depressed prices. This is devastating to my State of Wisconsin—America's Dairyland. In order to help keep farmers in business I have worked with Chairman Cochran and others to provide emergency supplemental assistance to dairy producers over the past three years. If this supplemental assistance is ever to be reduced, we need something different. We need a national and equitable program to treat all dairy farmers fairly. Regional Compacts are not the answer. I have worked with Senator Santorum from Pennsylvania on a bill that is an attractive alternative to regional cartels. That bill is S. 294, the National Dairy Farmer's Fairness Act. I look forward to the Administration's support of this legislation.

The challenges that face today's agriculture sector are vast and far-reaching. Today, we need from you advice on where you think this Subcommittee needs to focus its work this year. I look forward to working with you and the Secretary on making sure we provide the necessary funding to meet the demands of our agriculture community.

Again, thanks for testifying this morning and I look forward to hearing from each of you.

PREPARED STATEMENT OF SENATOR TIM JOHNSON

Thank you Chairman Cochran, Ranking Member Kohl and members of the subcommittee, I am pleased to participate in today's subcommittee hearing on the state of the agricultural economy and steps to provide assistance to America's family farmers and ranchers during these tough economic times.

I welcome Keith Collins, Chief Economist for the United States Department of Agriculture (USDA) and Hunt Shipman, Acting Undersecretary of USDA's Farm and Foreign Agricultural Services. I look forward to their insight on the agricultural economy and about what USDA is doing to provide support to producers.

Mr. Chairman, simply put, America's agricultural economic engine is misfiring, it's just not hitting on all cylinders. Since agriculture comprises a significant share of the economy in South Dakota (one-fourth of the total economic output in my State, more than double that of any other industry in South Dakota) the poor agricultural economy is leaving South Dakota's overall economy vulnerable to weak conditions as well. Unfortunately, a host of factors are contributing to this weakened condition which began late in 1997 (early in 1998).

First, our nation's family farmers and ranchers have experienced a price crisis of near-historical proportions. Nationally, soybean prices have collapsed to a 29-year low, and corn and wheat prices are hovering at a 15-year price low. In South Dakota, the prices farmers received for major cash crops (such as corn, soybeans, and wheat) just last month were substantially lower than when the current farm bill was enacted, and with the exception of wheat, prices are even lower today than they were just one year ago. (Due to a dry fall, volatile winter, and wet spring, acres of wheat will be lower across South Dakota and the country, and overall, winter wheat conditions are below average throughout South Dakota and other regions of the U.S., leading to higher futures prices and higher cash bids at local elevators today.)

[In bushels]

Crops	April, 2001	1 Year Ago	1996	Change from 1996
Corn	1.69	1.85	3.55	−1.86
Soybeans	3.97	4.87	7.00	−3.03
Wheat	2.81	2.54	4.77	−1.96

Tough economic conditions for farmers have been perpetuated by a series of weather-related disasters in certain regions of the country. Entire crops have been wiped out by flooding, drought, hail, and wind in many areas of South Dakota the last few years. Furthermore, surplus crop production—both here and abroad—weak global demand, marketplace concentration, and an inadequate farm safety have all contributed to the current farm crisis.

So, just when farmers thought their condition could not get worse, the cost of energy-related inputs like fuel and fertilizer have skyrocketed. In addition, USDA economists predict repair, equipment, marketing, and labor expenses for farmers to increase in 2001. Given the input-intensive nature of production agriculture, a combination of increased production expenses and decreased prices situates farmers and ranchers in a price-cost squeeze that makes it nearly impossible for them to earn income that covers expenses.

As a result of a woefully inadequate farm bill, Congress has enacted multi-billion dollar disaster programs in the last 3 years—a record $28 billion in fiscal year 2000. It should be noted direct government payments accounted for around three-fourths of net cash income for major field crops in 1999 and for about two-thirds in 2000. In many States, farmers are receiving more of their total net farm income from the government rather than from the marketplace. Was this the promise of the 1996 farm bill? I certainly hope not.

Clearly, the 1996 farm bill fails to provide a meaningful, fiscally-responsible, safety-net for farmers when prices are poor on an annual and sustained basis. Already, we have worked to carve out nearly $9 billion in supplemental assistance for 2001 because many Senators joined my effort on the budget resolution to provide for this emergency reserve this year. (It is yet to be seen what the budget resolution conference committee will do with this Senate passed provision of $9 billion in 2001 emergency aid.) This 2001 crop year assistance—if passed—will become the fourth consecutive emergency aid package for farmers and ranchers likely to compensate producers for low prices and potential production losses resulting from weather-related disasters. Obviously I will support this, but I would suggest farmers and taxpayers deserve better. That is why I offered an amendment to the Senate budget resolution to provide over $88 billion from fiscal years 2002 through 2011 in order for Congress to write a new farm bill. Unfortunately, my amendment was defeated, but we did work to restore nearly $58 billion over the same period for a new farm bill re-write.

I believe Congress can and should amend current farm policy immediately to provide a more predictable, secure safety-net for farmers in 2001 and 2002—essentially

modifying the farm bill now instead of waiting until it expires. It is time for a new farm bill that provides a meaningful income safety net, is reasonable in cost to the American taxpayers, yet assures some level of economic security for our nation's family farmers and ranchers.

One farm bill alternative I have introduced is S. 130, the Flexible Fallow farm bill amendment. Under my proposal, farmers electing to devote a portion of their total crop acreage to conservation-use receive a higher loan rate on their remaining crop production. On an annual and crop-by-crop basis, farmers can choose to conserve up to thirty percent of their total crop acreage. An adjustable loan rate schedule is a key feature of Flex Fallow. With the exception of wheat and soybeans, the proposed base loan rates for zero percentage participation in Flex Fallow (full production) are set at 2001 levels. Participation in Flex Fallow is directly proportional to increased loan rates. For corn, wheat, and soybeans, loan rates increase by one percent for each one percent increase in conservation-use.

Iowa State University economist Neil Harl believes my Flex Fallow proposal is "the missing link to the 1996 farm bill," because it works in a market-oriented fashion yet provides an income safety net.

USDA's proposed budget adequately addresses some of our agricultural, trading, and food safety priorities. Yet, I believe it fails to make some specific and significant investments in a secure farm safety net, conservation programs, efforts to restore marketplace competition, and rural development. Moreover, despite the fact that over 20 major farm and commodity groups in the country—from Farm Bureau to Farmers Union, and including cattlemen, pork producers, corn, wheat, dairy, soybeans, cotton, rice, sugar producers, and others—have asked for increased support for a new farm bill and additional emergency aid for farmers and ranchers at levels similar to that of last year, the proposed USDA budget includes no support for a new farm bill or room for emergency aid—save the so-called contingency reserve. I am disappointed that USDA's budget does not include funding for a new farm bill that will ensure economic security for family farmers, ranchers, and rural communities now and into the future.

I am specifically concerned about the cuts or elimination of funds in fiscal year 2002 for important conservation programs such as the Wetlands Reserve Program, the Wildlife Habitat Incentives Program, and the Emergency Conservation Program. Farmers, other landowners, and society as a whole continue to desire more options to ensure the proper stewardship of our nation's soil and water resources. With agricultural conservation programs oversubscribed by nearly six times the available funding, this is clearly the wrong direction to take with conservation funding, and I plan to work in the subcommittee to secure funds that promote greater use of conservation programs instead of cutting or eliminating them altogether.

Thank you Mr. Chairman, this concludes my opening statement. I look forward to asking questions of the witnesses.

PREPARED STATEMENT OF SENATOR BYRON L. DORGAN

Mr. Chairman, I would like to welcome Hunt Shipman, the Acting Deputy Under Secretary for Farm and Foreign Agricultural Services, to this hearing today. I probably should say welcome back, since the Under Secretary was, until recently, working for the Chairman of this Subcommittee. I also want to welcome USDA's Chief Economist, Keith Collins, to this hearing. Thank you both for coming.

Last week, the Chief Economist and I fenced some about when the Quality Loss portion of the Crop Loss Disaster Program was going to be implemented. Today, I want to assure both of you, and the employees of the Farm Service Agency, that I understand the complex nature of the legislation. I also want to thank the Agency for all the hard work that has been put forth by everyone involved. I have never doubted that the Agency was not trying to get this program out to the farmers at the earliest possible date.

Having said that, I still want to impress on you the need to get the notice for this program published. We all know that there will be some lag time after publication to allow for county office staff training and to get the software finished and downloaded. I urge you to include in the publication examples of how the program will be implemented so that farmers and their bankers have some way to estimate the assistance that will be forthcoming to them.

Discussing the implementation of disaster programs allows for a very good segue into the topic of FSA staff levels. You have acknowledged the difficulties facing FSA as they try to deliver Congressionally mandated programs over the last few years. The Administration's budget provides level funding for FSA full time staff particularly in the field. It is my belief—and that of many county level FSA employees who

deal directly with farmers—that there is a need for more help in those county offices.

In a visit to a local FSA office in a fairly large county in North Dakota, I asked about staff needs. A seasoned veteran of many years told me that the office had experienced a Reduction In Force of seven Full Time Employees from the peak years of employment in the 1980s, but that the workload that was being asked of them was larger than anything she had ever experienced since coming to work in the office.

Now, we all know computerization can make an office more efficient, but technology can't make up for that many people. I am concerned about the personal stress that is being placed on these workers and their families. I don't think that we are doing all we can to alleviate this problem.

We know from the Chief Economist's testimony that USDA will need to continue to be an integral part of a farm's operation for the foreseeable future. I have asked County Executive Directors what Congress should do, and have been told an additional full-time employee in many of these county offices would make all the difference in the world.

All the major farm and commodity organizations, including the American Farm Bureau, the National Farmers Union, the National Association of Wheat Growers, the National Cotton Council and the National Corn Growers, to name just a few, have requested emergency assistance for farmers once again this year. As we are well aware, nothing has changed in the farm economy, and this Subcommittee will need to address these needs.

Mr. Chairman, as the fiscal year 2002 Agriculture Appropriations bill moves forward , I hope this Subcommittee will consider addressing fully the needs of America's farmers, and the FSA staff who serve them at local county levels.

PREPARED STATEMENT OF RICHARD J. DURBIN

Chairman Cochran, thank you for holding this important hearing today. I would like to welcome Hunt Shipman, Acting Deputy Under Secretary for Farm and Foreign Agricultural Services to the hearing this morning, and Chief Economist Keith Collins. I appreciate the opportunity to continue the budget discussion we started with Secretary Ann Veneman on April 25.

The mission of Farm and Foreign Agricultural Services is to ensure the well-being of U.S. agriculture through delivery of commodity, credit, conservation, insurance and export programs.

Although the Department's fiscal year 2002 budget is a good start, I am concerned that it is insufficient to meet the Farm and Foreign Agricultural Services mission. I've noticed that the Department's fiscal year 2002 budget contains no emergency funding. The Administration is relying on its proposed National Emergency Reserve Fund or Contingency Reserve Fund—neither of which exist at this time—to provide farmers with Federal assistance.

The proposed Emergency Reserve Fund would only be given $5.6 billion in fiscal year 2002 to respond to all types of disasters, including floods, earthquakes, hurricanes, droughts, and the kinds of emergency payments farmers will need. While I am open to efforts to prepare for unexpected emergencies, the continuing farm slump is different. We know the need. Congress has appropriated more than $5.6 billion for farm assistance alone in each of the years since the farm economy's downturn began.

As for offering the Contingency Reserve Fund as an option for funding, this approach pits farm aid against Medicare, Social Security and defense spending needs. I wonder, how is relying on these reserve funds, which compete with other national needs, a responsible method for ensuring our farmers get the support they desperately need?

Congress has provided approximately $25 billion in emergency agriculture aid since 1998. Farm groups have requested up to a $12 billion increase in the agriculture budget for fiscal year 2002 in anticipation of another year of depressed commodity prices and higher input costs. The Senate passed an amendment to the budget resolution that would allow for $9 billion in additional emergency agricultural assistance this fiscal year. I supported that measure.

My colleagues will not be shocked to learn that government payments in 2000 made up nearly half of net farm income. The USDA predicts that without government payments, farm income will fall in 2001 to $4.1 billion. A recent study by the University of Illinois shows that Illinois farm income is up slightly in 2000, but that government payments still account for 21 percent of gross farm returns. In fact, many families have to go off the farm to earn money to pay for simple living ex-

penses and income and Social Security taxes. I am also concerned that the budget provides zero-funding for popular conservation programs such as the Wetlands Reserve Program and the Wildlife Habitat Incentives Program. It also under funds the Environmental Quality Incentives Program, despite strong support from producers and Congress to raise funding for this program.

In fact, the Illinois Delegation has proposed an innovative approach to improving water quality by asking producers to work together to prevent pollution of the Illinois River Basin. It is called Illinois Rivers 2020, and it relies on many of the zero-funded and underfunded agriculture conservation programs. I'll be asking Chairman Cochran and Senator Kohl for their help in funding this innovative program.

Farmers are increasingly faced with environmental challenges, and many of these programs face a serious backlog of applications that outstrip available funding. If we ask them to be better stewards of their land then we must provide them with the resources they need to accomplish this goal. I hope the Administration will work with Congress to improve conservation funding.

Allow me to touch briefly on export programs, in particular, foreign food assistance. Just this morning I joined Ambassador George McGovern and former Senator Bob Dole in front of the Capitol to introduce a bipartisan bill to create an international feeding program for children in need around the world.

It is estimated that nearly 300 million children throughout the world go to bed hungry at night. And of those children, some 130 million kids don't attend school mainly because their parents need them to stay at home or work to earn income for the family.

This legislation is based on a proposal by Ambassador McGovern and Mr. Dole, who are the fathers of the U.S. school lunch program. By amending the Public Law 480 program, the bill authorizes the USDA to work with private voluntary organizations, cooperatives and international organizations, such as the World Food Programme, to feed and create incentives for children to stay in school.

Just as this surely will benefit children, it will also add value to agricultural products at home. This proposal will benefit agricultural producers, processors, millers, packaging manufacturers, rail and motor transportation and commercial shippers and ports.

I appreciate the Administration's commitment of $300 million in surplus commodities for the Global Food For Education Initiative pilot program, which jump started the McGovern-Dole proposal. I hope the Administration will support this new legislation.

Mr. Chairman, again thank you for the opportunity to raise these issues.

DAIRY POLICY

Senator KOHL. First I would like to discuss dairy policy, gentlemen. Dairy policy in the United States continues to include features that are particularly harmful to the Upper Midwest, which, as you know, is one of the primary dairy production areas in our country.

One component of this flawed policy is the introduction a few years ago of regional dairy compacts—a Northeast dairy compact in particular. To make matters worse, the House of Representatives just this week introduced legislation to expand, as you know, the concept of dairy compacts to many other States.

President Bush has said he wants to establish free trade in all of the Americas, which would be a comprehensive free trade agreement between the 34 democracies in the Western Hemisphere. I think that is a great idea. I am very supportive of that.

But I would strongly suggest that before the President seeks free trade among 34 countries, or along with that, he must also guarantee that we continue to insist upon free trade among the 50 United States, which has been characteristic of our economy since the first day of our country's inception, as you know, and which many people would argue is the miracle of our economy. Among the 50 States, there are no restrictions. There have never been any restrictions on the free flow of goods and products in our country.

Last year, the Congress again provided financial assistance to dairy producers suffering from historic low prices. While prices have rebounded somewhat, they are still far below the cost of production. And Wisconsin and other States continue to have great difficulty.

I have just three questions. Does the Bush Administration believe that it is important to continue to move agriculture products as well as all other products and all other services freely throughout the United States?

And if there are any reservations or any suggestions that you are not sure, or you cannot speak for the Administration, please say so.

Mr. SHIPMAN. Mr. Chairman and Senator Kohl, the Administration obviously understands the point of your question and has not taken a position on dairy policy thus far as a part of an overall Farm Bill strategy for this coming year. Obviously, the points that you make are well taken.

Senator KOHL. You are not saying anything. I will not stop until you say something. Are you saying that the Administration may be prepared to depart from that policy, which has been the hallmark of the American economy since the beginning of this country? Are you saying that is a possibility?

Mr. SHIPMAN. Senator, I think one could argue that our current milk marketing order system does not provide for unencumbered trade among States in dairy products as it is right now.

Senator KOHL. I agree with that.

Mr. SHIPMAN. So for me to answer your question with respect to the future would be to take a position on dairy policy that this Administration has not taken thus far.

Dr. Collins may be able to add more to it.

Mr. COLLINS. Well, I will not venture into the policy arena here. But I will make a factual observation that may assuage you, Mr. Kohl, and that is that the Northeast Dairy Compact, certainly one feature of this problem of moving milk freely in the United States, expires at the end of September and the President's budget does not have a proposal in it to continue the Northeast Dairy Compact. That is simply a factual observation.

Senator KOHL. Okay. And of course, that is very encouraging to hear.

One of the Senators from the Northeast States has gone on record as saying in published remarks in some of his hometown newspapers that he fully expects it to be continued just as it was incepted, 4 years ago by just sticking it into a year-end omnibus bill, which has several hundred thousand components to it. If they cannot get the votes, and they have not been able to get the votes—that is the way they hope to have it continued-the way it was originated.

And, I am arguing for Wisconsin, but as I hope you are able to perceive, I am arguing a bigger principle.

If I were just arguing for Wisconsin, you win some, you lose some and that is the way it goes. But this whole business of suggesting that we are—we may be willing or the Administration may be willing—just as the Clinton—this is not partisan here. The Clinton Administration allowed it to happen too.

So I am not speaking here as a Democrat to Republicans, but I would like to hope that this Administration—more so than the Clinton Administration—is committed to the principle of free trade in this country.

And that there is nothing that unique about the dairy industry. It is a commodity, you know. I mean, it is not all that much different from wheat or grain or corn or strawberries or so many other items that we might mention in the agricultural sector that need to have access throughout our country, if they are going to be able to sustain themselves.

The dairy industry arguably is the same thing, with problems. But the other agricultural sectors, as you know, have problems too.

So, the question is why would we make an exception for dairy or why would the Administration, so committed to business as they should be? I am a businessman. That is my background, whether you know it or not. That is my background.

Mr. COLLINS. Right. Well, I would just——

Senator KOHL. This is god-awful policy. It really is.

And I would like to hope that this year the Administration is prepared to do whatever it takes not to allow this to become a part of—because it will come down the pike in different forms next year and next year and next year, if we allow it to, go on this year.

There will be other commodities and other industries and other services that will begin to ask for the same kinds of protections. And they will now have had something to point to.

You know, if we started with this industry, then why would we be prepared to say no to the next Senator from the next State that would like to protect their particular industry? And then where does it stop, except in really hurting the American economy?

I am sorry, Mr. Collins. I know you were going to say something.

Mr. COLLINS. It would probably be more prudent not to.

But I guess I would say that, the Administration has not confronted this yet and the resolution of that, well, as you point out, would be an exercise in political economy.

But I think from our point at USDA, one of the things we can certainly point out is what the effects are on the economy of having not only a compact in one area of the country but a broadened one in many other areas of the country.

And there have been lots of studies done and you have certainly seen them. The studies indicate potential to cause a disruption in the most efficient use of our resources in this country.

They do provide some benefit to the producers in the compact area. Economists have looked at that and agreed with that.

Compacts also have said that is probably not a very efficient way to benefit the producers in that area. So I think, our job will be within the administration as they confront this issue to try and bring an informed discussion of all the effects of this kind of policy to their attention and hope that a good solid, reasoned decision is made.

Senator KOHL. Just to add what you said about benefitting the producers. As you know, almost every impartial estimate has come to the conclusion that benefitting producers does not benefit the consumers.

Mr. COLLINS. Oh, absolutely.

Senator KOHL. And for every producer, there are 10,000 or 20,000 consumers.

Mr. COLLINS. I do not disagree with that.

Senator KOHL. I mean——

Mr. COLLINS. I think that is true.

Senator KOHL. You know, it just does not make any sense.

Now, in connection with that, as you know, Senator Santorum and I have introduced a bill, S. 294, which would establish a counter cyclical national dairy program, which in effect means that if we get below $12.50 a hundred weight, we begin to respond to producers.

Would you care to comment on that in any way you wish?

Mr. COLLINS. Well, I have not really looked at all the details of your bill. It provides producers a direct payment when milk prices go below $12.50. From an economic point of view, some of those provisions if they are closely tied to a producer's production decision, cause me a little bit of concern, because they blunt the response that you would like to see when prices get low.

People have complained continually over the last couple of years that in the face of low prices, American agricultural production has not cut back. One of the reasons it does not is because we provide lots of payments to producers, so that they do not necessarily see the full force of lower market prices.

Understanding that lower market prices cause some pain on producers, nevertheless that is how you get adjustments in markets. So to some extent, proposals that would provide producers payments that are tied to their production—and I do not know if this is tied to their production, but if it is, it tends to blunt the market response, which is a concern.

On the other hand, I would say that dairy producers have just gone through a very difficult year in the year 2000. They had milk prices that were at a 9-year low and so, you can make a case for providing some financial assistance.

There are those all kinds of countercyclical programs. The only general concern I would raise is that would be considered as amber and subject to discipline under the WTO would cause an economist some concern because it would be production distorting.

DAIRY EXPORT INCENTIVE PROGRAM

Senator KOHL. Okay. I would like to ask a question on the Dairy Export Incentive Program (DEIP).

The President's budget provides for just a slight increase in the Dairy Export Incentive Program from the previous year. However, it is my understanding that there are approximately 40,000 tons of non-fat dry milk awards that had been allocated under DEIP, but for some reason were never shipped.

Although industry requests have been made for this tonnage to be reallocated, the previous Administration had taken the position that a reallocation would be in violation of the United States WTO commitments.

Further since the Article Nine rollover authority expired on June 30th, 2000, these unshipped quantities cannot be made available under DEIP.

Is the Article Nine rollover authority expressly tied to previously allocated but unshipped tonnage in addition to previously unallocated tonnage? Do you have any response to that?

Mr. SHIPMAN. Senator, if I might, if you would allow me to ask Mary Chambliss——

Senator KOHL. Sure.

Mr. SHIPMAN (continuing). Our acting General Sales Manager, as well as our acting administrator of the Foreign Agricultural Service.

Senator KOHL. Thank you.

Ms. CHAMBLISS. Good morning, Senator. I will try to shed some light on your question and then, because this is a somewhat complicated issue, with our colleagues in the dairy industry, which we have discussed frequently, I will also provide more information for the record, if that is acceptable.

[The information follows:]

Question. Is Article 9 "rollover" authority expressly tied to previously allocated but unshipped tonnage in addition to previously unallocated tonnage?

Answer. The U.S. had already used the maximum flexibility allowable under Article 9 "rollover" for nonfat dry milk by bringing forward DEIP allocations un-awarded in previous years prior to the June 30, 2000 expiration of that provision.

Question. Does the current Administration take the view that a reallocation of unshipped tonnage under DEIP would be a violation of our WTO commitments and if so, what action will USDA take to better ensure that all allocations are actually shipped?

Answer. Authorizing the export of awarded but unshipped dairy product tonnage would be inconsistent with the established U.S. methodology for reporting export subsidies to the WTO and would likely be viewed by our trading partners as an attempt to circumvent our subsidy reduction commitments. We are now engaged in negotiations in the WTO to further liberalize trade in agricultural products, including the elimination of export subsidies. Taking steps that would be viewed by many as a circumvention of our current export subsidy commitments would be detrimental to our efforts in those negotiations. The Department is reviewing whether re-announcement of canceled tonnage within the confines of an allocation year can be accomplished. If it is decided to modify the DEIP operations to allow for this, it is expected that this action would alleviate the majority of any problems with unshipped tonnage.

Mr. CHAMBLISS. I am familiar with the rollover issue. It really goes back to the original position we took in the Uruguay Round and gets back to the base period and how we, in that negotiation, identified our base period.

It did not include rollover tonnages, because the base period allowed us to maximize our capabilities under the dairy export subsidy program, which is why we did not undertake the rollover.

As you note, of course it expired at the end of June. You are probably also aware that this year we have had quite a bit of success with commercial dairy exports. They have done quite well. They did very well last year. And they are doing quite well this year.

The next year begins July 1 and, as you know, the budget provides $42 million for the DEIP program, for next year.

We are also looking internally at different ways that we administer that program to see if there is some flexibility that might be even more helpful to the dairy industry and we are continuing to undertake that review. Thank you.

Mr. COLLINS. And can I add one thing to that? Your question was about Article Nine. In my view, Article Nine is binding here.

Ms. CHAMBLISS. Yes.

Mr. COLLINS. Article Nine says that in the last year of the agreement, we have to have our DEIP authorizations down to a fixed percentage of what they were in the base period. So you cannot add beyond that, or you go above the fixed percentage.

Prior to the last year, the first 5 years of the implementation period, you could go above that. You could roll over.

But when you get to the last year and beyond in the Uruguay Round agreement, Article Nine—without being a lawyer, just my reading of it—says to me that our DEIP bonuses have to be within a fixed percentage of our base period.

Senator KOHL. Okay.

Ms. CHAMBLISS. Which is what the $42 million would reflect.

Senator KOHL. Right.

Ms. CHAMBLISS. Yes.

Senator KOHL. I will just ask one other question, Mr. Chairman——

Senator COCHRAN. Sure.

Senator KOHL (continuing). Then I will submit the other questions for the record.

I appreciate your statements on the importance of trade to the agricultural sector and I agree that we must stay vigilant to protect our place in those markets.

However, we must also be careful not to rely too heavily on exports. As we learned in recent years, following the Asian economic collapse, U.S. agriculture should not be left to the fragile whims of foreign economies.

One trade issue that currently faces the dairy industry is dramatic increase in milk protein concentrates, MPC, imports. To what extent are milk protein concentrates displacing U.S. dairy products in domestic markets?

Does the USDA take the position that MPC's are subject to review under the WTO? If not, will USDA take actions to ensure that they become subject to such review?

And if the Administration is not willing to take a strong stand to stop MPC's, which can devastate the U.S. dairy sector, what signals does that send to our trading partners about our willingness to stand firm on interests of great importance to U.S. agriculture?

Mr. COLLINS. Senator, I would make a comment on MPC's. This is an issue, which has gotten larger over the last couple of years as imports of dry milk protein concentrate have grown.

GAO has recently completely a study on this and pointed out that they have grown by 600 percent since 1995.

Nevertheless, they are still a fairly small percentage of our total milk balance sheet. The problem here, of course, is this is a product that did not exist when we set tariffs and quotas.

This is a product that comes in at 70 to 90 percent protein. At the time we set all these quotas and tariffs, basically, everything we were importing had less than 40 percent protein.

So it is a product that is not subject to a quota and a very minimal tariff. So we are constrained to the extent that we can deal with this.

You can certainly deal with it, with a trade case, like a section 201 or 301, if the imports were to be shown to be disruptive or dumped.

It is also an issue that could be brought up at the next WTO discussions. It is really not unlike the situation we had with stuffed molasses and sugar, or peanut paste imports from Mexico, all of which were products that were not imported when we set tariffs and quotas, or when we tariffed and set quotas. And so it is a difficult issue in that regard.

The only thing I could say is it has been brought to our attention. We are looking at it. And I cannot tell you how or what we would propose to resolve it at this point.

CRANBERRY MARKETING

Senator KOHL. Okay. As I turn this hearing back to the Chairman, I just want to make this comment to you, Mr. Shipman: When Secretary Veneman testified before the subcommittee last week, I asked her about the status of the cranberry market volume reduction order that is important to cranberry growers, not only in my State, but in other States as well.

Secretary Veneman assured me and this subcommittee that action would be taken within days. And I noticed that nothing on the subject has been published in the Federal Register since last week's hearing.

I understand that the statement is "in the works." Is that right?

Mr. SHIPMAN. Yes, sir.

Senator KOHL. Does that mean it is going to get done very shortly or what?

Mr. SHIPMAN. I think you have quoted Secretary Veneman correctly in quantifying the time before action is taken on this as a matter of days. That is an accurate statement.

There were some decisions that had to be made within USDA in order to prepare the final documentation necessary. Those decisions were made in the time frame that she talked about. And the final paperwork is in the final clearance in USDA, and since today is Thursday, I will not promise it to you before the end of this week, but certainly by next week, I think we will have something ready to go.

Senator KOHL. That would be great. And I thank you very much. And I thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

The Senator from South Dakota, Mr. Johnson.

FARM ECONOMY

Senator JOHNSON. Well, thank you, Mr. Chairman. And I too want to join in welcoming Mr. Collins, Mr. Shipman and Mr. Kaplan to the Committee today.

The U.S. Ag economy engine is misfiring. Although we have had a remarkable decade in the past, the economy as a whole, our Ag economy and rural economies tend to struggle all across this country.

With a price crisis—with soybean, corn and wheat prices all around 15-year lows in terms of prices and now coupled with high-energy related costs impacting not just fuel, but fertilizer as well,

it has put a lot of our producers in a very difficult price cost squeeze in America.

We have offset some of that over the last three years, as you have indicated in your testimony with multi-billion dollar disaster legislation, a record $28 billion in fiscal year 2000. And the discussion is already in early stages about what level of relief is likely to be next year.

But with the producers of grain and—and—alike all across my home State, there is a lot of headshaking about this.

They recognize that it has put a lot of money out in the countryside, but it is not sustainable and it is not the philosophy our producers, where they want to grow dependent on to this degree either way.

The whims of political budgetmaking in Washington is not something that they can take to their banker. It is not something that they can rely on. And we have found ourselves, I think, in an Ag income strategy that almost everyone would concede is not the long-term solution to our problems in rural America.

NEW FARM BILL

We are going to begin debate later this year on a farm bill and on mechanisms for improving the farm safety net. And I would like to ask Mr. Shipman, do you have any early notion about a time frame whereby the Administration would be proposing concrete farm bill strategies for this Congress?

Mr. SHIPMAN. Senator, let me just say that Secretary Veneman is very cognizant of the time frame that is being contemplated, both by Chairman Combest as a part of the budget resolution, and in the interest of members in trying to proceed with dispatch on a farm bill strategy here within the Congress.

And certainly she intends for the Department to be actively engaged in that discussion. And we will—as soon as we can have, hopefully, a full complement of undersecretaries confirmed by the Senate, we will be able to engage in that with all of the power that they will bring to us.

Senator JOHNSON. Well, I appreciate that you are still in a transitional mode here a bit, and I understand that. But I have to urge very expeditious progress in this matter.

We need the White House to be engaged in this debate, and sooner rather than later, as we come together both on the budget and on the policy side. How on earth are we going to break out of this dependence on ad hoc disaster legislation, which is a disaster in its own right?

I also have some concern about what many people around the country are interpreting as a bit of a retreat on the part of the Administration from our commitment to conservation programs.

With reductions in wetlands reserves, wildlife habitat and emergency conservation programs, it would seem to me that these are areas where we could create win/win strategies, which are WTO legal, which have a good environmental and family producer consequence.

And I would hope that we do not leave green strategies out of the overall mix of where we are going to go with the next farm bill.

BIOENERGY PROGRAMS

I am also concerned, as we talk about energy, about the future of last year's legislation to create a bioenergy program and whether the $150 million that was in that program, which has been instrumental in helping to promote bioenergy production to move ahead.

We have four or five ethanol plants underway in my home State of South Dakota. Some of this funding has been helpful in that regard. And I would hope that the USDA would remain an active partner in helping to promote these alternative, especially plant-based, energy strategies.

Any comment, Mr. Shipman, about where you see USDA coming down on those kinds of programs?

Mr. SHIPMAN. Senator, Dr. Collins has been participating in some energy discussions within the Administration, and I will ask him to comment, too.

But before I do that, let me just say that I think part of the Secretary's strategy for the farm bill, as she has articulated it thus far, has been that all options are on the table. And she wants all the interested and involved parties around the table to discuss that.

And I think she is committed to doing it, and we are committed to making sure that we are actively engaged in that.

Mr. COLLINS. Mr. Johnson, I think when you talk about the problems in the farm economy, certainly, you know, one hope for the future is that we can dramatically expand the non-food use of farm products. And energy would be a big part of that. So I think this is certainly a bipartisan issue.

I think the last Administration has and, this Administration is going to be committed to trying to do that through the tools of research and programs.

Our budget proposal for 2002 in energy research and programs in USDA is about $245 million. Our discretionary budget proposal is $82 million for energy. Two years ago it was $73 million.

So we are trying to increase our research on energy, not just ethanol, but biomass generally, including biodiesel. We have an expanded research program. We are redirecting some funds in ARS as well. And the CC Bioenergy Program that we are running this year is in our budget again for next year. And we think that is helping.

As you probably know, there is something like seven ethanol plants under construction right now nationally. There is a bunch more about to go under construction.

There are about 40 ethanol plants that are expanding their capacity right now. The most recent data we have got was for the month of March. Ethanol production was 113,000 barrels per day, which is equivalent to about 1.73 billion gallons per year.

Last year, we ran about 1.6 billion gallons. As I mentioned in my comments, we had 18 consecutive months of record-setting ethanol production. So we are on a bandwagon for ethanol.

And what we need to do now is make sure we have resources to help with some of these other areas where we are not as far along, where the economics are not as good. And I think we are going to try and do that.

Senator JOHNSON. Lastly, because I know that my colleague from North Dakota wants—has some questions as well, I was struck by your testimony, Mr. Collins, where you indicate that 80 percent of all farmers or their spouses are employed off the farm. And in recent years, about 90 percent of total income of the average farm household is derived from off-farm sources—90 percent from off-farm sources.

You then go on to note that farm operators averaged over $64,000 in total household income in 1999; actually, 17 percent higher than the average income of all U.S. households.

I can tell you I have an awful lot of South Dakota farm operators who do not have $60,000 off-farm income opportunities in their communities and in their counties. And while that average sounds high, I wonder if you have any offhand notion of what the median would turn out to be——

Mr. COLLINS. Not the median, but I could add——

Senator JOHNSON (continuing). In terms of farm operator income.

Mr. COLLINS. I could add a couple of points to this. Your observation is a good one. You have to be careful with averages, no matter what you are looking at.

That data reflects the fact that when we go out every year in February and we do our farm financial survey, one of the first questions we ask farmers is, "What is your principal occupation?"

Sixty-two percent of all the farm operators tell us it is not farming. It is something else. So the question is: Do you want to count those as farms or not? Well, we do, when we add up all these income numbers.

So you have a whole lot of farm households, over 800,000 that we have called lifestyle or leisure farms. And so they tend to inflate those income numbers.

And we can break those down any number of ways, you would like. One way to break them down is to look at the average household income of those who say their principal occupation is farming versus those who say it is not. Then the income falls a little bit.

For those who say their principal occupation is farming, the average household income in 1999 was about $55,000, which is down from the $65,000 overall average. For those who say it is not farming, their average was over $70,000.

And then when you get into that $55,000, you can break that down into size of farms. And if you look at some of the smaller size categories of farms for which we have hundreds of thousands of farms who are principally engaged in agriculture, I believe for the smallest category, up to $100,000 in sales, and there are several hundred thousand farms in that category, their average household income is about $35,000.

So if you start taking these numbers apart geographically and by size of farms, you can certainly identify several hundred thousand farms that have very low household incomes, well below the national average.

Senator JOHNSON. Thank you.

I yield back.

Senator COCHRAN. The Senator from North Dakota, Mr. Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much.

And thank you for being here today.

I sometimes get a bit despondent when I read through testimony and see the number of agencies and programs within the USDA.

I mean, we such a proliferation of different enterprises going on and I think most of us would think that we have maybe three basic goals.

One is trying to get farmers a decent income, so that during tough times, you have a bridge over price depressions; second, to promote some conservation; and third, promote some exports that contribute to the income; and then fourth, while it is not your primary issue, to make sure we have safe food domestically.

And as I take a look at all of these different enterprises we are involved in, I wonder, to what extent do they contribute to those goals?

But let me ask you a question about the issue of targeting. We have talked about how much money we spent on trying to help family farms in the last 4 years.

We really have not targeted that help. My whole theory is that we ought to be about the business of trying to help family farms and not agro-factories. Agro-factories have the financial wherewithal to withstand price depressions. Family farms do not.

We really do not have much of a targeting mechanism with respect to how we are spending this money, do we?

Mr. COLLINS. Mr. Dorgan, not really. We do not. Our payments are based on sort of the historical evolution of these programs, which are based on a commodity. And we do have payment limits.

Senator DORGAN. What—what kind of income from the government would the larger enterprises have gotten in the last year, on a grain farm, for example?

Mr. COLLINS. We could work out examples for you. I could tell you that generally as farms get larger, this is speaking of all farms nationally, as their sales go up, the percent of their gross income from government payments goes down.

To give you an example, for farms that sell more than $500,000 a year in agriculture products, if my memory serves me right, I think about 8 percent of their gross income is from government payments; whereas if you look at the very small farms, what we call the limited resource farms, those with sales of less than $100,000 a year, with a very small asset base and very small net income, their government payments account for about 25 percent of their share of gross income.

There are a couple of reasons for that. One is some of the very large farms are not crop farms. You know, they tend to be livestock farms, poultry farms, whatever. And the other reason is that it may well be that we see a little bit of the payment limit kicking in on some of those very large farms.

Senator DORGAN. But another way of looking at it is in evaluating the amount of income that goes to the larger farmers, the percentage of income that goes to the larger farmers is much, much higher.

Mr. COLLINS. Oh, yes. Oh, yes.

Senator DORGAN. Second, let me ask you about the trade picture. You have testified today about the strength in dollar, which has an inhibiting design on our trade opportunities.

What do you see happening with respect to agricultural trade in the coming year?

Mr. COLLINS. Well, our current forecast is only for fiscal year 2001 and our projection is $53 billion compared with $51 billion last year.

First of all, the increase is fairly small, but at least it is positive. Most of it is not bulk commodities. It is not corn, for example. It is meats where we expect record volume. And it is horticultural products where we expect record value.

Senator DORGAN. And in your projections for our trade circumstances, do you see the GMO issue playing a significant role in the coming couple of years?

Mr. COLLINS. I really do not. I think that we have certainly heard from some of our potential customers like Japan telling us that they do not want GMO wheat. We have heard from some domestic customers like large food processors that they do not want GMO sugar, for example.

But we do have lots of GMO products, round-up ready soybeans, bt cotton. These represent high proportions of the crop. They are being traded quite competitively and wanted in the world marketplace. And I expect that to continue.

The only real dilemma we have had over the last year has been related to Starlink with its peculiar approval, its bifurcated approval, which generally led to the problem that we have. But we think we are getting by the Starlink problem, at least we hope we are.

We are running a lot of programs at USDA to deal with Starlink, and we seem to be starting to put that problem behind us. That has had probably a minor effect on our corn exports this year.

Mr. SHIPMAN. And, Senator, if I might add to that, as well?

Senator DORGAN. Sure.

Mr. SHIPMAN. You know, part of the budget request this year is to provide additional resources to the Foreign Agricultural Service to address these types of technical issues that seem to be on the forefront of what we deal with most in trade these days.

Those resources will enable us to better combat those, as well as we are continuing to work with our trading partners in Europe and in Asia to ensure that the regimes that they put in place on these are scientifically based and I am confident that we will be able to continue in that regard.

COMMODITY LOAN RATES

Senator DORGAN. You referenced in your testimony the substantial increase in soybean acres. I do not know whether you are familiar with legislation that I have introduced talking about equalization of loan rates.

I contend and I think with some validity that loan rates for wheat, for example, are radically out of synch vis-a-vis the loan rates for oilseeds. I do not propose to bring the rates for oilseeds down. I propose to bring wheat and feed grains up.

Do you surmise that part of the reason for the increase in soybean acres has to do with people planning because of the farm program, the incentive in the farm program to raise oilseeds vis-a-vis wheat?

And if so, is that not exactly the position that we wanted to get out of?

Mr. COLLINS. I think that is certainly a factor. It is complicated this year by the energy cost issue as well, because about 40 percent of the operating costs of producing corn per acre are energy based; for soybeans, energy is only about 10 or 15 percent.

So the energy issue has pushed some people into soybeans this year, but I do think that what we have seen——

Senator DORGAN. The same was true last year, right, in the——

Mr. COLLINS. Not as much last year. Last year, the increase was pretty much just in fuel, diesel fuel. This year, the increase——

Senator DORGAN. I meant the increase in soybean acres.

Mr. COLLINS. Oh, yes. We had 74.5 million acres last year. This year we are expecting 76.7 million. We had an increase last year, and a bigger increase this year, a 3-percent increase this year. That is a sizeable one-year increase, and so I think that energy has added to that.

It probably would have gone up anyway, even if we did not have the big increase in nitrogen costs. And I think the loan rate is certainly a factor in that.

Senator DORGAN. Because farmers and their lenders would take a look at the loan rate and say, "Gosh. This is not about what the market suggests that I should do. It is about what the loan rates suggest I should do. The loan rate is so much more attractive for oilseeds"——

Mr. COLLINS. Sure.

Senator DORGAN. "than it is for wheat or feed grains that—that I really ought to be considering the protection that exists for oilseeds."

Mr. COLLINS. I think that is a factor.

Mr. SHIPMAN. But Senator, I think you cannot look at these issues independently.

If you would go to the Chairman's State, as an example, and look at the current market prices and futures prices for cotton, where soybeans could very well be a substitute crop, farmers are doing the economics and looking at the input costs of cotton for that return versus soybeans and are making market-based decisions as well.

In other parts of the country, energy costs may factor more or less into it. So I think it is dangerous for us to look at farm programs solely and then look at market prices solely and to make those comparisons independently. Obviously, farmers have to look at all those things at once, and I think they are.

Senator DORGAN. But would you not agree that the loan rates are out of whack? I mean, clearly the loan rate for oilseeds is not in synch in terms of cost production and also a 5-year Olympic average of price and so on with wheat and feed grains. Would you not agree with that?

Mr. SHIPMAN. I would agree with Dr. Collins about that and——

Senator DORGAN. And I am not suggesting we should bring the loan rate for oilseeds down. I happen to think that we ought to have better price protection for wheat and feed grains.

All right. Well, I mean there is a lot to talk about and I was almost tempted to talk about amber boxes whenever I hear someone describe these things.

It makes me want to talk about trade some. But I will spare the Chairman and Ranking Member that.

Look—can I just make one point about trade?

Senator COCHRAN. Sure, of course.

Senator DORGAN. This is not about your programs. But do you know that today, on Thursday, every pound of beef that we send from the United States to Japan has a 38.5 percent tariff on it? And that is acceptable to the WTO.

Mr. COLLINS. Well, that is right. That is because the WTO started with everybody's existing levels and went down the same percentage.

Senator DORGAN. It is not going down. It is 38.5 percent with a snap-back provision. That is——

Mr. COLLINS. With a snap-back, right.

Senator DORGAN. That is the bilateral agreement we have with Japan. And we actually had feasts and celebrations for having done that about 12 years ago.

And so when people talk to me about boxes and our capability in trade, all I have to do is look at Japan or China or Canada or Mexico and pick out any one of about two-dozen egregious provisions that are injuring our producers, that no one is doing anything about. You mentioned stuffed molasses as one example. No one is lifting a finger to do anything about that.

So we should have a longer discussion about it. I will not prolong the trade issue today. There are other venues to do that.

Thanks for being here. You run a large organization with a lot of very complicated programs. In your testimony you talked about the quality loss adjustment and gave some time frames of May for that. I appreciate that. Thank you very much.

Mr. SHIPMAN. Thank you, Senator.

FSA STAFFING

Senator COCHRAN. Thank you very much, Senator.

Mr. Shipman, I know that earlier this week or last week, you had a chance to speak to Farm Service Agency employees who were here in Washington.

I met with some from our State as well, and they were talking particularly about the problem of temporary staff having to be brought in to handle the increased workload for the signups and the disaster programs that we had authorized and funded.

Is there any plan or is reflected in this budget the need to improve the field office structure and the permanent staffing in the Farm Service Agency offices to deal with the expected workloads of the future?

Mr. SHIPMAN. Senator, there was a large office consolidation effort that occurred early in the last Administration. I think we need to reevaluate all opportunities for us to utilize technology enhancements that are available now that might not have even been available 5, 6, 7, 8 years ago, and to see if there are opportunities for us to gain additional savings that could be re-channeled into staffing needs and other things.

With respect to the current budget request, I might ask Mr. Kaplan or Jim Little to speak to that, as well.

Senator COCHRAN. Mr. Kaplan.

Mr. KAPLAN. As far as permanent staffing is concerned for the Farm Service Agency, it is the same in 2002 as we plan to have in 2001. Temporary staffing does go down from 2,461 to 2,000 staff years.

We expect less of a disaster program or we do not want to assume a disaster program, and the requested staffing should meet the needs of the FSA, is what we are told.

Senator COCHRAN. If there is an additional program, a benefit program approved by Congress this year to farmers, will we have to take another look at that, in terms of the reduction in temporary staff?

Could they actually handle another disaster program without having any temporary or additional permanent employees in these offices?

Mr. SHIPMAN. Senator, I think that would be dependent upon what commodity prices are at the time and what the staffing needs to process marketing loan and loan deficiency payment applications are at that time as well.

As you may recall, in the last 2 years, as Congress has provided emergency disaster assistance to the Department to deliver to farmers, it has provided with it supplemental appropriations or authorities to utilize a percentage of the funding for delivery expenses.

And so that may very well be necessary depending on what the current conditions are if Congress approves a program.

Senator COCHRAN. Thank you.

Mr. Collins, we talked about the outlook for the farm economy, and you gave us some good news and then some not-so-good news in your assessment of the situation.

Comparing the outlook for this crop year with what we observed last year and the year before, can you predict whether farmers will be just as in need of additional assistance for market loss or other benefit program assistance as they were for the past 2 years?

Mr. COLLINS. The only way I can really do that is by looking at projected net income and if you look at it just for the principal program crops, let us say wheat, rice, the four feed grains, cotton and add soybeans to that, then it would look like for the 2001 and 2002 crop year that net income will fall in the range of $6 billion below what it was the last couple of years.

Just coincidentally that happens to be close to the kinds of numbers people are talking about for financial assistance—maybe it is not coincidental—for the 2001 and 2002 crop year.

Net returns from the market the last 2 years have been very weak. They are going to get a little bit better in the 2001 and 2002 crop year. But then we are going to have the problem of higher production costs. And so when I am giving you a figure, I am talking about net income.

Production costs were fairly stable in the mid-1990s then they shot up last year and they are going to shoot up again this year. And so even though the market is getting a little better, it will put net income from the marketplace about where it was a year ago.

Senator COCHRAN. Is the increase in costs mainly attributable to increased energy costs?

Mr. COLLINS. Energy costs are the single biggest factor. We also have higher labor costs, as well. But energy is the single biggest increase.

Senator COCHRAN. Senator Johnson, I think, asked you about the renewable energy resources and you talked about ethanol.

Mr. COLLINS. Right.

Senator COCHRAN. And are there any other programs like that or any activities like that in agriculture to produce energy resources on the farm that would help reduce the costs? Are any of these technologies up to the point now where they actually will have the prospect of reducing energy costs in the future?

Mr. COLLINS. Not really reducing energy costs. Agriculture's contribution to the total energy picture in the nation is pretty small.

Of the total energy used in the United States, renewable energy only accounts for about 3 or 4 percent. Of the total gasoline burned in the United States, ethanol only accounts for 1.2 percent. Of the total diesel burned in the United States, biodiesel accounts for basically zero.

So agriculture is not going to bring down the prices of energy in the United States over the next few years. Over the long term, agriculture can do some things. Agriculture can make a greater contribution to electricity production for example.

The CRP program this year has a biomass pilot project, where up to 250,000 acres could be used to produce energy, and all of that is being used to produce electricity. So there are some electricity gains that could be made. But that is going to take years. There are some biodiesel gains that could be made. That is going to take years.

The real big gain is ethanol right now, which accounts for 600 million bushels of corn, and that makes a material difference in the LDP's that we are paying out. That does make a difference in the cost of the corn program.

But there really not much else like ethanol. There is increasing production of what people call bio-products or bio-chemicals is resins, coatings, lubricants, plastics, these kinds of things, which are made from agricultural materials.

And that is helping the industrial demand, again, primarily for corn. But over time we need new technologies that can help convert the other types of agricultural materials into these products as well.

FARM LOAN REPAYMENT

Senator COCHRAN. In looking at the needs of farmers in the credit area, I was interested in an assessment of the payment of loans and the fact that the repayment rate has been better than in years past. That is encouraging.

Is it because farmers are not borrowing or using the credit programs that are authorized to be administered by USDA? How do you account for those significant improvements?

Mr. SHIPMAN. Senator, I am not sure that I can answer your question specifically. I think it is a combination of things, and I will ask Jim Little if he can speak more specifically to that.

In its continued depressed condition the farm economy may be driving what would normally be commercial bank borrowers to the government. And so we may be displacing higher risk borrowers, if you will, with lower risk ones.

And I think also it is a factor of the changes in the program that Congress has authorized and the restrictions that have been placed on borrowing through the last farm bill. Those dividends are beginning to pay.

Jim, do you have——

Senator COCHRAN. Mr. Little, come up to the table and give us your reaction to that.

Mr. LITTLE. Thank you, Mr. Chairman. I think some of it might have to do with the Debt Collection Improvement Act of 1996. We have done a little bit better—a lot better job in administering the programs, as well as making an effort to work with the borrowers in getting their repayments. The Debt Collection Improvement Act authorizes an offset program with the Department of Treasury, so we have a lot better collection tools.

Also, the States have better information that we provide to them, and they are working with the borrowers one on one in attempting to get them to repay, as well as making compromises, along with the debt offset program. I believe these factors have a lot to do with the reduction in the delinquency rate.

Senator COCHRAN. Do you know how much is on hand for Farm Service Agency loans and loan guarantees as compared to the levels we appropriated for fiscal year 2001?

Mr. LITTLE. I do not have that amount at the tip of my fingers.

Senator COCHRAN. Well, you can submit that for the record. And we would like to know if you expect that any supplemental funding might be needed for any of these programs during the current fiscal year?

Mr. LITTLE. Yes, sir. We will provide that for the record.

[The information follows:]

FARM SERVICE AGENCY

[Status of Farm Loan Programs as of April 30, 2001]

Program	Funding (in millions of dollars)			Number of loans made
	Supportable [1]	Obligated	Available	
Direct:				
Farm Operating	$700	$490.5	$209.5	9,918
Farm Ownership	156	128.5	27.5	1,159
Emergency	298.5	59.6	238.9	1,155
Indian Land Acquisition	2	0.1	1.9	1
Boll Weevil Eradication	100	10	90	1
Seed Loans	35	27.1	7.9	581
Apple Loans	99.6	6.2	93.4	221
Guaranteed:				
Operating, Unsubsidized	1,187.1	659.6	527.5	4,075
Operating, with Interest Assistance	473.3	383.9	89.4	2,185
Ownership, Unsubsidized	1,009.5	443.9	565.6	1,822

[1] Supportable includes fiscal year 2001 appropriations and fiscal year 2000 carryover unobligated balances.

The Farm Service Agency does not plan to request any supplemental funding for the farm loan programs for fiscal year 2001.

Senator COCHRAN. Okay. Let me ask a question on another subject, foreign trade. We talked about the expansion of trade and ne-

gotiating new agreements, trying to help make sure we get a share of emerging markets for farmers in America.

Is there a realistic expectation that these increased market opportunities will help increase prices of U.S. farm products, the money that farmers are actually making? What is your assessment of that, Mr. Collins?

Mr. COLLINS. I think that is our goal. I think——

Senator COCHRAN. Yes. But farmers tell me sometimes, they say, "It is great to have these new markets expanded, but I am not seeing it reflected in the prices that we are getting from our commodities."

Mr. COLLINS. I can appreciate that. We certainly had the Uruguay Round adopted with great fanfare, and farmers asked me, you know, "Where are the benefits of it? I have watched my exports go from $60 billion down to $50 billion over the last few years."

And the answer is complicated. There are a lot of things that have happened in the world, particularly the economic problems in Asia and Latin America and Russia and the exchange rate, and large crops around the world and that sort of thing. But if you look at American agriculture, the only best hope we really have is to expand market demand.

We are going to have tremendous productivity gains in the future. We have always had tremendous productivity gains.

We have the GMO revolution before us. And I think what we have to do is work on reducing production costs and work on expanding demand. And expanding demand will be through, I hope, non-food products, but also we can look around the world and we can see—as everyone says, 94 percent of the world's population is outside of the United States.

We have strong growth, income prospects in Latin America, North Africa in the Middle East, and Asia. And those are going to be prime growth markets in years to come. And a lot of that growth is going to be not necessarily in corn or wheat or rice. It is going to be in value-added and high-value products.

And, of course, that can benefit bulk products. You know, the more meat we export, the more soybean meal is going out as meat. Corn is going out as meat. Barley is going out as meat. Sorghum is going out as meat. So it can help the bulk products as well.

But over the next couple of years I see a slow recovery in exports. In fact, I would guess that we would not hit our $60 billion figure that we hit in 1996—I think we would not hit that until like 2003 or 2004.

But the point is: You have to keep building this demand base, and that is what our export programs are trying to do. At some point, we are going to get the engine of the world economy firing in all eight cylinders and then, hopefully, we will see the kind of growth in exports that we saw through much of the 1990s pick up again. But I cannot tell you exactly when that is going to occur.

EMERGENCY DISASTER ASSISTANCE PAYMENTS

Senator COCHRAN. With respect to the disaster emergency assistance program this year, it is encouraging that now in place are signup notices, and there are clear signs that progress is being made in getting the regulations out. It is really amazing to me that

so much work by the new Administration has been done so quickly to get us to this point.

Will there be a time that you can expect when all payments will actually be made to those who are eligible? Can you look ahead and predict when that date will be?

Mr. SHIPMAN. Senator, when Secretary Veneman first came into office, I set a goal in my own mind that we would try and be done with the crop disaster program, the crop quantity loss, if you will, within 60 days.

And I think we met it or came very close to that. And taking into account the complexity of the crop quality loss program, I have been hoping that at least within 60 days of completion of the quantity loss, we would be done with the quality loss. And I think we are on track to meet that.

As far as when the final payments will be done, that depends largely on how long a signup we have. But it is important to remember in both of these programs and in all of those that Congress did not place specific dollar limitations on, once a producer completes his application, and we process it, we can issue a check almost immediately.

Now, there are programs such as the Tri-Valley Cooperative Program and others which are dollar limited. The oilseeds program is another example, where it was limited to $500 million. In those cases we have to allow the signup to complete, the county offices to transmit that data back to Washington, and us to apply a proration factor.

But in the specific examples of crop quantity and quality losses, once those producers submit their applications and we process them, we should be able to issue a check; maybe not immediately, but certainly we can do so before the signup is complete.

Senator COCHRAN. I congratulate you on the leadership you are providing and the success that you have had in meeting those target dates.

A couple of questions that I had planned to ask about biotechnology and trade and the effect have already been asked and answered by other Senators.

I am glad that we are apparently getting a better handle on this, and the people around the country and around the world are understanding that biotechnology is not a bad word necessarily. It has provided a lot of efficiencies and safer supplies of food in more instances than not.

One of our food aid programs is Public Law 480 and the Title I program particularly. And I notice in the budget there is something called a "Blueprint for New Beginnings," and the Administration proposes to undertake a review of Public Law 480 Title I to evaluate its continued effectiveness in meeting market development objectives.

Do you know how long this evaluation will take and what it involves, and what market development objectives may be used to evaluate the effectiveness of the program?

Mr. SHIPMAN. Senator, this is a top-to-bottom review, as I would describe, to borrow from the Pentagon's evaluation of some of its operations, a top-to-bottom review of our food aid programs within

the Department that was, agreed to as you mentioned, a part of the President's budget blueprint.

We will be cooperating with the Office of Management and Budget to do that. And it will encompass all aspects of what our food aid program objectives are and how we administer that program.

We look forward to participating in that and to completing it expeditiously. But to my knowledge that process has not yet begun. And so it would be difficult for me to provide you with an expected target date.

Senator COCHRAN. My last question has to do with crop insurance, one of, I am sure, your favorite subjects.

The Agricultural Risk Protection Act, when it was passed by Congress and signed by President Clinton in June of 2000, has resulted in the Farm Service Agency and the Risk Management Agency reconciling data that will be used to combat fraud and abuse.

Can you provide the members of the subcommittee with a report on the data reconciliation process and when the process might be complete?

Mr. SHIPMAN. Senator, let me first ask that you let us submit a more detailed answer for the record. But in general terms, the Risk Management Agency entered into contracts with Tarleton University and one other vendor, as I recall, to participate in some data mining activities in evaluating the information that we have, and in trying to come up with methods by which we can compare Farm Service Agency data with Risk Management Agency data and to have analogies that can occur which will show us where there are potentials for fraud and abuse and other things.

That is an ongoing process that we are hopeful will yield—along with the cooperative role or arrangement between RMA and FSA at the county office level—a better compliance system that will get rid of some of the perceived problems with the crop insurance program in general. We are hopeful that we can utilize this technology in order to do that.

[The information follows:]

The Risk Management Agency (RMA) and Farm Service Agency (FSA) are working onn procedures for data reconciliation, which will be Part 4 of the RMA/FSA 4–RM Handbook. This handbook details procedures for the implementation of the Agricultural Risk Protection Act of 2000 (AR–PA). The reconciliation will initially include four basic fields: producer identification, acreage, share, and production. The reconciliation of RMA and FSA data will zero in on 19 FSA program (loan deficiency payment) crops. The procedures should be finalized by June 30, 2001, and will then be included in the Handbook. The reconciliation should begin by August 31, 2001, for crop year 2001 and will include three of the four basic fields, excluding production. Changes to other similar RMA/FSA data will be made in fiscal year 2002. RMA and FSA will continue to maintain their respective data bases.

Senator COCHRAN. I am hopeful that we can see a crop insurance program in place that will make it less likely that annual emergency bills will be necessary. That would be one of the results of a workable, affordable crop insurance program that works like farmers expect it to.

But we do have to make sure that those who are abusing the program or who are engaging in fraudulent practices are not successful in continuing that. And there has to be a budget impact on all that, as well.

Well, I appreciate very much the witnesses' cooperation with our Committee today at this hearing to examine the state of our farm economy and the budget request as it relates to farmers and the assistance programs that are funded in the budget to help make it more likely that farmers can operate profitably, and we can strengthen our farm economy.

This concludes today's hearing. We appreciate very much, as I said, the cooperation of the chief economist and our new deputy undersecretary, Mr. Shipman.

ADDITIONAL SUBMITTED QUESTIONS

Additional questions may be submitted in writing by the Committee members, and we hope you will be able to answer them within a reasonable time.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO THE FARM SERVICE AGENCY

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

PRODUCTION FLEXIBILITY CONTRACT PAYMENTS

Question. Given that the scheduled annual reduction in Production Flexibility Contract (PFC) payments under the 1996 Farm Bill and lower loan deficiency payments are to reduce government payments by $2.5 to $3 billion in 2001, is a second PFC payment needed to help farmers at least break even this year?

Answer. Farmers may need additional government payments depending on final plantings, harvested yields per acre, and market prices. According to the fiscal year 2002 President's Budget estimates, PFC payments and marketing loan benefits (loan deficiency payments and marketing loan gains) are expected to decline from $12.2 billion for the 2000 crop year to $9.7 billion for the 2001 crop year, a decrease of $2.5 billion. However, under the baseline projections, market revenues for the wheat, feed grains, upland cotton, rice, and oilseeds are expected to increase about $1.2 billion for the 2001 crop compared with the 2000 crop, partially offsetting the decline in government payments.

Commitment at this time to a specific type and level of additional assistance is premature, particularly since spring planting is not complete. World weather patterns are still a major influencing factor that will affect the outcome of plantings, harvested yields, and market prices.

EFFECTS OF ENERGY COSTS

Question. How have increases in petroleum and natural gas prices affected specifically the poultry industry, a major industry in my State?

Answer. Last winter saw dramatic increases in the cost of heating poultry houses. Many producers saw their costs more than double, resulting in negative returns. While some integrators modified their heating allowances, these increases fell far short of meeting the increased costs. With the heating season now over, higher petroleum and natural gas prices are not expected to have a significant direct impact on poultry producers, and with rising prices for poultry products, grower returns are expected to return to profitable levels.

Question. What other agricultural sectors have been hit extremely hard by the increased energy and fuel costs?

Answer. In general, the farm economy appears to be responding efficiently and in a normal market-oriented way to increased energy prices. Most farmers are facing higher costs of production and reduced incomes due to higher energy prices. Production costs are also up for food processing and distribution, but very little effect is expected on retail food prices or the supply of food.

The Department's current forecast of U.S. farm income for 2001 placed farm expenditures on fuels and oils, electricity, fertilizer and pesticides at $30.9 billion, up $700 million from 2000. Developments since the forecast was made indicate that

farm spending on farm energy inputs may actually increase by $2 to 3 billion, further eroding farm income.

Sectors of the farm economy that are experiencing or are expected to experience disproportionate adverse impacts from higher energy prices are those that are relatively energy intensive—irrigated crops in the West that have high pumping costs, corn production due to both high fertilizer inputs and the need for grain drying, cotton ginners due to drying, and horticultural producers who have very little flexibility in adjusting to higher energy prices.

Question. How will these increased energy and fuel costs affect irrigated crops, especially in the Southeast?

Answer. Southeastern irrigated agriculture should experience less of an impact than western areas due to both the lower amount of water used per acre and the higher per acre value of the crops irrigated. While increases in energy prices are expected to decrease growers' returns, total acres irrigated in the southeast are expected to remain relatively unchanged. The most recent agriculture census indicated that in 1998 about 2 to 3 percent of total irrigated acres suffered diminished yields resulting from interruptions due to high energy costs. Given the recent increases in energy prices, yield impacts are expected to increase. Farmers are expected to respond to the higher energy prices by reducing the volume of water used and switching to crops requiring less water.

FARM INCOME

Question. I am very concerned with the agriculture credit situation that our farmers are currently facing. Low market prices have placed our producers in a state that makes their individual cash flow more important than ever. What suggestions do you have to assure credit availability in the near future?

Answer. Ample credit is available through commercial lending sources for family farmers, contingent upon their ability to conduct a profitable farming operation. Unfortunately, low commodity prices and weather problems have made it difficult for some family farmers to finance their farming operations. This situation has created strong demand for FSA credit assistance. In fiscal years 1999 and 2000, FSA provided loans and loan guarantees totaling $7.5 billion to 71,000 family farmers . Beginning farmers use FSA direct loan programs to establish family farms, while established farmers use FSA guaranteed loans to sustain their existing farm businesses.

Full funding of the direct and guaranteed loan programs will allow family farmers, who are unable to obtain credit from a commercial source, an opportunity to secure financing until an improvement in economic conditions returns.

Question. With the farm economy in the state that it is, what is happening in the land market?

Answer. Farmland prices depend both on landowners' and land buyers' expectations about profits that agriculture may provide in the future, and, particularly in the Northeast and West, on the demand for rural land for development and recreation. The value of farm real estate rose in 2000 and USDA forecasts that it will be steady in 2001, indicating that farmland owners anticipate that either Government programs or the marketplace will provide them with adequate returns on their land and other assets.

Farm Real Estate Values in the 1990's

[In billions of dollars]

Year	*Real Estate Value*
1990	619.1
1991	624.8
1992	640.8
1993	677.6
1994	704.1
1995	740.5
1996	769.5
1997	808.2
1998	841.8
1999	870.0
2000	874.4
2001 (forecast)	883.1

Of course, national statistics mask the diverse conditions facing producers across the country. The latest available USDA statistics show that per acre land prices de-

clined slightly in 1999 in three Corn Belt States. Corresponding statistics for 2000 will be available in July 2001.

FARM REAL ESTATE—AVERAGE VALUE PER ACRE, BY REGION AND STATE

[January 1, 1996–2000]

State	1996	1997	1998	1999	2000	Change 1999–2000 (Percent)
Northeast:	$2,220	$2,240	$2,280	$2,370	$2,470	4.2
CT	5,950	5,950	5,950	6,300	6,600	4.8
DE	2,550	2,580	2,660	2,750	2,850	3.6
ME	1,150	1,170	1,190	1,200	1,210	0.8
MD	3,110	3,150	3,180	3,300	3,500	6.1
MA	5,100	5,150	5,210	5,500	5,900	7.3
NH	2,250	2,250	2,250	2,250	2,300	2.2
NJ	7,100	7,100	7,000	7,000	7,100	1.4
NY	1,260	1,250	1,280	1,340	1,410	5.2
PA	2,270	2,300	2,390	2,500	2,620	4.8
RI	6,500	6,500	6,500	6,500	6,500	0.0
VT	1,490	1,500	1,520	1,570	1,640	4.5
Lake States:	1,130	1,200	1,280	1,390	1,490	7.2
MI	1,420	1,530	1,670	1,850	2,100	13.5
MN	1,030	1,090	1,160	1,230	1,270	3.3
WI	1,130	1,170	1,240	1,370	1,500	9.5
Corn Belt:	1,510	1,610	1,730	1,830	1,840	0.5
IL	1,900	1,980	2,130	2,250	2,220	−1.3
IN	1,740	1,870	2,060	2,220	2,210	−0.5
IA	1,450	1,600	1,700	1,770	1,750	−1.1
MO	950	1,010	1,070	1,130	1,190	5.3
OH	1,820	1,890	2,040	2,220	2,250	1.4
Northern Plains:	463	481	499	510	526	3.1
KS	553	565	577	580	590	1.7
NE	610	620	645	670	695	3.7
ND	383	390	401	406	415	2.2
SD	310	325	348	360	380	5.6
Appalachian:	1,550	1,630	1,720	1,840	1,940	5.4
KY	1,300	1,350	1,450	1,530	1,590	3.9
NC	1,900	2,000	2,080	2,250	2,400	6.7
TN	1,530	1,650	1,810	1,950	2,100	7.7
VA	1,840	1,880	1,920	2,040	2,130	4.4
WV	980	1,050	1,090	1,070	1,060	−0.9
Southeast:	1,580	1,630	1,700	1,770	1,920	8.5
AL	1,320	1,360	1,440	1,520	1,680	10.5
FL	2,150	2,200	2,240	2,260	2,400	6.2
GA	1,360	1,430	1,510	1,630	1,800	10.4
SC	1,360	1,400	1,480	1,520	1,600	5.3
Delta States:	1,020	1,070	1,130	1,180	1,230	4.2
AR	1,010	1,070	1,150	1,220	1,250	2.5
LA	1,180	1,190	1,210	1,210	1,250	3.3
MS	917	980	1,050	1,100	1,180	7.3
Southern Plains:	541	557	596	613	631	2.9
OK	547	570	610	625	634	1.4
TX	540	554	593	610	630	3.3
Mountain:	383	399	415	426	440	3.3
AZ [1]	880	920	987	1,070	1,140	6.5
CO	558	590	618	630	640	1.6
ID	900	960	1,020	1,090	1,170	7.3
MT	289	291	294	296	300	1.4
NV [1]	332	366	392	420	440	4.8
NM [1]	212	215	217	217	215	−0.9
UT [1]	740	780	807	855	900	5.3
WY	206	215	222	220	235	6.8
Pacific:	1,670	1,730	1,780	1,870	1,890	1.1
CA	2,400	2,500	2,610	2,770	2,850	2.9
OR	928	960	960	1,000	1,020	2.0
WA	1,120	1,160	1,190	1,190	1,150	−3.4

FARM REAL ESTATE—AVERAGE VALUE PER ACRE, BY REGION AND STATE—Continued

[January 1, 1996–2000]

State	1996	1997	1998	1999	2000	Change 1999–2000 (Percent)
Total, 48 States	887	926	974	1,020	1,050	2.9

[1] Excludes Native American Reservation Land.

Federal Reserve Bank analyses also provide information on recent regional land value trends. The following are excerpts from their latest available reports:

Kansas City District.—In this district, which covers Kansas, Missouri, Nebraska, Oklahoma, Colorado, New Mexico and Wyoming, farmland values climbed in the fourth quarter of 2000, finishing their strongest year since 1997. In 2000, district cropland values rose nearly 4 percent while district ranchland values surged nearly 7 percent. All district States posted strong gains in farmland values during 2000 with Kansas and the Mountain States leading the way. Many district bankers noted that recent gains in farmland values came in response to non-farm demand factors and hefty government payments rather than good times in the industry.

Minneapolis District.—In this district, which covers Montana, North Dakota, South Dakota, Minnesota, northwestern Wisconsin, and the Upper Peninsula of Michigan, cropland prices increased over last winter's prices from an average of 5 percent in Minnesota to 15 percent in western Wisconsin. In addition, pasture land price increases ranged from an average of 5 percent in Minnesota to 11 percent in South Dakota over those of a year ago.

Chicago District.—In this district, which covers Illinois, Indiana, Iowa, Michigan (except for the Upper Peninsula), and Wisconsin (except for the northwestern portion), percent changes in the dollar value of "good farmland" from January 1, 2000, to January 1, 2001, were: Illinois, +4; Indiana, +7; Iowa, +7; Michigan, +3; and Wisconsin, +8.

Question. Are farmland prices declining and reducing the equity position of farmers?

Answer. Farm real estate values increased throughout the 1990's and 2000, and USDA forecasts they will be stable in 2001. Farm land accounts for about 78 percent of the value of farm assets. Thus, stable or increasing land prices are crucial in maintaining farmers' equity positions, also commonly called net worth. A major downturn in landowners' expectations about the ability of agriculture to produce profits—whether due to market conditions, input costs, or changes in Government programs—could bring about large declines in farm real estate values, significantly eroding the equity position of farmers.

Question. Is this declining equity position making it difficult for farmers to borrow money to meet operating expenses?

Answer. Farmers' equity, or net worth, increased each year in the 1990's and in 2000. USDA forecasts a further 1-percent increase in 2001. Firm real estate values will help provide farmers with the collateral needed to qualify for loans.

Farm Equity in the 1990's

[In billions of dollars]

Year	*Farm Equity*
1990	702.6
1991	705.0
1992	729.3
1993	768.2
1994	789.3
1995	816.8
1996	848.7
1997	887.7
1998	912.7
1999	940.2
2000	941.6
2001 (forecast)	951.0

COMMODITY LOAN RATES

Question. Agriculture commodity organizations have testified that the current commodity loan rates are not equal. If loan rates are raised and become equal, how do you believe the commodity market would respond?

Answer. Nearly all of the farm and commodity groups have called for some changes to marketing assistance loan rates as established under the Federal Agriculture Improvement and Reform Act of 1996 (FAIR Act). With the exception of the American Soybean Association (ASA), these calls for loan rate realignment have been based on concerns that the current soybean loan rate, relative to the loan rates for other commodities, distorts farmer planting decisions in favor of soybeans. The $5.26-per-bushel soybean loan rate is substantially higher than the average per-bushel variable cash expenses incurred producing a bushel of soybeans. Adjusting per-acre variable cash expenses to a per-bushel basis using a moving 5-year average for yield, the soybean loan rate exceeds per-bushel variable cash expenses by 160 percent. The corn and wheat loan rates exceed variable cash expenses by 60 and 80 percent, respectively.

Soybean acreage has expanded substantially since the mid-1990's. Between 1996 and 2001 (based on 2001 producer planting intentions reported in the March 2001 Prospective Plantings), soybean acreage has increased from 64.2 million acres to 76.7 million acres, an increase of 12.5 million acres, or 19 percent. During this same period, corn acreage fell by 2.5 million acres, or 3 percent, and wheat acreage fell by 14.8 million acres, or 20 percent. As ASA has argued in its recent testimony before the House Agriculture Committee, not all of this increase in soybean acreage and decrease in corn and wheat acreage has been the result of the $5.26-per-bushel soybean loan rate.

Soybean acreage increased substantially during the early 1990's, growing from 57.8 million acres in 1990 to 64.2 million acres in 1996, an increase of 6.4 million acres, or 11 percent. Nearly all of the increase in soybean acreage in 1996, 1997, and 1998 resulted from planting flexibility offered under the FAIR Act, which eliminated planting restrictions and planting requirements to protect program crop acreage bases. Soybean acreage in these years also expanded as the result of new varieties better adapted to the western and northern growing areas and the advent of biotech crops like Roundup Ready soybeans.

Realigning loan rates so that they do not favor the planting of soybeans would likely cause some acreage to shift from soybeans to other commodities. Thus, assuming no other supply and demand changes, soybean market prices would increase while market prices would decrease for the commodities for which plantings increase.

CONSERVATION RESERVE PROGRAM ACREAGE

Question. Most economists seem to believe that the depressed commodity prices are directly related to excess supply of each product. With this in mind, would it be beneficial to increase acreage limitation within the current Conservation Reserve Program?

Answer. There are really two questions or issues: (1) What impact would increasing CRP enrollment have on commodity prices, and (2) What would be the consequences of higher commodity prices? The answer to the first question hinges on the response both domestically and internationally. Expansion of CRP would be expected to reduce domestic supply and thereby increase commodity prices and increase U.S. farm income, especially when increases in aggregate CRP rental payments are included. The extent of the commodity supply and price impacts largely depend on the actual net change in planted acreage of each commodity that occurs as a result of the change in CRP enrollment. Typically plantings decline, but not by an amount equal to the increased CRP acreage. This mitigates the commodity supply and price effects, which is compounded if increases in international production occur.

An earlier analysis of the price impacts of expanding the CRP gives an indication of the magnitude of crop price changes that could be attributable to a future expansion of the program. As an example, the analysis suggested that increasing the program to 45 million acres could result in wheat, corn, and soybean price increases of 15 cents, 2 cents, and 25 cents per bushel, respectively, compared with a 36.4-million-acre-program. Price impacts would amount to about half of these levels for a 40-million-acre program.

The second issue relates to the consequences on the farm sector and society of lower commodity supplies and higher commodity prices. While crop income is generally expected to increase and landowners would benefit, net incomes of livestock producers may decline. Consumers lose whenever supplies decline and prices in-

crease. Again, past economic studies have concluded that the CRP at current levels has resulted in net economic benefits to domestic and foreign producers and consumers, but only when estimates of the environmental benefits are included. Based on these studies, enlarging the program above the current 36.4-million-acre limit may result in net benefits for society.

CROP LOSS ASSISTANCE

Question. It is my understanding that a producer is eligible for payment under the Crop Quality Loss Program as long as 20 percent of the affected area experiences quality loss. Is my assumption correct?

Answer. No, it is not. Producers will be eligible for a Quality Loss Program (QLP) payment if they provide written documentation substantiating that the harvested production of a crop produced in the 2000 crop year suffered a minimum of a 20 percent reduction in quality due to an eligible cause of loss. Affected production may be calculated using the smallest measurable unit for which acceptable records exist, such as bale, truck load, bin or bunk. County "average" quality loss percentages are not applicable to QLP.

Question. Additionally, will a producer be able to choose to collect the quality loss payment or the crop loss disaster payment?

Answer. Producers can receive both a CDP payment and a QLP payment. However, payment cannot be received for the same loss under both CDP and QLP. If a portion of the CDP payment includes a quality adjustment, the calculated QLP payment will be reduced by the portion of the CDP payment attributed to quality losses.

STARLINK BUY-BACK/BIOENGINEERED FOODS

Question. USDA has recently announced a purchase program for seed containing the protein (Cry9C) found in StarLink corn. Out of 300 contracts sent out to the seed companies by USDA, 78 seed companies reported contaminated seed and signed up to participate in the buy-back program. Do you have any concern that the remaining 148 companies not participating in the program may be selling contaminated seed?

Answer. No, companies involved have recovered and taken control of all lots of hybrid seed corn found to have the Cry9C protein. Seed companies routinely test their products for impurities and many took steps to detect Cry9C before USDA recommended testing procedures on December 29, 2000. Additionally, CCC has directly contacted all seed companies to stress the importance of testing and advised them not to sell any seed corn that tests positive for the Cry9C protein. Press releases have also been issued advising farmers to not plant any seed corn this year that has not been tested or verified to be negative for the protein. Farmers have been advised to return any positive or untested seed to their dealer for a full refund.

Question. The Washington Post has reported that StarLink was found in new categories of corn products such as corn bread, polenta, and hush puppies in tests conducted by the company, Aventis, that developed the corn. In your opinion, will this trigger more food recalls and cause more countries that are opposed to genetically-engineered food to avoid U.S. food products?

Answer. The new information provided by Aventis appears to support the Environmental Protection Agency's (EPA's) assessment that the wet-milling process effectively eliminates StarLink from finished products. The reports did indicate that the dry-milling process denatures but does not totally eliminate pure 100 percent StarLink in finished food products. However, StarLink is no longer approved for production, and therefore, the 100 percent pure StarLink will not be grown this year. EPA, the U.S. Food and Drug Administration, and USDA are continuing to coordinate an aggressive Federal effort, in cooperation with growers, millers, the food industry and Aventis, to divert StarLink corn away from the human food supply.

Through the Cry9C Protein Seed Corn Purchase Program (Program), USDA is removing the Cry9C protein from the food chain and destroying it before it has an opportunity to spread further. Under this program, USDA is purchasing for destruction, seed corn that contains any Cry9C protein. Current estimates are that the testing procedures detect concentrations of less than 1 percent. Given this low detection threshold and the destruction of known seed containing the protein, it is highly unlikely that the Cry9C protein will show up on any tests on this year's corn crop. USDA has been very successful in working with growers and seed companies to ensure that seed intended for the 2001 growing season is tested for the presence of Cry9C (StarLink) and is not planted if found to contain Cry9C. Therefore, we believe there should be no additional food recalls or foreign concerns for the 2001 U.S. corn crop.

QUESTIONS SUBMITTED BY SENATOR ARLEN SPECTER

LDP PROGRAM REPAYMENTS IN PENNSYLVANIA

Question. I contacted Secretary Glickman last year and Secretary Veneman in February of this year to request assistance in resolving an unacceptable situation in Erie County, Pennsylvania. Specifically, due to erroneous actions taken by the Farm Service Agency Office in Waterford, Pennsylvania, hundreds of Erie County farmers were told to repay loan deficiency payments they had received for 1998 and 1999 crop years. These farmers report they would have been entitled to these payments had USDA employees correctly assisted them in filling out the applications. A recent article in a Northwestern PA publication indicates that USDA has chosen to reverse its earlier decision with regard to repayment, although only for those who have not made repayments. My office has not been informed of any such decision by the Department.

Is this report accurate?

Answer. No, this report is not correct; USDA has not reversed its decision.

Question. If so, how does the Administration justify holding farmers in Erie County to different standards with regard to this situation?

Answer. The standards are uniform for everyone.

QUESTIONS SUBMITTED BY SENATOR HERB KOHL

STATE MEDIATION GRANTS

Question. Please provide information regarding the number and type of problem resolutions that have been achieved though this program and include estimates on dollar amounts of loans that were prevented from being discharged through bankruptcy or other final resolutions that would have been counter to the interests of either party.

Answer. The USDA State mediation programs have helped resolve many areas of disputes, including farm loans, price support payments, wetland determinations, conservation compliance, and Conservation Reserve Program payment eligibility. The most difficult disputes to resolve involve farm loan programs, which represent 60 percent of mediation cases. Disputes involving the Conservation Reserve Program and production flexibility contracts represent the bulk of the other cases. Dispute issues involving rural housing loans, rural business loans, and crop insurance are considered appropriate for mediation by the USDA State mediation programs. The number of mediation clients increased from 4,140 in fiscal year 1999 to 4,673 in fiscal year 2000. The number of agreements or resolutions increased from 2,898 in fiscal year 1999 to 3,411 in 2000.

It is difficult to estimate the dollar amounts of loans that were prevented from being discharged through bankruptcy as a result of mediation. We do know that conflict is an expensive business. To the extent that regulations and procedures provide opportunities for voluntary resolution of disputes, financial benefits of mediation accrue not only to USDA but to other governmental institutions, businesses, and individuals, including farmers and ranchers. For example, State mediation cases usually cost between $400 to $800 a case depending on the complexity of the dispute and the number of participants involved. The average resolution rate is over 73 percent. The Nebraska Department of Agriculture reported that a significant amount of money is saved by parties using the Nebraska State Mediation Program since the attorney fees alone for a person in bankruptcy average between $3,500 and $7,500. Many of the savings are intangible such as restoring communications between farmers and lenders, helping producers improve their decision making abilities, and helping farmers better understand their options thereby making the ultimate solution more workable for them.

NEW MARKETS—BIOTECHNOLOGY

Question. It has been recently reported that scientists have discovered a gene in certain plants that can be modified that would increase the amount of oil the plant would produce, thereby, increasing its use for bio-energy. Does USDA support increased research and development in bio-energy and do you think that renewable energy derived from farm products can serve to replace conventional fossil fuels to any meaningful extent in terms both of decreasing our energy dependence on foreign sources and increasing farm income?

Answer. USDA does support increased research and development in bio-energy. In fiscal year 2001 the Agricultural Research Service will be investing $6.867 million in research on this issue, CSREES will be investing $6.594 million, the Forest

Service will be investing $1 million, and the Commodity Credit Corporation will be investing $150 million in incentive payments to develop increased production of biofuels. In addition, the Conservation Reserve Program (CRP) is conducting a demonstration project using grass and trees from six CRP locations to evaluate the feasibility of co-firing and firing electric power generation using biomass.

We do believe that renewable energy from farm products replaces a significant amount of conventional fossil fuels and decreases our dependence on foreign oil. We have conducted an analysis to determine the effect of replacing methyl tertiary butyl ether (MTBE) with ethanol. Results of that analysis indicated that the price of corn would rise by an annual average of 15 cents per bushel over the 2000 to 2010 period as a result of the increased demand for corn as a feedstock to produce ethanol. Over the same period, annual average net farm income would increase by about $1.2 billion. Replacing MTBE as an oxygenate in gasoline would result in annual demand for about 4.5 billion gallons of ethanol, about 2.5 times the 2001 annual consumption, which is expected to be about 1.8 billion gallons.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

FARM PROGRAM DELIVERY

Question. It's likely that the farm economy will not improve this year, and there is a good chance that there will be an effort advanced by Congress to provide more emergency help similar to what has taken place the past few years.

In a visit to a local Farm Service Agency office in a fairly large county in North Dakota, I asked about staff needs. A seasoned veteran of many years told me that the office had experienced a reduction in force of seven full-time employees from the peak years of employment in the 1980's, but that the workload that was being asked of them was larger than anything she had ever experienced since coming to work in the office.

Obviously, local County FSA office staff are stretched to the limit, and I am concerned about the personal stress that is being placed on these workers and their families.

Computerization has made up for some of this loss of staff, but not all. Local County Executive Directors tell me one additional full time employee would greatly reduce the burden for existing staff. This is because temporary staff cannot be charged with many of the tasks, simply because they are not there long enough to warrant the training required.

Would the Administration support an increase in staff for local offices, given the need that is quite apparent?

Answer. FSA county offices have successfully implemented more than 25 new disaster and economic assistance programs over the last several years. Much of this unanticipated workload was completed due to the appropriation of supplemental funding and the subsequent hiring of temporary staffing. The agency relies on the flexibility of temporary staffing in order to best meet the changing workload activity levels and locations associated with the disaster and economic assistance programs.

FSA acknowledges the tremendous workload impact that these increased activities have had on the permanent workforce. Through the placement of temporary staffing, FSA has tried to minimize the impact on employee morale and stress issues. To increase permanent staffing levels at this time, however, would impact budgetary resources, limit flexibility of remaining staffing distribution, and put the agency in the position of potential reductions-in-force when workload activities return to normal ongoing operations.

AG MEDIATION

Question. USDA is requesting $3 million for State agricultural mediation grants for fiscal year 2002—the same as last year. However, four new programs in California, Colorado, Mississippi and New York have pending certification applications. Since this is a growing program due to the continued depressed farm economy, it has been suggested that $4.5 to $5 million would be a more appropriate funding level.

Have any States been turned down for participation in this program due to a lack of funding?

Answer. No States have been turned down for participation in the USDA State mediation program. California is the 26th State to be certified by USDA. The certified States are:

Alabama; Arizona; Arkansas; California; Florida; Idaho; Illinois; Indiana; Iowa; Kansas; Maryland; Michigan; Minnesota; Missouri; Nebraska; Nevada; New Jersey;

New Mexico; North Dakota; Oklahoma; South Dakota; Texas; Utah; Washington; Wisconsin; Wyoming.

Colorado, Maine, Mississippi, New York and Tennessee State officials are interested in becoming certified pending availability of mediation grant funds.

These 26 certified States requested matching Federal grants totaling over $3.825 million. In fiscal year 2001, $3 million was appropriated, and each State's grant was prorated to approximately 78 percent of the request. This has resulted in States contributing more than their 30 percent share in order to maintain viable agricultural mediation programs.

QUALITY LOSS PROGRAM

I want to thank USDA for its commitment to start the signup for the quality loss program in May. The Farm Service Agency has struggled to get this complex legislation implemented, and I want to thank the Agency for all the hard work that has been put forth by everyone involved. I have never doubted that the Agency was not trying to get this program out to the farmers at the earliest possible date.

Having said that, I still want to impress on you the need to get the notice for this program published. We all know that there will be some lag time after publication to allow for county office staff training and to get the software finished and downloaded. I urge you to include in the publication examples of how the program will be implemented so that farmers and their bankers have some way to estimate the assistance that will be forthcoming to them.

Question. Once again, I thank you for committing to begin a signup for the Quality Loss Program in May. Obviously, there is still some work to do on the interpretation. Can you tell me if the "decision memo" has reached the Secretary's office for consideration yet?

Answer. All necessary decisions to begin signup have been made.

Question. Considering the late date of implementation and the fact that financial plans have been made with question marks with regards to the specifics of this program, will the notice include examples so that farmers and their bankers have some indication of what they can expect for assistance?

Answer. The notice will include examples and explain eligibility requirements for a QLP payment, including providing acceptable evidence of the quality loss.

FRUIT AND VEGETABLE VIOLATIONS RULE

The Fruit and Vegetable Rule contained in the 1996 farm bill was intended to keep farmers from switching program crop acres to fruit and vegetable production while pocketing AMTA payments. If a farmer planted a fruit or vegetable on a program acre, the fine was the value of the crop planted.

A number of farmers who grow dry beans in ND have inadvertently violated this rule due to farm reconstitutions, putting land into or out of CRP, etc. The fines range from $1,000 to $53,000. The farmer with the $53,000 fine has annual AMTA payments of $17,000 for his entire farm.

In ND, the fine for growing dry beans on program acres was calculated the following way: the county yield (1,000) × a set price ($.18) = $180/acre

A retroactive rule change was put in place in January:

—1st violation—a fine of 3 times the AMTA payment on the acres in question. (For ND, a $30 to $45/acre fine instead of $180)

—2nd violation—the fine reverts to the original rule.

The rule change was withdrawn for review in late January of this year.

Question. What is the status of the potential rule?

Answer. The Department is still considering whether to publish a final rule.

Question. Don't you agree that the penalty for the 1st violation under this change is a sufficient deterrent, and that leaving the original "drop dead" fine in place for the 2nd violation is a good compromise in that it alleviates ruinous fines to inadvertent violators while protecting the traditional fruit and vegetable growers?

Answer. There are varying opinions on this matter. During the comment period, some people advocated that no change in the rule should be made.

QUESTIONS SUBMITTED BY SENATOR TIM JOHNSON

BIOENERGY PROGRAM

Question. In South Dakota, the Bioenergy Program has already benefitted three ethanol companies and four specific plants. Broin Enterprises of Scotland, SD—my State's first ethanol plant, and Heartland Grain Fuels—with ethanol plants in

Huron and Aberdeen, SD—have both been approved for compensation under the Bioenergy Program.

Additionally, Dakota Ethanol, a new 40 million gallon farmer-owned ethanol plant based near Wentworth, SD, has tentatively been approved for compensation subject to the completion of the plant's construction yet this year.

Can you verify for certain if the Administration has included the authorized $150 million for the Bioenergy Program for fiscal year 2002 (in addition to the $150 million approved for fiscal year 2001)? Additionally, I believe the Bioenergy Program has merit and needs to be extended beyond 2002. Please tell me what the future holds for the Bioenergy Program in the USDA CCC budget.

Answer. Yes, the Administration has included the authorized $150 million for the Bioenergy Program for fiscal year 2002. It is shown in the CCC Commodity Estimates Book, fiscal year 2002 President's Budget, Presentation No. 0301, dated April 9, 2001.

FARM BILL EMERGENCY AID

I believe Congress can and should amend current farm policy immediately to provide a more predictable secure safety-net for farmers in 2001 and 2002—essentially modifying the farm bill now instead of waiting until it expires. It is time for a new farm bill that provides a meaningful income safety net, is reasonable in cost to the American taxpayers, yet assures some level of economic security for our nation's family farmers and ranchers.

Question. When can we expect USDA to offer any suggestions for re-writing the farm bill?

Answer. The Administration plans to begin a process this month to develop policy proposals that will be included in a new farm bill. This process is expected to be completed by the end of the summer.

STATE AG MEDIATION GRANTS PROGRAM FUNDING

Question. The President's budget requests $3 million for State Mediation Grants for fiscal year 2002, although it has been suggested that $4.5 to $5 million is needed to adequately fund this program.

Can you provide a list of the States which have requested to participate in this program but have been turned down for lack of funding?

Answer. No States with qualified programs have been turned down for participation in the State Mediation Grants program. This fiscal year 26 State programs requested matching Federal grants totaling $3.825 million. With an appropriation of $3 million, each State received approximately 78 percent of its request. Several States including Colorado, Maine, Mississippi, New York and Tennessee are interested in becoming certified pending availability of mediation grant funds.

Question. Please provide information relating to any problems identified by currently participating States associated with low funding levels.

Answer. Participating States are unable to engage in some of the activities authorized under the program. The Grain Standards and Warehouse Improvement Act of 2000, which reauthorizes the State Mediation Grants program through 2005, also authorizes the use of matching grant funds for financial advisory and counseling services. At the pro rated level, States are not able to assume this additional responsibility. States also are unable to address the full range of issues that the law makes subject to mediation.

In addition, officials in five more States are interested in becoming certified pending availability of mediation grant funds. The Federal share is authorized at 70 percent of the cost of a States's program, with the State contributing the remaining 30 percent. In fiscal year 2001 States have had to provide more than their required level of matching funds in order to maintain their operations. If Federal funds were further pro rated, there could come a point at which a State would consider its program not to be viable.

CONSERVATION PROGRAM CUTS

Question. USDA's proposed budget adequately addresses some of our agricultural, trading, and food safety priorities. Yet, I believe it fails to make some specific and significant investments in a secure farm safety net, conservation programs, efforts to restore marketplace competition, and rural development.

I am specifically concerned about the cuts or elimination of funds in fiscal year 2002 for important conservation programs such as the Wetlands Reserve Program, the Wildlife Habitat Incentives Program, and the Emergency Conservation Program.

Can we expect USDA to re-evaluate their position on significant cuts to conservation programs?

Answer. President Bush has made it clear that providing a farm security net consistent with the free market, including assistance to farmers to protect our farm-based natural resources, is a key objective of USDA's mission. USDA is reviewing and analyzing program and policy options, to be considered in the next Farm Bill, that would achieve this objective. Objectives within this review and analysis process include (1) establishment of the appropriate balance between the two major approaches to resource protection—i.e., major land use change, such as cropland retirement, and better management and protection of working farmlands, (2) better targeting of funding for programs and policies involving either approach, and (3) more and better cooperation with local and State governments to ensure that the Federal funds are best spent and funding leverage is maximized.

The Wetlands Reserve Program and the Wildlife Habitat Incentive Program have reached the acreage and/or funding limits established under the Federal Agriculture Improvement and Reform Act of 1996. Any future recommendations for these two programs or programs of these types will be developed within the farm bill review and analysis process. The President's Budget requests no funding for the Emergency Conservation Program for fiscal year 2002. However, the $5.6 billion Government-wide National Emergency Reserve proposed in the President's Budget could provide for emergency conservation needs.

Question. Does USDA agree that programs like CRP, WRP, the new Farmable Wetlands Pilot, and others should be considered as part of a farm bill?

Answer. USDA is in the process of reviewing and analyzing conservation policies and programs to be considered for the next farm bill. The important resource conservation actions and policies embodied in the current Conservation Reserve Program, Wetland Reserve Program, and the Farmable Wetlands Pilot Program will be carefully reviewed and evaluated in establishing our conservation program proposals and priorities.

WOOL ASSISTANCE PROGRAM

Question. Some sheep producers in South Dakota have indicated to me that although the signup period for the ad hoc wool assistance program ends this Friday (May 4), actual payments will not be made until mid to late June. Sheep growers truly expect the payments to be made in May.

Can you confirm when the payments will be made on this program?

Answer. The target date for payments under the Wool and Mohair Market Loss Assistance Program (WAMLAP) II is the week of June 20, 2001.

Question. Also, can you provide me with the wool payments per State and how many producers are participating in the emergency wool program?

Answer. There are approximately 66,800 sheep and lamb operations that participated in WAMLAP I. Participation in WAMLAP II will not be known until the program's conclusion. Attached is a breakdown by State of WAMLAP I payment activity.

Wool and Mohair Market Loss Assistance Program
as of May 2, 2001
(Data Transmitted From Counties as of April 30, 2001)

Funds Available				$10,500,000.00
State:	Cumulative Wool Activity	Cumulative Mohair Activity	Cumulative Unshorn Lamb Act.	Total Activity
Alabama	$1,564.20	$180.00	$0.00	$1,744.20
Alaska	59.60	2.40	0.00	62.00
Arizona	131,060.60	32,434.80	0.00	163,495.40
Arkansas	2,904.20	1,949.20	0.00	4,853.40
California	732,317.20	3,566.80	0.00	735,884.00
Colorado	589,852.60	2,992.00	0.00	592,844.60
Connecticut	2,296.20	0.00	0.00	2,296.20
Delaware	394.20	0.00	0.00	394.20
Florida	15.00	0.00	0.00	15.00
Georgia	3,406.20	280.40	0.00	3,686.60
Guam	0.00	0.00	0.00	0.00
Hawaii	2,356.00	0.00	0.00	2,356.00
Idaho	482,088.60	566.80	0.00	482,655.40
Illinois	49,204.40	1,079.60	0.00	50,284.00
Indiana	26,658.40	151.20	0.00	26,809.60
Iowa	285,462.80	5,036.80	0.00	290,499.60
Kansas	108,764.20	2,089.20	0.00	110,853.40
Kentucky	11,606.20	373.20	0.00	11,979.40
Louisiana	359.80	0.00	0.00	359.80
Maine	5,251.40	124.40	0.00	5,375.80
Maryland	10,877.40	68.80	0.00	10,946.20
Massachusetts	6,122.40	700.00	0.00	6,822.40
Michigan	63,769.20	3,404.00	0.00	67,173.20
Minnesota	177,751.80	3,920.40	0.00	181,672.20
Mississippi	819.60	0.00	0.00	819.60
Missouri	56,769.40	12,149.60	0.00	68,919.00
Montana	613,233.20	11,592.40	0.00	624,825.60
Nebraska	91,761.20	8,396.00	0.00	100,157.20
Nevada	100,351.40	0.00	0.00	100,351.40
New Hampshire	2,857.00	30.40	0.00	2,887.40
New Jersey	2,980.60	107.60	0.00	3,088.20
New Mexico	414,021.80	51,219.60	0.00	465,241.40
New York	42,083.00	1,240.00	0.00	43,323.00
North Carolina	3,183.80	1,079.60	0.00	4,263.40
North Dakota	158,290.80	5,177.20	0.00	163,468.00
Ohio	120,747.20	9,139.20	0.00	129,886.40
Oklahoma	32,168.60	7,248.00	0.00	39,416.60
Oregon	321,499.40	2,716.00	0.00	324,215.40
Pennsylvania	41,004.00	2,063.60	0.00	43,067.60
Puerto Rico	0.00	0.00	0.00	0.00
Rhode Island	670.20	92.00	0.00	762.20
South Carolina	792.00	0.00	0.00	792.00
South Dakota	559,688.80	4,439.60	0.00	564,128.40
Tennessee	5,359.60	294.00	0.00	5,653.60
Texas	1,795,179.97	1,357,408.00	0.00	3,152,587.97
Utah	693,718.40	3,571.20	0.00	697,289.60
Vermont	10,145.60	448.80	0.00	10,594.40
Virginia	36,395.00	1,723.20	0.00	38,118.20
Virgin Islands	0.00	0.00	0.00	0.00
Washington	51,184.20	1,164.00	0.00	52,348.20
West Virginia	23,422.20	212.00	0.00	23,634.20
Wisconsin	61,771.00	517.60	0.00	62,288.60
Wyoming	797,020.40	4,469.20	0.00	801,489.60
Cumulative Totals	$8,731,260.97	$1,545,418.80	$0.00	$10,276,679.77

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Indonesia	500.00	424.40	75.60	4/ 6/ 8/
Animal Genetics(Embryos and Semen)(36)		0.00		
Barley Malt (36)		0.00		
Brine Shrimp Eggs (Farm Raised) (36)		0.00		
Corn Products (36)		0.00		
Cotton (36)		49.40		
Cotton Fabrics 100% (36)		0.00		9/
Cotton Yarn 100% (36)		0.00		9/
Dairy Products (36)		0.00		
Feed Grains (36)		24.60		
Fruit, Dried (36)		0.00		
Fruit, Fresh (36)		0.00		
Fruit Juice (36)		0.00		
Hides and Skins (36)		0.00		
Leather (36)		0.00		9/
Livestock, Breeder (36)		0.00		
Meat, Frozen or Chilled (36)		1.40		
Oilseeds (36)		247.30		
Planting Seeds (36)		0.00		
Potatoes (36)		0.00		
Poultry Breeder Stock (36)		0.00		
Protein Meals (36)		75.80		
Pulses (36)		0.00		
Rice (36)		0.00		
Tree Nuts (36)		0.00		
Wheat; Wheat Flour; Semolina (36)		25.90		
Wood Products, Solid (36)		0.00		
Wood Pulp (36)		0.00		
Wool; Mohair (36)		0.00		
Jordan	50.00	10.30	39.70	4/
All Commodities (36)		0.00		5/ 6/
Sub-Total...	**10.00**	**0.00**	**10.00**	
Feed Grains (36)		5.00		15/
Wheat (36)		5.30		
Sub-Total...	**40.00**	**10.30**	**29.70**	
Kazakhstan	10.00	0.00	10.00	4/ 5/ 8/
All Commodities (12)		0.00		
Korea	575.00	496.10	78.90	8/ 12/
Cotton (24)	60.00	49.10	10.90	
Feed Grains (24)		79.20		
Soybean Meal (24)		0.00		
Sub-Total...	**100.00**	**79.20**	**20.80**	
Oilseeds (24)		125.40		21/
Tree Nuts (24)		0.20		
Wood Products, Solid (24)		0.50		
Other Commodities (24)		0.00		6/
Sub-Total...	**170.00**	**126.10**	**43.90**	
Hides and Skins (24)	30.00	30.00	0.00	
Leather (24)	10.00	10.00	0.00	9/
Meat, Frozen or Chilled (Beef & Pork) (24)	55.00	51.70	3.30	
Wheat (24)	150.00	150.00	0.00	21/

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Lebanon	10.00	0.00	10.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
Sub-Total...	**3.00**	**0.00**	**3.00**	19/
All Commodities (36)		0.00		
Sub-Total...	**7.00**	**0.00**	**7.00**	
Malaysia	100.00	14.30	85.70	4/ 5/ 6/
Oilseeds (36)		14.30		
Other Commodities (36)		0.00		
Mexico	1,000.00	998.90	1.10	5/ 6/ 8/ 10/
Animal Feed Products (24)		0.60		
Corn Products (24)		0.20		
Cotton (24)		117.60		
Dairy Products (24)		1.60		
Feed Grains (24)		343.50		
Hides and Skins (24)		6.20		
Leather (24)		2.80		9/
Livestock, Breeding (24)		0.50		
Meat, Frozen or Chilled (24)		110.90		
Oilseeds (24)		259.50		
Protein Meals (24)		14.20		
Rice (24)		2.60		
Tallow (24)		28.00		
Pickles, Condiments, Sauces (24)		0.50		9/
Vegetable Oils (24)		50.50		
Wheat, Wheat Flour, Semolina (24)		59.70		
Other Commodities (24)		0.00		
Morocco	10.00	0.00	10.00	4/ 5/ 6/
All Commodities (36)		0.00		
Nigeria	9.00	3.29	5.71	4/ 5/
Soup, Dehydrated Instant (90 days)		0.07		9/
Prepared Foods, Shelf Stable (90 days)		0.16		9/
Rice (90 days)		3.06		
Other Commodities (90 days)		0.00		
Pakistan	125.00	0.00	125.00	4/ 8/ 13/
Wheat (36)		0.00		
Philippines	100.00	41.50	58.50	4/ 5/ 6/
Feed Grains (36)		3.90		
Protein Meals (36)		3.50		
Wheat (36)		34.10		
Other Commodities (36)		0.00		
Poland	25.00	0.00	25.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
Romania	10.00	9.70	0.30	4/ 5/ 6/
Wheat (36)		9.70		
Other Commodities (36)		0.00		
Southeast Asia Region	90.00	16.30	73.70	4/ 5/ 6/
Feed Grains (36)		7.50		
Oilseeds (36)		8.80		
Other Commodities (36)		0.00		
Southeast Europe Region	25.00	0.00	25.00	4/ 5/ 6/ 8/
All Commodities (24)		0.00		
Southern Africa Region	50.00	0.00	50.00	4/ 5/ 6/
All Commodities (36)		0.00		

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Sri Lanka	70.00	0.00	70.00	4/ 8/
Cotton (36)	20.00	0.00	20.00	
Wheat (36)	50.00	0.00	50.00	
Thailand	290.00	3.90	286.10	4/ 5/ 6/
Leather (36)		3.90		9/
Other Commodities (36)		0.00		
Tunisia	30.00	0.00	30.00	4/
All Commodities (36)		0.00		5/
Sub-Total...	**20.00**	**0.00**	**20.00**	
Vegetable Oils, Including Fully Refined (36)		0.00		17/
Sub-Total...	**10.00**	**0.00**	**10.00**	
Turkey	435.00	421.30	13.70	5/ 6/ 7/
Animal Feed Products (36)		1.10		
Cotton (36)		120.10		
Feed Grains (36)		85.90		
Hides and Skins (36)		1.60		
Oilseeds (36)		51.90		
Planting Seeds (36)		0.20		
Protein Meals (36)		58.00		
Rice (36)		28.10		
Tallow (36)		26.60		
Vegetable Oils (36)		40.10		
Wheat (36)		7.70		
Other Commodities (36)		0.00		
Uzbekistan	20.00	15.90	4.10	4/ 5/ 8/ 22/
Oilseeds (24)		15.90		
Other Commodities (24)		0.00		
West Africa Region	14.00	12.00	2.00	4/
Rice (12)		12.00		
Other Commodities (12)		0.00		5/
Sub-Total...	**12.00**	**12.00**	**0.00**	
Animal Genetics (36)		0.00		
Cattle (Feeder) (36)		0.00		
Livestock, Breeder (36)		0.00		
Sub-Total...	**2.00**	**0.00**	**2.00**	
West Caribbean Region	35.00	4.00	31.00	5/ 7/ 8/
Feed Grains (18)		2.60		
Protein Meals (18)		1.40		
Other Commodities (18)		0.00		
TOTAL FOR GSM-102	4,550.00	2,927.79	1,622.21	
For Comparison Purposes: FY 1999 Payment Guarantee Commitments through September 30, 1999.				
TOTAL FOR GSM-102	5,121.00	2,955.10	2,165.90	

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-103 as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Central America Region	5.00	0.00	5.00	4/
Animal Genetics (7 years)		0.00		
Cattle (Feeder) (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		
Egypt	5.00	0.00	5.00	4/
Livestock, Breeder (7 years)		0.00		
Poultry Breeder Stock (7 years)		0.00		
Indonesia	10.00	0.00	10.00	4/ 8/
Animal Genetics (7 years)		0.00		
Cattle (Feeder) (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		
Jordan	15.00	13.00	2.00	4/ 16/
Feed Grains (5 years)		0.00		
Wheat (5 years)		13.00		
Lebanon	10.00	1.90	8.10	4/ 8/
Animal Genetics (5 years)		0.00		
Cattle (Feeder) (5 years)		0.00		
Livestock, Breeder (5 years)		1.90		
Sub-Total...	**7.00**	**1.90**	**5.10**	20/
Animal Genetics (5 years)		0.00		
Cattle (Feeder) (5 years)		0.00		
Livestock, Breeder (5 years)		0.00		
Sub-Total...	**3.00**	**0.00**	**3.00**	
Mexico	35.00	2.20	32.80	11/
Animal Genetics (7 years)		0.00		
Cattle (Feeder) (7 years)		0.00		
Livestock, Breeder (7 years)		2.20		
Morocco	50.00	6.40	43.60	4/
Feed Grains (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		
Oilseeds (7 years)		0.00		
Protein Meals (7 years)		0.00		
Vegetable Oil (7 years)		0.00		
Wheat (7 years)		6.40		
Peru	5.00	0.00	5.00	4/
Animal Genetics (5 years)		0.00		
Livestock, Breeder (5 years)		0.00		
Philippines	2.00	0.00	2.00	4/
Livestock, Breeder (7 years)		0.00		
Poland	5.00	0.00	5.00	4/
Animal Genetics (7 years)		0.00		
Cattle (Feeder) (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		
Southern Africa Region	1.00	0.00	1.00	4/
Animal Genetics (7 years)		0.00		
Cattle (Feeder) (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-103 as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Tunisia	40.00	9.10	30.90	4/ 18/
Feed Grains (7 years)		2.10		
Wheat, Wheat Flour, Semolina (7 years)		7.00		
Turkey	5.00	0.00	5.00	4/
Animal Genetics (7 years)		0.00		
Cattle, Feeder (7 years)		0.00		
Livestock, Breeder (7 years)		0.00		
Poultry Breeder Stock (7 years)		0.00		
TOTAL FOR GSM-103	188.00	32.60	155.40	
For Comparison Purposes: FY 1999 Payment Guarantee Commitments through September 30, 1999.				
TOTAL FOR GSM-103	377.00	44.20	332.80	

Summary of FY 2000 Supplier Credit Guarantee Program (SCGP) Activity as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 16/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/ 15/
	—coverage in millions of dollars—			
Andean Region	10.00	0.00	10.00	4/ 5/
All Commodities (180)		0.00		
Argentina	1.00	0.61	0.39	4/ 5/
Soup, Dehydrated Instant (180)		0.61		9/
All Commodities (180)		0.00		
Azerbaijan	5.00	0.56	4.44	4/ 5/
Meat, Frozen or Chilled (180)		0.56		
Other Commodities (180)		0.00		
Baltic Region	10.00	6.07	3.93	4/ 5/
Cotton (180)		0.49		
Meat, Frozen or Chilled (180)		5.58		
Other Commodities (180)		0.00		
Brazil	10.00	0.00	10.00	4/ 5/
All Commodities (180)		0.00		
Central America Region	15.00	14.57	0.43	4/ 5/
Animal Feed Products (180)		0.14		
Dairy Products (180)		0.13		
Feed Grains (180)		1.00		
Meat, Frozen or Chilled (180)		7.98		
Protein Meals (180)		0.16		
Rice (180)		4.93		
Vegetable Oils (36)		0.23		
Other Commodities (180)		0.00		
Central Europe Region	20.00	0.00	20.00	4/ 5/
All Commodities (180)		0.00		
East Africa Region	5.00	0.00	5.00	4/ 5/
All Commodities (180)		0.00		
East Caribbean Region	5.00	1.19	3.81	4/ 5/
Cotton Fabrics 100% (180)		0.13		9/
Soft Drinks and other Beverages (180)		0.55		9/
Soup, Dehydrated Instant (180)		0.51		9/
Other Commodities (180)		0.00		
Egypt	10.00	1.32	8.68	4/ 5/
Meat, Frozen or Chilled (180)		1.32		
Other Commodities (180)		0.00		
Israel	20.00	0.13	19.87	4/ 5/
Wine, Brandy (180)		0.13		
Other Commodities (180)		0.00		
Kazakhstan	5.00	3.81	1.19	4/ 5/
Meat, Frozen or Chilled (180)		3.81		
Other Commodities (180)		0.00		
Korea	50.00	1.17	48.83	4/ 5/
Fruit, Fresh (180)		1.14		
Wine, Brandy (180)		0.03		
Other Commodities (180)		0.00		

Summary of FY 2000 Supplier Credit Guarantee Program (SCGP) Activity as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 16/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/ 15/
	--coverage in millions of dollars--			
Mexico	100.00	62.26	37.74	5/
Animal Fat Blends (180)		0.10		
Aquaculture Feed (180)		1.49		
Cotton (180)		0.88		
Feed Grains (180)		20.09		
Meat, Frozen or Chilled (180)		8.43		
Oilseeds (180)		30.31		
Potatoes (Cut/Chilled or Frozen) (180)		0.10		
Protein Meals (180)		0.03		
Rice (180)		0.82		
Soft Drinks and other Beverages (180)		0.01		9/
Other Commodities (180)		0.00		
Poland	10.00	0.00	10.00	4/ 5/
All Commodities (180)		0.00		
Romania	5.00	0.00	5.00	4/ 5/
All Commodities (180)		0.00		
Southeast Asia Region	50.00	2.74	47.26	4/ 5/
Fish and Shellfish (180)		0.01		
Fruit, Fresh (180)		0.06		
Fruit/Veg. Concentrates (180)		0.01		
Meat, Frozen or Chilled (180)		0.41		
Soft Drinks and other Beverages (180)		0.64		
Soup, Dehydrated Instant (180)		1.50		
Tree Nuts (180)		0.10		
Wine, Brandy (180)		0.01		
Other Commodities (180)		0.00		
Southeast Europe Region	20.00	0.00	20.00	4/ 5/
All Commodities (180)		0.00		
Taiwan	50.00	0.00	50.00	4/ 5/
All Commodities (180)		0.00		
Turkey	5.00	0.69	4.31	4/ 5/
Hides and Skins (180)		0.48		
Tree Nuts (180)		0.21		
Other Commodities (180)		0.00		

Summary of FY 2000 Supplier Credit Guarantee Program (SCGP) Activity as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 16/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/ 15/
	--coverage in millions of dollars--			
West Africa Region	45.00	18.02	26.98	4/ 5/
Cereal, Breakfast (hot/cold) (180)		0.20		9/
Pickles, Condiments, Sauces (180)		0.10		9/
Corn Products (180)		0.01		
Fruit, Frozen (180)		0.01		9/
Fruit Juice (180)		0.07		
Fruit/Veg. Concentrates (180)		0.01		
Honey Products (180)		0.02		9/
Lard (180)		0.01		
Meat, Frozen or Chilled (180)		0.18		
Meat, Processed (180)		0.06		9/
Prepared Foods, Frozen (180)		0.02		9/
Prepared Foods, Shelf Stable (180)		0.07		9/
Pulses (180)		0.01		
Rice (180)		7.48		
Snack Foods (180)		0.11		9/
Soft Drinks and other Beverages (180)		2.23		9/
Soup, Dehydrated Instant (180)		3.23		9/
Tallow (180)		0.01		
Vegetables, Canned (180)		0.12		
Vegetables, Dried (180)		0.02		
Vegetables, Frozen (180)		0.04		
Vegetable Oils (180)		0.22		
Wheat (180)		3.79		
Other Commodities (180)		0.00		
West Caribbean Region	5.00	3.23	1.77	4/ 5/
Rice (180)		3.23		
Other Commodities (180)		0.00		
Yemen	10.00	0.00	10.00	4/ 5/
All Commodities (180)		0.00		
TOTAL FOR SCGP	466.00	116.37	349.63	
For Comparison Purposes: FY 1999 Payment Guarantee Commitments through September 30, 1999.				
TOTAL FOR SCGP	361.00	46.02	314.98	

Summary of FY 2000 Facility Guarantee Program (FGP) Activity as of close of business:
September 30, 2000

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Andean Region	20.00	0.00	20.00	8/
Manufactured Goods/Services (5 years)		0.00		
Baltic Region	10.00	0.00	10.00	8/
Manufactured Goods/Services (5 years)		0.00		
Caribbean Region	20.00	0.00	20.00	8/
Manufactured Goods/Services (5 years)		0.00		
Central America Region	30.00	0.00	30.00	8/
Manufactured Goods/Services (8 years)		0.00		
East Africa Region	10.00	0.00	10.00	8/
Manufactured Goods/Services (3 years)		0.00		
Ghana	10.00	0.00	10.00	8/
Manufactured Goods/Services (3 years)		0.00		
Mexico	50.00	4.80	45.20	8/
Equipment (8 years)		4.80		
Manufactured Goods/Services (8 years)		0.00		
Romania	5.00	0.00	5.00	8/
Manufactured Goods/Services (5 years)		0.00		
Southeast Asia Region	50.00	0.00	50.00	8/
Manufactured Goods/Services (8 years)		0.00		
Southern Africa Region	10.00	0.00	10.00	8/
Manufactured Goods/Services (8 years)		0.00		
Turkey	10.00	0.00	10.00	8/
Manufactured Goods/Services (5 years)		0.00		
TOTAL FOR FGP	225.00	4.80	220.20	
For Comparison Purposes: Not available for this date. TOTAL FOR FGP	0.00	0.00	0.00	
TOTAL FOR CCC CREDITS	**5,429.00**	**3,081.56**	**2,347.44**	
For Comparison Purposes: FY 1999 Payment Guarantee Commitments through September 30, 1999. **TOTAL FOR CCC CREDITS**	**5,859.00**	**3,045.32**	**2,813.68**	

FY 2000

FOOTNOTES:

1/ **These announcement footnotes are indicative only. See actual provisions set forth in Program Announcements. These FAS news releases are available on the internet at http://www.fas.usda.gov or through fax polling. Callers should set their fax machines for polling and dial (202) 720-1728. For additional information, contact the FAS Information Division (202) 720-7115.**

2/ Except as noted, the following terms apply:
- –Coverage is available on an FAS/FOB basis
- –Maximum coverage is 98% of port value for GSM 102/103, SCGP is 65% of port value and FGP is 95% of port value.
- –Final registration date for is 9/30/00
- –Final export date is 11/30/00

3/ UNLESS OTHERWISE INDICATED, GSM-102 is shown in months, 103 in years, FGP in years and SCGP in days. *For SCGP no interest coverage is offered.

4/ Coverage on a C&F basis is available on sales made on C&F or CIF basis.

5/ Commodities as reflected in program announcement PR-0450-99 or as superseded. Credit terms as set forth in country/ regional program announcements.

6/ Credit terms for solid wood products, wood pulp and wood chips are offered up to 720 days.

7/ For Breeder Livestock, animal genetics, feeder cattle and poultry breeder stock, coverage is available on C&F basis to point of ocean vessel or international carrier discharge.

8/ For credit periods exceeding 6 months, principal repayments plus accrued interest are due at 6 month intervals.

9/ Products have been determined to be "high value products". See program announcement for details.

10/ Mexico(102)– Total authorization was $1.5 billion, however, $500 million remains unallocated i.e., non-operational.

11/ Mexico(103)–Total authorization was $100.0 million, however, $65.0 million remains unallocated i.e., non-operational.

12/ Korea(102)–Total authorization was $590.0 million, however, $15.0 million remains unallocated i.e., non-operational.

13/ Pakistan(102)–Total authorization was $210.0 million, however, $85.0 million remains unallocated i.e., non-operational.

14/ Egypt(102)–All commodities except poultry parts are eligible.

15/ Jordan(102)–The eligible buyer for the $40.0 million line of credit is Ministry of Industry & Trade.

16/ Jordan(103)–The eligible buyer is Ministry of Industry & Trade.

17/ Tunisia(102)–For the $10.0 million line of credit the eligible buyer is National Office of Oil.

18/ Tunisia(103)–The eligible buyer is Office National de Cereales.

19/ Lebanon(102)–For the $3.0 million line of credit the eligible bank is the Central Bank of Lebanon.

20/ Lebanon(103)–For the $7.0 million line of credit the eligible bank is the Central Bank of Lebanon.

21/ Korea(102)–The contractual shipping period for oilseeds and wheat has been extended to December 31, 2000.

22/ Uzbekistan(102)–Coverage on C&F basis to named point of destination.

QUESTIONS SUBMITTED TO THE FOREIGN AGRICULTURAL SERVICE

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

STARLINK BUY-BACK/BIOENGINEERED FOODS

Question. The Washington Post has reported that StarLink was found in new categories of corn products such as corn bread, polenta, and hush puppies in tests conducted by the company, Aventis, that developed the corn.

In your opinion, will this trigger more food recalls and cause more countries that are opposed to genetically-engineered food to avoid U.S. food products?

Answer. It is our understanding that Aventis, in a petition to EPA, described a new, more sensitive test for the StarLink protein (Cry9C) in finished foods. Aventis submitted data showing that in some food products made from dry milled corn meal, such as corn muffins, the StarLink protein was not broken down, although the level of the protein in the food was greatly reduced. The products tested were made from 100 percent StarLink corn. In addition, Aventis' recent submission supported a report EPA issued in March for public comment which showed that the process of wet-milling corn effectively eliminates StarLink protein from finished food products, such as corn oil, corn syrup, alcohol, and corn starch. However, contrary to what was reported in the Washington Post article, Aventis did not itself test any commercial food products and so did not find any StarLink in such foods. EPA will carefully evaluate this new information as it continues to review Aventis' pending request to completely authorize StarLink corn in the human food supply.

Pending a comprehensive evaluation of all scientific information available on human health concerns related to StarLink corn, EPA, the U.S. Food and Drug Administration (FDA) and the U.S. Department of Agriculture are continuing to coordinate an aggressive Federal effort, in cooperation with growers, millers, the food industry, and Aventis to divert StarLink corn away from the human food supply. USDA has been very successful working with growers and seed companies to ensure that bags of corn seed intended for the 2001 growing season are tested for the presence of StarLink corn and are not planted if found to contain StarLink. FDA and the Centers for Disease Control and Prevention (CDC) are continuing their investigation of cases in which people reported experiencing allergic reactions from eating corn products. Results of this investigation will be made public as soon as they are available.

Due to these extraordinary efforts, we are hopeful that few if any future food recalls due to the new test will be necessary, and that countries importing U.S. corn may rest assured that it is safe.

AGRICULTURAL TRADE/FOREIGN AGRICULTURAL SERVICE

Question. Last week, the Secretary testified that the Administration has established an ambitious trade expansion agenda, and USDA will be a "full and active participant in that effort." Can you be more specific about the major trade barriers faced by U.S. agriculture and how the Department is working and coordinating its efforts to further reduce trade-distorting policies, ensure fair competition in global markets, and expand and enhance economic and trade opportunities for U.S. agriculture?

Answer. There are numerous areas where USDA is working, together with USTR and other U.S. Government agencies, to remove barriers to U.S. agricultural exports. In addition to the numerous bilateral issues that come up on a regular basis, as indicated in the explanatory notes for FAS, one of the most significant USDA activities is the WTO negotiations on agriculture. These negotiations began in early 2000, as required by the WTO Agreement on Agriculture, and are making good progress. This is an important opportunity to reduce barriers in all of our trading partners with one agreement. Many significant barriers to our exports will be addressed in these WTO negotiations. In the area of market access, the most significant barrier we face is high tariffs. Average world tariffs for agricultural products are higher than 60 percent, compared to the U.S. average of around 12 percent. We have proposed that these tariffs be reduced substantially and in a manner that reduces disparities among countries. In the area of subsidies, the European Union spends more than $5 billion in export subsidies annually, nearly 90 percent of all the export subsidies notified to the WTO. We have proposed that all export subsidies be eliminated. These are just some of the issues that are being dealt with in the WTO agriculture negotiations. For a complete listing of our proposals please look on the FAS web site (www. FAS.USDA.gov) under Trade Policy. USDA is also working closely with USTR and other agencies on regional and bilateral free trade

agreement negotiations such as the Free Trade Area of the Americas, the Chile FTA, and the Singapore FTA.

Another important area where U.S. agriculture faces barriers to our exports is the area of Sanitary and Phytosanitary (SPS) restrictions. While every country has the right to protect the health and safety of its consumers and to protect its producers from diseases and pests, these types of measures are often used to restrict trade without an appropriate scientific basis. USDA works with other government agencies, including FDA and USTR, to remove or modify these measures so that they do not impede U.S. exports. We also work to develop appropriate standards in the international standard setting bodies and to educate the authorities in developing countries so that their governments are less likely to adopt measures which do not meet the requirements of the WTO SPS agreement.

Another important area of work for USDA is to limit the restrictions being established in many countries on trade in the products of biotechnology. As these products become more common in international trade, many countries are proposing labeling and other measures to control their use and distribution. FAS does not currently have sufficient resources to keep up with the growing work load generated by these changes and, therefore, the President's budget has proposed additional funding for that purpose.

Question. The fiscal year 2002 budget is an increase of $6.4 million above the fiscal year 2001 level to enhance the Foreign Agricultural Service's capabilities to address technical trade issues and to strengthen the Service's market intelligence capabilities at its overseas posts. Please give us an assessment of our current capabilities in each of these areas and how our efforts will be strengthened with the additional funds requested.

Answer. Roughly half of this increase covers non-discretionary increases in salaries and benefits associated with the proposed fiscal year 2002 pay raise. The remainder is intended for expanding overseas market intelligence capacity and dealing with technical trade barriers.

FAS overseas posts have traditionally focused on providing market research and intelligence, promoting U.S. products through marketing activities, and administering food aid programs. Since the Uruguay Round, this workload has been increased by the need to ensure foreign market access through trade policy activities. Growth of this portion of an already heavy workload, especially as it relates to non-tariff barriers, has shifted attention in our overseas posts from traditional reporting to trade policy interventions. Nevertheless, at this time we are unable to follow WTO compliance systematically, even to the extent of translating and analyzing other countries' formal WTO notifications of intended changes in regulations and laws. Our efforts to shift from gathering market intelligence on traditional bulk commodities to increasing emphasis on the faster-growing consumer-ready market segment have been hampered by diversion of staff resources to market access issues. We are missing market opportunities. New overseas staff will handle routine market intelligence and analytical chores as well as bolster our ability to track compliance with WTO obligations. Adding staff for this routine work will free our American agricultural attaches to focus on high-priority market access tasks, while ensuring that unbiased, accurate, and time-critical market intelligence continues to flow.

In Washington, additional trade policy staff will focus on knocking down or preventing the erection of non-scientific, technical trade barriers. Some such barriers already keep U.S. products out of foreign markets, such as Europe's ban on bioengineered corn. Examples of potential future barriers could include bans on bioengineered cotton, which is already in the marketplace, or bioengineered wheat, which could be on the market in the next 3 years. Current staffing permits FAS to react ad hoc to crises. It is already not sufficient to review systematically foreign government compliance with WTO obligations, to develop and implement strategies for dealing with the growth in technical trade barrier activity, to resolve technical issues of commercializing new products of biotechnology, or to ensure support of U.S. positions on food safety when they are debated within standard-setting international organizations.

Question. Where do the greatest opportunities to expand U.S. agricultural exports exist? How are these determined?

Answer. The Foreign Agricultural Service has set a goal of increasing the U.S. share of world agricultural exports from its current level of 18 percent to 22 percent by 2010. To be successful in reaching this overall goal, the Department must increasingly focus its trade policy efforts and export promotion programs and activities in those markets expected to be the most dynamic import growth markets of the next 10 years. Our experience and empirical evidence indicate that the greatest opportunities are in the emerging markets of China, Southeast Asia and Latin Amer-

ica (especially Mexico). In the somewhat longer term, India should be added to the list.

This determination is based on two primary factors. The first factor is based on identifying where overall food consumption growth is expected to be greatest given projected increases in consumer incomes and the propensities to translate those income gains into increased food consumption. This roughly translates into identifying the countries where the growth in the middle class is expected to be the greatest. One of the first consumer "needs" to be satisfied during the transition to middle class is food—namely, the quantity and variety of food consumed. In 19 of the world's largest developing countries, experts have projected 600 million additional middle class consumers will emerge by 2006—the large majority are in the markets listed above.

The second factor involves those countries with very high market access barriers where reductions in those barriers through trade negotiations would translate into significant new opportunities for U.S. exporters. With the exception of Mexico, many of the countries identified above impose substantial barriers to U.S. exporters. For example, agricultural tariffs average 62 percent in WTO countries as a whole and over 100 percent (super tariffs) in a number of developing countries such as India. Levels that high not only sharply reduce U.S. exports, they act as a tax on local consumers, which leads to higher domestic prices and reduced overall food demand. The higher prices, in turn, lead to overproduction by local producers and is just another form of domestic support—paid for by consumers instead of taxpayers.

For the countries listed above, the combination of these two factors put them at the top of our list of "best growth market" prospects over the next 10 years. U.S. success in these growth markets will largely determine whether FAS' 22 percent market share goal will be achieved. However, there will be fierce competition among the world's major exporters (i.e. the EU and Cairns Group) to capture a large share of this new demand. Given the significant role that exchange rates play plus the increasing export expansion commitments of our competitors, especially in the area of market development, it is still too early to predict who will capture the lion's share of these new export opportunities.

COCHRAN FELLOWSHIP PROGRAM

Question. The fiscal year 2002 budget proposes to maintain appropriations for the Cochran Fellowship Program at a level of $4 million. What are the benefits of this program, not only in terms of educating foreign participants about U.S. products, but educating them about U.S. policies on issues such as food safety and biotechnology?

Answer. In fiscal year 2001, we expect to provide training programs for over 830 international participants from about 75 countries. This will be about a 14 percent increase in the number of participants from fiscal year 2000. Roughly half of these activities will directly involve providing training to potential international buyers of U.S. agricultural products, and will include making direct contact between U.S. agricultural producers and potential buyers. These activities will provide U.S. producers the opportunity to showcase not only the variety of U.S. products available on the market but to educate potential consumers about the uses and quality of these products. Many of these potential buyers are from countries not currently importing U.S. agricultural products.

Because market access issues in the areas of food safety and biotechnology remain a significant constraint to increased market opportunities, the Cochran Fellowship Program is working with FAS Agricultural Affairs Offices overseas and with our USDA regulatory agencies to provide training in these areas. For example: USDA's Animal and Plant Health Inspection Service (APHIS) and Food Safety and Inspection Service (FSIS) are working with the Cochran Program to provide training to their counterparts in other countries in animal diseases and meat and poultry inspection. We expect to provide training to over 50 international participants in these areas in fiscal year 2001. We also expect to provide training to over 70 international regulators, scientists, and journalists regarding biotechnology issues. In addition, we will organize World Trade Organization (WTO) accession training activities for about 15 international policy makers in fiscal year 2001.

Question. How has the Cochran Fellowship Program contributed to our market development efforts?

Answer. The Cochran Fellowship Program works with FAS Agricultural Affairs and Agricultural Trade Offices overseas, as well as with U.S. agricultural trade and market development associations, to identify candidates for training that benefit market development efforts. This process has proven successful in the past. Examples include the following:

—Turkish participants who attended a Food Executive Program in fiscal year 2000 have already imported biscuits, cheese cake, popcorn, and peanuts from the U.S. and plan to import over $5 million in 2001;
—A Russian participant purchased a 54 head dairy goat herd (valued at over $1 million);
—A Moldovan participant has been buying U.S. soybeans for human consumption and has recently opened 10 new shops due to increased demand;
—Vietnamese and Colombian participants started importing California wine as a result of their training; a participant from India reports that he started importing cherries, apricots, prunes, and other items;
—A Polish participant purchased 5,300 portions of U.S. cattle semen; and
—The American Soybean Association states that the Cochran Program has benefitted U.S. export of soybeans to Russia.

Question. In past years, additional funding has been provided for the program through AID and the CCC emerging markets program. Is additional funding being provided for the program in fiscal year 2001?

Answer. The Cochran Fellowship Program received $1.662 million from AID through the Freedom Support Act in fiscal year 2001 for activities in the Independent States of the Former Soviet Union. To date we have received $720,000 in fiscal year 2001 funding from the CCC Emerging Markets Program in support of Cochran activities in China, Southern Africa, and Serbia/Montenegro. We intend to request additional funds for Vietnam and Russia in the near future.

Question. Is the fiscal year 2002 funding level proposed for the Cochran Fellowship Program sufficient to extend fellowships to all countries which seek to participate in the program? If not, what additional funding would be required to meet these requests?

Answer. Each year the demand for the Cochran Fellowship Program expands, not only for additional countries but also to increase the size and scope of the program in some countries. In fiscal year 2001, for example, the program expanded into seven new countries (Yemen, Bolivia, Ecuador, Peru, Zimbabwe, Mozambique, and Botswana), requests for the number of Cochran fellows increased about 14 percent from 735 participants to over 830 participants, and we have seen significant expansion in requests for training in food safety, biotechnology, WTO accession, and the global food for education program. We estimate that the budget request is sufficient to meet the needs of the program.

Question. Please provide the fiscal year 2000 and 2001 program participant levels by country and region.

Answer. In fiscal year 2000, the Cochran Fellowship Program provided training for 735 international participants from 70 countries. Participant numbers by region and by country follow:

Asia.—180 participants from nine countries: Malaysia (16 participants), China (43), Thailand (29), Indonesia (23), Philippines (19), Vietnam (31), India (11), Pakistan (2), and Sri Lanka (6).

Latin America and Caribbean.—165 participants from 23 countries: Mexico (16), Venezuela (15), Trinidad & Tobago (13), Antigua (1), Barbados (9), Dominica (1), Grenada (1), Haiti (1), Jamaica (23), Dominican Republic (2), St. Kitts & Nevis (3), St. Lucia (3), St. Vincent (2), Panama (7), Colombia (26), Guatemala (8), Honduras (4), Costa Rica (11), Nicaragua (6), Brazil (5), El Salvador (4), Guyana (2), and Uruguay (2).

Eastern Europe.—156 participants from 16 countries: Turkey (15), Poland (20), Hungary (10), Czech Republic (18), Slovakia (10), Albania (2), Bulgaria (15), Slovenia (10), Croatia (14), Latvia (8), Estonia (8), Lithuania (3), Romania (12), Bosnia (4), Macedonia (1), and Montenegro (6).

Africa and Middle East.—48 participants from 11 countries: Cote d' Ivoire (4), Ghana (1), Senegal (2), Nigeria (4), South Africa (6), Kenya (8), Uganda (4), Tanzania (1), Tunisia (8), Morocco (7), and Oman (3).

Independent States of the Former Soviet Union.—186 participants from 11 countries: Russia (41), Ukraine (21), Kazakstan (20), Kyrgyzstan (18), Uzbekistan (17), Turkmenistan (13), Tajikistan (4), Armenia (8), Moldova (17), Georgia (18), and Azerbaijan (9).

The Cochran Fellowship Program has selected over 830 participants for the program in fiscal year 2001. The largest regional increases are in Asian and Latin America and Caribbean countries, as these are considered the largest growth markets for U.S. agricultural products. The program is also expanding in Sub-Saharan Africa, and the Middle East.

Question. Please provide examples of the benefits of the 2000 Cochran Fellowship Program to U.S. agriculture.

Answer. Several examples of the benefits of fiscal year 2000 programs, include:

—A Regional Southeast Asia Biotechnology training program for regulators and journalists from Thailand, Malaysia, Indonesia, the Philippines, and Vietnam led to a number of positive local newspaper articles on the safety of U.S. biotechnology products.

—The Cochran Program worked with several U.S. companies to provide dairy genetics training to African dairy technicians in fiscal years 1998, 1999 and 2000. These programs enhanced the trade linkages with U.S. companies and U.S. genetic exports to the region have expanded significantly.

—The FAS Agricultural Trade Office (ATO) in Shanghai, China reports that a Chinese wood products team "reported more use of U.S. wood products, such as maple, cherry, and walnut, in their projects. And as these companies are major players or trend setters in interior decoration it also influenced the use of American wood products by other companies."

—Two Malaysian participants placed orders for trial shipments of Medjool dates, pecans, salted pistachios, prune concentrate, and other products after their Cochran training. The FAS Agricultural Office in Malaysia States: "The firsthand knowledge acquired served as a foundation for these importers to look to the United States for premium and quality products."

—An Indian participant in a Cochran supermarket program reports that he developed business relationships with several U.S. companies during the training. He reports that: "One container of grain has just arrived and another with Oregon cherries, California apricots, prunes, and other canned items will be here next month." Fiscal year 2000 was the first year for the Cochran Program in India.

—A fiscal year 1999 Vietnamese participant in a consumer food program reports that he "has set up a distribution center and plans to import 20 percent of the food products from the United States."

—The FAS Agricultural Trade Office in Miami reports that a 1999 Cochran participant is now the largest distributor in Barbados and has significantly increased imports of U.S. produce, especially organic, to supply hotels and cruise ships and increased Certified Angus Beef and other meat products. In addition, two chefs are now using new products from the U.S. in their menus, such as organic produce, gourmet mushrooms, and duck products.

—As a result of a Cochran Program, a Colombian company reports they have introduced California wine to the largest supermarket chain in Colombia, and are working with another Cochran team member to continue their marketing activities to other Latin American countries.

—Following his fiscal year 2000 training program, a Kazakh fellow organized a private farmers market and established a school to train private farmers in the Pavlodar Oblask.

—A Cochran Program for Polish veterinarians laid the foundation for new health certificates for shipment of U.S. livestock to Poland. The FAS Office in Warsaw estimates that these certificates will allow for the continued export of $50 to $60 million of U.S. commodities.

EXPORT CREDIT GUARANTEE ACTIVITIES

Question. Please provide a listing of the activities supported under each of the four export credit guarantee activities in fiscal year 2000 and in fiscal year 2001 to date: Supplier Credit Guarantees, Facilities Guarantees, GSM–102 and GSM–103.

Answer. The information follows:

ACTIVITIES FOR FISCAL YEAR 2001 ARE AS OF APRIL 27, 2001

Summary of FY 2000 Export Credit Guarantee Program Activity for GSM-102 as of close of business:

September 30, 2000 FINAL

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2000	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Andean Region	350.00	280.60	69.40	5/ 6/ 7/
Animal Feed Products (36)		0.70		
Aquaculture Feed (36)		0.20		
Cotton (36)		8.70		
Distillers Dried Grain (36)		0.90		
Feed Grains (36)		122.60		
Oilseeds (36)		9.60		
Protein Meals (36)		31.40		
Rice (36)		3.50		
Vegetable Oils (36)		2.90		
Wheat (36)		100.10		
Other Commodities (36)		0.00		
Argentina	7.00	1.30	5.70	5/ 6/ 7/ 8/
Cotton (36)		1.30		
Other Commodities (36)		0.00		
Azerbaijan	5.00	0.00	5.00	4/ 5/ 8/
All Commodities (12)		0.00		
Baltic Region	10.00	0.00	10.00	4/ 5/ 8/
All Commodities (12)		0.00		
Brazil	250.00	28.20	221.80	4/ 5/ 6/ 7/ 8/
Cotton (36)		10.50		
Grain Neutral Spirits (36)		15.00		
Lyocell (36)		2.70		
Other Commodities (36)		0.00		
Central America Region	110.00	89.10	20.90	5/ 6/ 7/
Cotton (36)		21.10		
Feed Grains (36)		21.60		
Oilseeds (36)		2.00		
Protein Meals (36)		23.00		
Rice (36)		14.40		
Tallow (36)		3.30		
Vegetable Oils (36)		1.10		
Wheat (36)		1.80		
Wheat Middlings (36)		0.80		
Other Commodities (36)		0.00		
Central Europe Region	10.00	0.00	10.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
East Africa Region	35.00	0.00	35.00	4/ 5/ 6/
All Commodities (24)		0.00		
East Caribbean Region	60.00	36.50	23.50	5/ 6/ 7/
Feed Grains (36)		5.40		
Oilseeds (36)		9.40		
Rice (36)		2.00		
Wheat (36)		19.70		
Other Commodities (36)		0.00		
Egypt	100.00	20.20	79.80	4/ 5/ 6/ 14/
Wheat (36)		20.20		
Other Commodities (36)		0.00		
Georgia, Republic of	10.00	0.00	10.00	4/ 5/ 6/
All Commodities (36)		0.00		
India	20.00	0.00	20.00	4/ 5/ 6/
All Commodities (36)		0.00		

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COUNTRIES INCLUDED WITHIN REGIONS:

FACILITY GUARANTEE PROGRAM:

ANDEAN REGION:	Bolivia, Colombia, Chile, Peru, Ecuador, and Venezuela
BALTIC REGION:	Estonia, Latvia and Lithuania
CARIBBEAN REGION:	Jamaica and Trinidad and Tobago
CENTRAL AMERICA REGION:	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
EAST AFRICA REGION:	Kenya, Uganda and Tanzania
SOUTHEAST ASIA REGION:	Indonesia, Malaysia, Philippines, Thailand and Vietnam
SOUTHERN AFRICA:	Angola, Botswana, Burundi, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Democratic Republic of the Congo (formerly Zaire), Zambia and Zimbabwe

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Algeria	25.00	0.00	25.00	4/
Feed Grains (180 days)		0.00		
Oilseeds (180 days)		0.00		
Wheat; Wheat Flour; Semolina (180 days)		0.00		
Azerbaijan	5.00	0.00	5.00	4/ 5/ 8/
All Commodities (12)		0.00		
Baltic Region	15.00	0.00	15.00	4/ 5/ 8/
All Commodities (12)		0.00		
Caribbean Region	95.00	35.30	59.70	4/ 5/ 6/ 8/
Corn Products (36)		0.50		
Feed Grains (36)		10.70		
Oilseeds (36)		7.00		
Protein Meals (36)		2.70		
Rice (36)		2.10		
Wheat (36)		12.30		
Other Commodities (36)		0.00		
Central America Region	110.00	83.97	26.03	5/ 6/ 7/
Animal Feed Products (36)		0.30		
Aquaculture Feed (36)		0.07		
Cotton (36)		13.30		
Feed Grains (36)		20.20		
Oilseeds (36)		5.50		
Protein Meals (36)		16.00		
Rice (36)		16.80		
Tallow (36)		2.30		
Vegetable Oils (36)		0.90		
Wheat (36)		8.60		
Other Commodities (36)		0.00		
Central Europe Region	10.00	0.00	10.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
China/Hong Kong Region	300.00	0.00	300.00	4/ 5/ 6/
All Commodities (36)		0.00		
Dominican Republic	25.00	0.00	25.00	4/ 5/ 8/
All Commodities (12)		0.00		
East Africa	5.00	0.00	5.00	4/ 5/ 8/
All Commodities (12)		0.00		
Egypt	100.00	6.10	93.90	4/ 5/ 6/
Wheat (36)		6.10		
Other Commodities (36)		0.00		
India	20.00	0.00	20.00	4/ 5/ 6/
All Commodities (36)		0.00		

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Indonesia	500.00	348.90	151.10	4/ 6/ 8/
Animal Genetics (36)		0.00		
Barley Malt (36)		0.00		
Brine Shrimp Eggs (36)		0.00		
Corn Products (36)		0.00		
Cotton (36)		31.10		
Cotton Fabrics 100% (36)		0.00		9/
Cotton Yarn 100% (36)		0.00		9/
Dairy Products (36)		0.00		
Feed Grains (36)		6.90		
Fruit, Dried (36)		0.00		
Fruit, Fresh (36)		0.00		
Fruit Juice (36)		0.00		
Hides and Skins (36)		0.00		
Leather (36)		0.00		9/
Livestock, Breeder (36)		0.00		
Meat (36)		0.00		
Oilseeds (36)		135.20		
Planting Seeds (36)		0.00		
Potatoes (36)		0.00		
Poultry Breeder Stock (36)		0.00		
Protein Meals (36)		88.50		
Rice (36)		0.00		
Tree Nuts (36)		0.00		
Wheat; Wheat Flour; Semolina (36)		87.20		
Wood Products, Solid (36)		0.00		
Wood Pulp (36)		0.00		
Wool; Mohair (36)		0.00		
Jordan	50.00	28.00	22.00	4/ 6/ 14/
Feed Grains (36)		0.00		
Wheat (36)		28.00		
Sub-Total...	40.00	28.00	12.00	
All Commodities (36)		0.00		5/
Sub-Total...	10.00	0.00	10.00	
Kazakhstan	10.00	0.20	9.80	4/ 5/ 8/
Meat (12)		0.20		
Other Commodities (12)		0.00		
Korea	575.00	334.70	240.30	10/
Cotton (24)	100.00	58.20	41.80	
Feed Grains (24)		58.50		
Soybean Meal (24)		0.00		
Sub-Total...	100.00	58.50	41.50	
Livestock, Breeder (24)		0.20		
Oilseeds (24)		67.30		
Other Commodities (24)		0.00		6/
Sub-Total...	125.00	67.50	57.50	
Hides and Skins (24)	40.00	20.10	19.90	
Leather (24)	10.00	10.00	0.00	9/
Meat (24)	50.00	42.90	7.10	
Wheat (24)	150.00	77.50	72.50	

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Lebanon	10.00	0.00	10.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
Malaysia	100.00	0.00	100.00	4/ 5/ 6/
All Commodities (36)		0.00		
Mexico	500.00	269.20	230.80	5/ 8/ 11/
Animal Feed Products (24)		0.10		
Cotton (24)		101.80		
Feed Grains (24)		41.80		
Leather (24)		0.90		
Hides and Skins (24)		2.10		
Meat (24)		43.90		
Oilseeds (24)		52.70		
Protein Meals (24)		0.60		
Tallow (24)		5.70		
Vegetable Oils (24)		15.40		
Wheat (24)		4.20		
Other Commodities (24)		0.00		
Morocco	10.00	0.00	10.00	4/ 5/ 6/
All Commodities (36)		0.00		
Nigeria	9.00	0.00	9.00	4/ 5/
All Commodities (90 days)		0.00		
Peru	80.00	2.80	77.20	4/ 5/ 6/
Feed Grains (36)		2.80		
Other Commodities (36)		0.00		
Philippines	100.00	0.00	100.00	4/ 5/ 6/
All Commodities (36)		0.00		
Poland	25.00	0.00	25.00	4/ 5/ 6/ 8/
All Commodities (36)		0.00		
Romania	25.00	14.00	11.00	4/ 5/ 8/
Feed Grains (12)		14.00		
Other Commodities (12)		0.00		
Russia	40.00	0.00	40.00	4/ 5/ 8/
All Commodities (12)		0.00		
South America Region	370.00	150.00	220.00	4/ 5/ 6/
Corn Products (36)		2.10		
Cotton (36)		6.40		
Distillers Dry Grain (36)		1.20		
Feed Grains (36)		48.60		
Grain Neutral Spirits (36)		28.40		
Lyocell (36)		0.60		
Oilseeds (36)		7.90		
Protein Meals (36)		9.60		
Vegetable Oils (36)		3.00		
Wheat (36)		42.20		
Other Commodities (36)		0.00		

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-102 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Southeast Asia Region	90.00	13.90	76.10	4/ 5/ 6/
Feed Grains (36)		0.70		
Protein Meals (36)		4.20		
Wheat (36)		9.00		
Other Commodities (36)		0.00		
Southeast Europe Region	25.00	0.00	25.00	4/ 5/ 6/ 8/
All Commodities (24)		0.00		
Southern Africa Region	50.00	0.00	50.00	4/ 5/ 6/
All Commodities (36)		0.00		
Sri Lanka	35.00	0.00	35.00	4/ 8/
Wheat (36)		0.00		
Thailand	290.00	0.00	290.00	4/ 5/ 6/
All Commodities (36)		0.00		
Tunisia	30.00	0.00	30.00	4/ 6/
Vegetable Oils (36)		0.00		12/
Sub-Total...	10.00	0.00	10.00	
All Commodities (36)		0.00		5/
Sub-Total...	20.00	0.00	20.00	
Turkey	345.00	193.40	151.60	5/ 6/ 7/
Corn Products (36)		0.50		
Cotton (36)		48.20		
Feed Grains (36)		24.60		
Hides and Skins (36)		0.40		
Leather (36)		1.10		
Oilseeds (36)		32.40		
Protein Meals (36)		42.00		
Rice (36)		14.20		
Tallow (36)		10.70		
Vegetable Oils (36)		15.40		
Wood Pulp (36)		3.90		
Other Commodities (36)		0.00		
West Africa Region	14.00	0.00	14.00	4/ 5/
Rice (12)		0.00		
Other Commodities (12)		0.00		
TOTAL FOR GSM-102	3,993.00	1,480.47	2,512.53	
For Comparison Purposes: FY 2000 Payment Guarantee Commitments through April 28, 2000.				
TOTAL FOR GSM-102	4,284.00	1,792.50	2,491.50	

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-103 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Central America Region	10.00	0.00	10.00	4/
Animal Genetics (7)		0.00		
Livestock, Breeder (7)		0.00		
Egypt	5.00	0.00	5.00	4/
Animal Genetics (7)		0.00		
Livestock, Breeder (7)		0.00		
Poultry Breeder Stock (7)		0.00		
Indonesia	10.00	0.00	10.00	4/
Animal Genetics (7)		0.00		
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		0.00		
Jordan	15.00	0.00	15.00	4/ 15/
Animal Genetics (5)		0.00		
Feeder Cattle (5)		0.00		
Feed Grains (5)		0.00		
Livestock, Breeder (5)		0.00		
Wheat (5)		0.00		
Lebanon	10.00	1.90	8.10	4/
Animal Genetics (7)		0.00		
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		1.90		
Mexico	35.00	2.20	32.80	
Animal Genetics (7)		0.00		
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		2.20		
Morocco	50.00	0.00	50.00	4/
Animal Genetics (7)		0.00		
Feed Grains (7)		0.00		
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		0.00		
Oilseeds (7)		0.00		
Protein Meals (7)		0.00		
Vegetable Oils (7)		0.00		
Wheat (7)		0.00		
Philippines	2.00	0.00	2.00	4/
Animal Genetics (7)		0.00		
Livestock, Breeder (7)		0.00		
Poland	5.00	0.00	5.00	4/
Animal Genetics (7)		0.00		
Livestock, Breeder (7)		0.00		
South America Region	5.00	0.00	5.00	4/
Animal Genetics (5)		0.00		
Livestock, Breeder (5)		0.00		
Southern Africa Region	1.00	0.00	1.00	4/
Animal Genetics (7)		0.00		
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		0.00		
Tunisia	40.00	21.60	18.40	4/
Feed Grains (7)		0.00		
Wheat (7)		21.60		

Summary of FY 2001 Export Credit Guarantee Program Activity for GSM-103 as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Turkey	5.00	0.00	5.00	
Animal Genetics (7)		0.00		4/
Feeder Cattle (7)		0.00		
Livestock, Breeder (7)		0.00		
Poultry Breeder Stock (7)		0.00		
TOTAL FOR GSM-103	193.00	25.70	167.30	
For Comparison Purposes: FY 2000 Payment Guarantee Commitments through April 28, 2000.				
TOTAL FOR GSM-103	228.00	14.53	213.47	

Summary of FY 2001 Supplier Credit Guarantee Program (SCGP) Activity as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Azerbaijan	5.00	0.00	5.00	4/ 5/
All Commodities (180)		0.00		
Baltic Region	10.00	3.69	6.31	4/ 5/
Cotton (180)		0.06		
Meat (180)		3.63		
Other Commodities (180)		0.00		
Caribbean Region	10.00	0.83	9.17	4/ 5/
Rice (180)		0.83		
Other Commodities (180)		0.00		
Central America Region	15.00	15.00	0.00	4/ 5/
Feed Grains (180)		0.40		
Meat (180)		6.70		
Protein Meals (180)		0.60		
Rice (180)		7.30		
Other Commodities (180)		0.00		
Central Europe Region	20.00	0.00	20.00	4/ 5/
All Commodities (180)		0.00		
China/Hong Kong Region	50.00	0.01	49.99	4/ 5/
Wine (180)		0.01		
Other Commodities (180)		0.00		
Egypt	10.00	7.43	2.57	4/ 5/
Fruit, Fresh (180)		0.53		
Meat (180)		6.90		
Other Commodities (180)		0.00		
Israel	20.00	0.08	19.92	4/ 5/
Wine (180)		0.08		
Other Commodities (180)		0.00		
Japan	50.00	0.01	49.99	4/ 5/
Vegetables, Fresh (180)		0.01		
Other Commodities (180)		0.00		
Kazakhstan	5.00	3.00	2.00	4/ 5/
Meat (180)		3.00		
Other Commodities (180)		0.00		
Kenya	2.00	0.00	2.00	4/ 5/
All Commodities (180)		0.00		
Korea	50.00	2.07	47.93	4/ 5/
Fruit, Fresh (180)		1.71		
Meat (180)		0.26		
Wine (180)		0.10		
Other Commodities (180)		0.00		
Macedonia	5.00	3.24	1.76	4/ 5/
Cotton (180)		3.24		
Other Commodities (180)		0.00		

Summary of FY 2001 Supplier Credit Guarantee Program (SCGP) Activity as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Mexico	100.00	66.56	33.44	5/
Aquaculture Feed (180)		0.40		
Cattle, Slaughter (180)		1.80		
Cotton (180)		0.10		
Feed Grains (180)		28.70		
Livestock, Breeder (180)		0.02		
Meat (180)		2.68		
Oilseeds (180)		27.10		
Pulses (180)		0.66		
Rice (180)		3.31		
Tallow (180)		0.30		
Vegetable Oils (180)		0.30		
Wine (180)		0.01		
Wood Products, Solid (180)		1.18		
Other Commodities (180)		0.00		
Poland	10.00	0.04	9.96	4/ 5/
Planting Seeds (180)		0.04		
Other Commodities (180)		0.00		
Russia	10.00	5.60	4.40	4/ 5/
Meat (180)		1.40		
Planting Seeds (180)		4.20		
Other Commodities (180)		0.00		
South America Region	20.00	0.24	19.76	4/ 5/
Poultry Breeder Stock (180)		0.12		
Rice (180)		0.12		
Other Commodities (180)		0.00		
Southeast Asia Region	50.00	0.48	49.52	4/ 5/
Condiments (180)		0.01		
Dairy Products (180)		0.01		
Fish (180)		0.01		
Fruit/Vegetable Concentrates (180)		0.01		
Fruit, Frozen (180)		0.01		
Meat (180)		0.16		
Snack Foods (180)		0.01		
Tree Nuts (180)		0.25		
Wine (180)		0.01		
Other Commodities (180)		0.00		
Southeast Balkans Region	75.00	0.00	75.00	4/ 5/
All Commodities (180)		0.00		
Southeast Europe Region	20.00	0.00	20.00	4/ 5/
All Commodities (180)		0.00		
Taiwan	50.00	0.01	49.99	4/ 5/
Wine (180)		0.01		
Other Commodities (180)		0.00		
Turkey	5.00	0.48	4.52	4/ 5/
Hides and Skins (180)		0.33		
Tree Nuts (180)		0.15		
Other Commodities (180)		0.00		
West Africa Region	45.00	1.83	43.17	4/ 5/
Rice (180)		1.83		
Other Commodities (180)		0.00		
Yemen	10.00	0.00	10.00	4/ 5/
All Commodities (180)		0.00		
TOTAL FOR SCGP	647.00	110.60	536.40	

For Comparison Purposes: FY 2000 Payment Guarantee Commitments through April 28, 2000.

TOTAL FOR SCGP	361.00	57.62	303.38

Summary of FY 2001 Facility Guarantee Program (FGP) Activity as of close of business:
April 27, 2001

Country / Commodity (Maximum Credit Period 3/)	Announced Allocations FY 2001	Exporter Applications Received	Balance	Remarks/Additional Information 1/ 2/
	--coverage in millions of dollars--			
Baltic Region Manufactured Goods/Services (5 years)	10.00	0.00	10.00	8/
Caribbean Region Manufactured Goods/Services (5 years)	10.00	0.00	10.00	8/
Central America Region Manufactured Goods/Services (8 years)	30.00	0.00	30.00	8/
Ghana Manufactured Goods/Services (3 years)	10.00	0.00	10.00	8/
Mexico Manufactured Goods/Services (8 years)	50.00	0.00	50.00	8/
South America Region Manufactured Goods/Services (8 years)	20.00	0.00	20.00	8/
Southeast Asia Region Manufactured Goods/Services (8 years)	50.00	0.00	50.00	8/
Southern Africa Region Manufactured Goods/Services (8 years)	10.00	0.00	10.00	8/
Turkey Manufactured Goods/Services (5 years)	5.00	0.00	5.00	8/
Yemen Manufactured Goods/Services (3 years)	0.50	0.00	0.50	8/
TOTAL FOR FGP	195.50	0.00	195.50	
For Comparison Purposes: FY 2000 Payment Guarantee Commitments through April 28, 2000 TOTAL FOR FGP	215.00	4.80	210.20	

TOTAL FOR ALL CCC CREDITS	5,028.50	1,616.77	3,411.73
For Comparison Purposes: FY 2000 Payment Guarantee Commitments through April 28, 2000 TOTAL FOR ALL CCC CREDITS	5,088.00	1,869.45	3,218.55

FY 2001

FOOTNOTES:

1/ These announcement footnotes are indicative only. See actual provisions set forth in Program Announcements. These FAS news releases are available on the internet at http://www.fas.usda.gov or through fax polling. Callers should set their fax machines for polling and dial (202) 720-1728. For additional information, contact the FAS Information Division (202) 720-7115.

2/ Except as noted, the following terms apply:
--Coverage is available on an FAS/FOB basis
--Maximum coverage is 98% of port value for GSM 102/103, SCGP is 65% of port value and FGP is 95% of port value.
--Final registration date for is 9/30/01
--Final export date is 11/30/01

3/ UNLESS OTHERWISE INDICATED, GSM-102 is shown in months, 103 and FGP in years, and SCGP in days
*For SCGP no interest coverage is offered.

4/ Coverage on a C&F basis is available on sales made on C&F or CIF basis.

5/ Commodities as reflected in program announcement PR-0240-00 or as superseded. Credit terms as set forth in country/regional program announcements.

6/ Credit terms for solid wood products, wood pulp and wood chips are offered up to 720 days.

7/ For Breeder Livestock, animal genetics, feeder cattle and poultry breeder stock, coverage is available on C&F basis to point of ocean vessel or international carrier discharge.

8/ For credit periods exceeding 6 months, principal repayments plus accrued interest are due at 6 month intervals.

9/ Products have been determined to be "high value products". See program announcement for details.

10/ Korea(102)--Total authorization was $590.0 million, however, $15.0 million remains unallocated i.e., non-operational.

11/ Mexico(102)-- Total authorization was $1.0 billion, however, $500.0 million remains unallocated i.e., non-operational.

12/ Tunisia(102)-- For the $10.0 million allocation the eligible buyer is National Office of Oil and the eligible bank is Central Bank of Tunisia.

13/ Tunisia(103)-- The eligible bank is Central Bank of Tunisia.

14/ Jordan(102)--For the $40.0 million line of credit the eligible buyer is Ministry of Industry & Trade.

15/ Jordan(103)--The eligible buyer is Ministry of Industry & Trade.

COUNTRIES INCLUDED WITHIN REGIONS

GSM-102/103

BALTIC REGION:	Estonia, Latvia and Lithuania
CENTRAL AMERICA REG:	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
CARIBBEAN REGION:	Barbados, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Lucia, St. Vincen and the Grenadines and Trinidad and Tobago
CENTRAL EUROPE REGION:	Czech Republic, Hungary and Slovakia
CHINA/HONG KONG REG:	China and Hong Kong
EAST AFRICA:	Kenya, Tanzania and Uganda
SOUTH AMERICA REGION:	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru and Venezuela (102)
SOUTH AMERICA REGION:	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru and Venezuela (103)
SOUTHERN AFRICA REG:	Angola, Botswana, Burundi, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Democratic Republic of the Congo (formerly Zaire), Zambia and Zimbabwe
SOUTHEAST ASIA REGION:	Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand and Vietnar
SOUTHEAST EUROPE REG:	Bosnia, Croatia and Slovenia
WEST AFRICA REGION:	Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Cote d'Ivoire, Gabon, Gambia, Ghana, Guinea-Bissau, Guinea, Liberia, Mali, Mauritania Nigeria, Niger, Senegal, Sierra Leone and Togo.

* * * *

SUPPLIER CREDIT GUARANTEE PROGRAM

BALKANS REGION:	Romania and Bulgaria
BALTIC REGION:	Estonia, Latvia and Lithuania
CARIBBEAN REGION:	Barbados, Dominican Republic, Grenada, Jamaica, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago
CENTRAL AMERICA REG:	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
CENTRAL EUROPE REGION:	Czech Republic, Hungary and Slovakia
CHINA/HONG KONG REG:	China and Hong Kong
SOUTH AMERICA REGION:	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador and Peru
SOUTHEAST ASIA REGION:	Indonesia, Malaysia, Philippines, Thailand and Singapore
SOUTHEAST BALKANS REGION:	Romania and Bulgaria
SOUTHEAST EUROPE REG:	Croatia and Slovenia
WEST AFRICA REGION:	Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, Gabon, Gambia, Ghana, Nigeria and Senegal

* * * *

FACILITY GUARANTEE PROGRAM

BALTIC REGION:	Estonia, Latvia and Lithuania
CARIBBEAN REGION:	Jamaica and Trinidad and Tobago
CENTRAL AMERICA REG:	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
SOUTH AMERICA REGION:	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru and Venezuela
SOUTHEAST ASIA REGION:	Indonesia, Malaysia, Philippines, Thailand and Vietnam
SOUTHERN AFRICA REG:	Angola, Botswana, Burundi, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Democratic Republic of the Congo (formerly Zaire), Zambia and Zimbabwe

ECG 04-01

OVERSEAS OFFICES

Question. Provide a list of FAS overseas counselor/attache and trade offices for fiscal year 2000, fiscal year 2001, and proposed for fiscal year 2002. Please show the funding and full-time equivalent staffing levels of each office.

Answer. A list of FAS overseas counselor/attache and trade offices and the amount of funding and full-time equivalent staffing levels is provided.

[The information follows:]

FOREIGN AGRICULTURAL SERVICE OVERSEAS COUNSELOR/ATTACHE AND TRADE OFFICES FUNDING AND STAFF [1] LEVELS—FISCAL YEAR 2002-FISCAL YEAR 2002

[Dollars in thousands]

Foreign Agricultural Affairs	Fiscal year 2000		Fiscal year 2001		Fiscal year 2002	
	Funding	On-board employ.	Funding	On-board employ.	Funding	On-board employ.
WESTERN EUROPE:						
FRANCE	$794	6	$747	6	$794	6
GERMANY	696	6	572	6	592	5
ITALY, EMB.	757	6	671	6	757	6
GREECE	228	2	220	2	228	2
NETHERLANDS	811	5	610	5	811	5
BELGIUM, E	240	1	241	1	240	1
DENMARK	193	3	189	3	193	3
SPAIN	793	6	739	6	793	6
PORTUGAL	155	2	161	2	155	2
UNITED KINGDOM	773	6	721	5	773	6
IRELAND	158	1	141	1	158	1
BELG. USEU	1,416	6	1,136	6	1,416	6
SWITZ, GENEVA.	1,062	4	894	4	1,062	4
ITALY, FODAG	232	1	229	1	232	1
TOTAL	8,308	55	7,271	54	8,204	54
EASTERN EUROPE AND EURASIA:						
AUSTRIA	691	4	672	4	691	5
CZECH REP.	42	1	46	1	42	1
BULGARIA	258	3	323	4	362	4
ROMANIA	42	1	58	1	42	1
PAKISTAN	299	4	304	3	299	4
POLAND	550	4	592	4	654	5
UKRAINE	48	1	59	1	48	2
RUSSIA	950	8	923	9	1,010	8

FOREIGN AGRICULTURAL SERVICE OVERSEAS COUNSELOR/ATTACHE AND TRADE OFFICES FUNDING AND STAFF [1] LEVELS—FISCAL YEAR 2002-FISCAL YEAR 2002—Continued

[Dollars in thousands]

Foreign Agricultural Affairs	Fiscal year 2000		Fiscal year 2001		Fiscal year 2002	
	Funding	On-board employ.	Funding	On-board employ.	Funding	On-board employ.
SWEDEN	367	5	361	4	367	5
TURKEY	493	4	520	4	615	4
TOTAL	3,740	35	3,858	35	4,130	39
WESTERN HEMISPHERE:						
ARGENTINA	757	5	795	5	852	5
BRAZIL	438	4	448	4	498	4
CANADA	488	5	520	4	868	5
CHILE	343	3	340	3	343	3
COLOMBIA	530	4	385	4	630	4
COSTA RICA	402	3	431	3	402	3
DOM. REPUBLIC	471	2	432	2	467	2
GUATEMALA	461	3	459	3	511	3
MEXICO	1,000	9	931	8	1,104	8
PERU	343	4	341	4	343	4
ECUADOR	154	2	140	2	154	2
VENEZUELA	779	5	818	5	675	4
TOTAL	6,166	49	6,040	47	6,847	47
AFRICA AND MIDDLE EAST:						
COTE D'IVOIRE	342	3	334	3	342	3
EGYPT	464	4	376	3	464	4
ISRAEL	158	1	180	1	328	2
SYRIA	54	1	56	1	54	1
KENYA	367	2	357	2	367	2
MOROCCO	261	3	256	3	261	3
ALGERIA	35	0	34	0	35	0
TUNISIA	75	2	70	2	75	2
NIGERIA	439	2	408	2	482	2
SO. AFRICA	695	6	649	6	695	6
TOTAL	2,890	24	2,720	23	3,103	25
ASIA:						
AUSTRALIA	308	3	310	4	308	3
CHINA	952	4	934	4	1,827	5
INDIA	390	7	402	7	505	8
BANGLADESH	45	1	41	1	45	1
INDONESIA	444	5	425	4	444	5
JAPAN	1,431	12	1,539	12	1,431	12
KOREA	610	5	640	5	705	5
MALAYSIA	279	3	276	3	279	3
SINGAPORE	0	0	222	2	222	2
NEW ZEALAND	189	3	185	3	189	3
PHILIPPINES	505	5	508	5	795	6
THAILAND	539	5	527	5	574	5
VIETNAM	351	2	337	2	351	2
TOTAL	6,043	55	6,346	57	7,675	60
TOTAL, FAA	27,147	218	26,235	216	29,959	225
AGRICULTURAL TRADE OFFICES:						
SAO PAULO, Brazil	439	4	462	4	439	4
SHANGHAI, China	497	1	519	1	497	1
GUANGZHOU, China	434	1	471	1	434	1
HAMBURG, Germany	461	3	434	3	461	3

FOREIGN AGRICULTURAL SERVICE OVERSEAS COUNSELOR/ATTACHE AND TRADE OFFICES FUNDING AND STAFF [1] LEVELS—FISCAL YEAR 2002-FISCAL YEAR 2002—Continued

[Dollars in thousands]

Foreign Agricultural Affairs	Fiscal year 2000		Fiscal year 2001		Fiscal year 2002	
	Funding	On-board employ.	Funding	On-board employ.	Funding	On-board employ.
HONG KONG	896	4	858	4	896	4
JAKARTA, Indonesia	293	1	285	1	293	1
TOKYO, Japan	2,050	5	2,122	5	2,050	5
OSAKA, Japan	534	3	637	3	534	3
SEOUL, Korea	1,027	4	1,011	4	1,027	4
MEXICO CITY	1,191	4	1,370	4	1,191	4
MONTERREY, Mexico	.....	.....	.....	.....	400	4
MOSCOW, Russia	323	1	317	1	323	1
RIYADH, Saudi Arabia	257	2	275	2	257	2
SINGAPORE	860	3	0	0	0	0
DUBAI, U.A.E.	390	4	393	4	390	4
CARIBBEAN BASIN, USA	410	3	409	3	410	3
TOTAL, ATO	10,062	43	9,563	40	9,602	44
GRAND TOTAL	37,209	261	35,798	256	39,561	269

[1] Overseas managed on a head count basis, not FTE basis. Total includes FSN's as well as U.S. Foreign Service personnel.

INTERNATIONAL COOPERATIVE ADMINISTRATIVE SUPPORT SERVICES [1]

[Fiscal year 2000–2002]

	Fiscal year 2000	Fiscal year 2001	Fiscal year 2002
Foreign Agricultural Affairs	8,796	8,882	10,362
Agricultural Trade Offices	2,330	2,372	1,741
TOTAL	11,126	11,254	12,103

[1] ICASS and Other Reimbursements to State Department.

PUBLIC LAW 480

Question. Provide a listing of the Public Law 480 funding allocations, by country and commodity, for fiscal year 2000, and for fiscal year 2001 to date.

Answer. [The information follows. Allocations for fiscal year 2001 are as of March 6, 2001.]

[CLERK'S NOTE.—Tables I–IV—Planned U.S. Food Aid for Fiscal Year 2001 can be found in Subcommittee files.]

FOREIGN MARKET DEVELOPMENT (FMD) COOPERATOR PROGRAM

Question. Provide a breakdown of how FMD Cooperator Program funds were allocated in each of fiscal years 2000 and 2001 to date.

Answer. The information is provided for the record.

[The information follows:]

Organization	Fiscal year 2000 budget	Fiscal year 2001 budget
American Forest and Paper Association	$2,851,287	$2,962,771
American Peanut Council	561,945	558,944
American Seafood Institute	80,069	55,611
American Seed Trade Association	272,163	274,889
American Sheep Industry Association	167,537	169,639
American Soybean Association	7,081,782	7,400,417
California Agricultural Export Council	11,269	11,403
Cotton Council International	1,953,000	2,087,397

Organization	Fiscal year 2000 budget	Fiscal year 2001 budget
Leather Industries of America	198,069	199,000
Mohair Council of America	26,129	26,183
National Cottonseed Products Association	140,374	120,558
National Dry Bean Council	122,103	122,218
National Hay Association	55,345	40,218
National Renderers Association	1,009,044	998,170
National Sunflower Association	265,871	265,475
North American Millers Association	81,528	70,368
USA Dry Pea and Lentil Council	187,890	187,738
USA Poultry and Egg Export Council	1,512,990	1,495,170
USA Rice Federation	1,739,535	1,687,806
U.S. Dairy Export Council	708,348	808,916
U.S. Grains Council	5,709,387	5,559,188
U.S. Hide, Skin and Leather	85,759	85,000
U.S. Livestock Genetics Export Inc.	801,336	741,718
U.S. Meat Export Federation	1,528,287	1,455,832
U.S. Wheat Associates	6,394,954	6,161,370

CATFISH IMPORTS

Question. The U.S. catfish industry has had an analysis done of the economic indicators of injury due to imports of frozen catfish fillets from Vietnam. The analysis concluded that data suggests that imports of frozen catfish fillets from Vietnam have both displaced significant volumes of U.S. produced frozen catfish fillets and kept U.S. producers' prices suppressed. This has affected the earnings and business prospects of U.S. catfish farmers and processors. The industry has been advised that an antidumping (Section 731) petition should be filed against imports of frozen catfish from Vietnam.

How can the Department best help the catfish industry to publicize its concern over the injury being inflicted by the imports from Vietnam and its desire for active consideration of an antidumping petition?

Answer. The Department is aware of the concerns of the catfish industry and believes that a greater understanding of the various competitive factors involved best serves as a platform for future action should that be deemed the appropriate response. USDA is working with an interagency working group, under USTR, to discuss and analyze various issues and options pertaining to the catfish industry's concerns about increasing imports from Vietnam. In part due to the U.S. industry's concerns and issues raised under the catfish interagency working group, the U.S. Food and Drug Administration has issued an import alert requiring that catfish from Vietnam be labeled with its common or usual name, not simply "catfish." This FDA alert was issued in response to Vietnamese exports being mislabeled as "catfish" even though U.S. common or usual name requirements do not permit that name for the Vietnamese species. We are hopeful that the recent FDA import alert has been effective and will eliminate the need for further actions. Other possible trade remedies might include: Requesting the U.S. International Trade Commission to conduct a Section 332 fact-finding investigation; filing an antidumping investigation; or filing a Section 406 non-market safeguard investigation.

QUESTIONS SUBMITTED BY SENATOR ARLEN SPECTER

BYRD AMENDMENT ON DUMPING

Question. The fiscal year 2001 Agriculture Appropriations bill included financial assistance to industries which are the victims of continued dumping and subsidization by our nation's trade partners. It required that antidumping and countervailing duties collected by U.S. Customs be set aside for grants to U.S. producers for certain purposes, including research and development, equipment, and health care and pension benefits. This legislation was expected to alleviate some of the hemorrhaging taking place in the agriculture industry, without modifying the circumstances in which antidumping or countervailing duties may be imposed or the amount of such duties.

What actions are the Administration taking to return antidumping and countervailing duties collected under this legislation to petitioners in the agriculture industry who sought relief from continued dumping and subsidization?

Answer. The U.S. Customs Service in the Treasury Department is responsible for implementation of the Byrd amendment. We understand that it is presently completing draft implementing regulations that will be reviewed by the Treasury Department and will then be made available for public comment.

Question. Concerns have been raised that our competitors in the World Trade Organization intend to challenge this legislation since they allege it is inconsistent with the principles of the General Agreement on Tariff and Trade of 1994 (GATT). In response to these concerns, I sent a letter, along with 13 of my colleagues, to President Bush urging the Administration to support this legislation on February 14, 2001. Are these concerns valid and what actions are the Administration taking to support this measure?

Answer. We believe the Byrd amendment is fully consistent with our international obligations. If a challenge is brought, the U.S. government will vigorously defend the law. So far, there have been no requests for formation of a WTO dispute settlement panel.

QUESTIONS SUBMITTED BY SENATOR HERB KOHL

DAIRY EXPORT INCENTIVE PROGRAM (DEIP)

Question. The President's budget provides for a slight increase in the Dairy Export Incentive Program from the previous year. However, it is my understanding there are approximately 40,000 tons of nonfat dry milk awards that had been allocated under DEIP, but for some reason were never shipped. Although industry requests had been made for this tonnage to be reallocated, the previous Administration had taken the position that a reallocation would be in violation of the United States WTO commitments. Further, since the Article 9 "rollover" authority expired on June 30, 2000, these unshipped quantities cannot be made available under DEIP.

Is Article 9 "rollover" authority expressly tied to previously allocated but unshipped tonnage in addition to previously unallocated tonnage?

Answer. Based on the U.S. methodology for reporting on export subsidy reduction commitments, the rollover authority applies only to previously unallocated tonnage. The U.S. has already used the maximum flexibility allowable under Article 9 "rollover" for nonfat dry milk by bringing forward DEIP allocations un-awarded in previous years prior to the June 30, 2000, expiration of that provision.

Question. Does the current Administration take the view that a reallocation of unshipped tonnage under DEIP would be a violation of our World Trade Organization (WTO) commitments and if so, what action will USDA take to better ensure that all allocations are actually shipped?

Answer. Authorizing the export of awarded but unshipped dairy product tonnage would be inconsistent with the established U.S. methodology for reporting export subsidies to the WTO and would likely be viewed by our trading partners as an attempt to circumvent our subsidy reduction commitments. We are now engaged in negotiations in the WTO to further liberalize trade in agricultural products, including the elimination of export subsidies. Taking steps that would be viewed by many as a circumvention of our current export subsidy commitments would be detrimental to our efforts in those negotiations. The Department is reviewing whether re-announcement of canceled tonnage within the confines of an allocation year can be accomplished. If it is decided to modify the DEIP operations to allow for this, it is expected that this action would alleviate the majority of any problems with unshipped tonnage.

INTERNATIONAL TRADE/MPC

Question. I appreciate your statements on the importance of trade to the agriculture sector and I agree that we must stay vigilant to protect our place in those markets. However, we must be careful not to rely too heavily on exports, as we learned in recent years following the Asian economic collapse. U.S. agriculture must not be left to the fragile whims of foreign economies. One trade issue that currently faces the dairy industry is the dramatic increase in Milk Protein Concentrate (MPC) imports.

To what extent are Milk Protein Concentrates (MPCs) displacing U.S. dairy products in domestic markets?

Answer. We have no hard quantitative data as to what products are manufactured using imported MPCs. A GAO study suggested a rather wide range of prod-

ucts with the higher protein MPCs directed towards health and nutrition foods. Having said that, it is our understanding that imported MPCs primarily substitute for nonfat dry milk (NDM) as a source of protein in beverage and food processing uses. MPC imports would, therefore, to some extent displace NDM. However, currently and in recent years, the CCC purchase price places a floor under domestic NDM prices. Therefore, we believe imported MPCs have little if any effect on U.S. dairy producer prices at present.

Question. Does USDA take the position that MPCs are subject to review under the WTO and if not, will USDA take actions to ensure that they become subject to such review.

Answer. Milk Protein Concentrates are subject to a U.S. tariff commitment in the WTO to limit the import duty to 0.37 cents per kilogram. At the time of the Uruguay Round, this product was specifically provided for in our tariff schedule and was not subject to any import quotas of the type that were converted to tariff rate quotas (TRQs) under that agreement. Consequently, MPCs were not included in our dairy TRQs. The United States expects other countries to adhere to their international market access commitments just as other countries expect the United States to comply with our commitments. Changes in these commitments would require agreement with affected countries on compensation. Consequently, changes to these international obligations must be considered carefully, within the context of our overall World Trade Organization commitments.

Question. If the Bush Administration is not willing to take a strong stand to stop MPCs, which can devastate the U.S. dairy economy, what signals does that send to our trading partners about our willingness to stand firm in the interest of U.S. agriculture?

Answer. As we have indicated, MPC imports have not been limited by quota and, therefore, could not have been included in our dairy TRQs when these were created during Uruguay Round negotiations. Revising commitments such as these require the agreement of our trading partners, generally through a process of consultation and negotiation. We will continue to stoutly defend the interests of U.S. agriculture in international negotiations. By adhering to our own commitments, we signal to our trading partners our firm expectation that they also abide by the commitments they have made with us.

EMERGENCY FARM ASSISTANCE

Question. Mr. Shipman, you mention that the fiscal year 2002 budget includes $5.6 billion for natural emergencies and an additional amount totaling $1 trillion over the next ten years for other unforeseen needs. It is my understanding that the $5.6 billion would be to cover all emergency responses, government-wide.

What mechanism is in place to determine how much of the $5.6 billion would be allocated to agricultural related losses? Would assistance have to be delayed until the end of fiscal year 2002 before any allocations could be made?

Answer. The $5.6 billion National Emergency Reserve would provide for additional needs arising from major disasters above and beyond normal and average needs. Through disaster related programs such as USDA's fire fighting program and FEMA's disaster assistance, the budget provides for average funding needs related to disasters. The allocation of funds from the Emergency Reserve would be proposed by the President and acted upon by the Congress. USDA would monitor disaster related conditions and needs related to its programs to assure timely assistance, and work with the Administration and Congress to expedite assistance from the National Emergency Reserve.

Question. What if natural disaster losses far exceed $5.6 billion? How much of the $1 trillion could be made available immediately?

Answer. In addition to the National Emergency Reserve, the President's Budget provides an additional amount totaling $1 trillion over the next ten years for a contingency reserve to allow for unanticipated priority spending needs, including emergency farm economic and disaster assistance. USDA would continue to work closely with the Administration and Congress to expedite assistance in the event that natural disaster losses exceed $5.6 billion.

Question. How does USDA suggest that farm market loss assistance, if necessary, be allocated, especially for commodities that are not normally associated with ongoing USDA farm programs? Would you support assistance through some counter-cyclical formula, or would you prefer "freedom-to-farm" style payments that are not necessarily tied to actual need?

Answer. In terms of emergency assistance to be provided before a new farm bill is developed and put in place, we believe it will be necessary to assess the needs for assistance as they emerge and to balance that against the time available and

to take into consideration administrative feasibility. Market loss assistance for the major program crops has been provided utilizing the production flexibility contract formula the past 3 years. This procedure can be utilized by the Department to deliver market loss assistance in a very timely way on short notice without the need for a time consuming and burdensome signup process. However, as you note, this approach does not efficiently target producers of other commodities when there may be special needs. For the longer term, we would like to work with Congress in developing a new Farm Bill which will provide an adequate safety net so that ad hoc emergency market loss assistance would not be necessary. In terms of the objectives served by market loss assistance, some form of counter-cyclical support, whether it be based on the marketing assistance loan program and/or other formula, should probably be considered as a component of the safety net along with de-coupled payments along the lines of the current program. We will be reviewing approaches for consideration in the coming weeks and look forward to further discussions with Congress during the Farm Bill process.

Question. How would USDA respond to emergency needs that require a response this fiscal year?

Answer. As we discussed in the previous question, the short time available to provide any assistance during the fiscal year, would dictate a careful look at administrative feasibility as a limiting factor on the type of assistance that could be delivered this year if the need arises.

FOOT AND MOUTH DISEASE

When Secretary Veneman testified before us last week, I reminded her of the special importance of preventing an outbreak of Foot and Mouth Disease (or other serious animal disease) to a State like Wisconsin where the dairy industry, and it associated reliance on animal health, is so important to the State and regional economy. Since our hearing last week, Secretary Veneman has suggested that if an outbreak were to occur in this country, that USDA would provide compensation.

Question. In what form might that compensation take shape, and further, in a State like Wisconsin, would that compensation also cover losses such as dairy production losses that would be in addition to the actual loss of the dairy herd?

Answer. USDA has developed a compensation policy with the Office of Management and Budget and with input from other interested parties. The goal of this policy is to ensure that an outbreak is located and diseased or exposed animals are destroyed as soon as possible. For that, we need the full cooperation of all producers. For animals depopulated to eradicate a disease, USDA has traditionally paid an indemnity approximating the fair market value of the animals. We intend to provide compensation for the fair market value of animals depopulated due to FMD, possibly including other specific direct costs incurred by producers. We will provide more comprehensive information on our compensation policy in the near future.

GLOBAL SCHOOL FEEDING PROGRAM

Question. Former Senators George McGovern and Bob Dole have been actively supporting a Global School Feeding Program as an important step to improve nutrition, education, and ultimately, life in underdeveloped parts of the world. This year, USDA is providing $300 million for the Global Food for Education Initiative, consistent with the vision of Senators McGovern and Dole.

Does the Bush Administration continue to support this effort?

Answer. The Department is in the process of implementing the pilot program. Decisions about further programming will depend on an evaluation of the success of the pilot in meeting its stated objectives.

Question. Does USDA have authorization to continue the activity begun under the previous Administration in the absence of Congressional action?

Answer. The Department is carrying out the pilot program under the authority of section 416(b) of the Agricultural Act of 1949. Section 416(b) is permanent authority which permits the Secretary of Agriculture to make available CCC-owned commodities for donation overseas.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

EXPORT CREDIT GUARANTEES

Question. I wrote Secretary Veneman and Secretary O'Neill last month expressing my concern about the apparent readiness of the U.S. to accede to a proposal in the OECD to scale back substantially our GSM export credit guarantee programs. The OECD proposal would essentially eliminate the long-term GSM–103 program, cut

roughly in half the time allowed for repayment of other GSM credit and increase premiums and fees for GSM credit guarantees.

The GSM export credit guarantee programs are a critically important part of our nation's efforts to facilitate agricultural exports. For fiscal 2000, the GSM programs supported $3.8 billion in export credit, but the actual Federal outlays were only a fraction of that amount at $200 million. In addition, the U.S. spent about $200 million overall on the Market Access Program, the Foreign Market Development Program, the Export Enhancement Program and the Dairy Export Incentive Program.

By contrast, the EU alone spends about $6 billion a year on direct export subsidies, and foreign governments spend some $230 million a year on market promotion—not counting various other export subsidizing policies. So I am very concerned that we not give up what is really our only export supporting program of any magnitude without getting concessions from the EU on export subsidies and from other countries on government trading enterprises.

What can you tell me about the status of these negotiations and whether the U.S. is still prepared to accept the Organization for Economic Cooperation and Development (OECD) proposal?

Answer. The United States and all other participants to these negotiations, except Canada, have accepted the draft proposal. Because the Canadians have not yet conveyed their intention to accept or reject the proposal, discussions in the OECD have not been concluded. We are very aware of the concerns expressed by members of Congress on this matter. We are also aware that most sectors of U.S. agriculture who currently benefit from the GSM program support our acceptance of the current proposal under discussion in the OECD. Our common goal, shared with both Congress and the agricultural community, is to assure the continuation of these GSM programs and maximize their benefit to U.S. agriculture. The U.S. Government has made clear that we will not accept any further changes in the draft proposal.

CONSERVATION RESERVE PROGRAM TECHNICAL ASSISTANCE

Question. The fiscal year 2002 Budget request contains a provision that would direct the NRCS to provide technical assistance for the Conservation Reserve Program (CRP), a conservation program funded by the Commodity Credit Corporation (CCC), out of its Conservation Operations Account, instead of receiving reimbursement from the CCC. I am concerned about this change. I fear that this dangerous approach to funding conservation technical assistance would force NRCS to redirect staff to those areas of the country that have the most CRP participation at the cost of other programs. Moreover, this policy may leave some counties in the U.S. without a basic program of conservation assistance; leave many farmers and ranchers without a source of assistance to help with nutrient management planning, soil erosion assistance, and water quality issues, which have been the cornerstone of conservation on private lands; and seriously impact the ability of the agency to respond with disaster assistance in the Emergency Watershed Program.

Has the Department considered the consequences and long-term implications of funding Farm Bill program implementation with Conservation Operations funding?

Answer. Under current law, the Conservation Reserve Program is authorized through calendar year 2002. Commodity Credit Corporation funds to reimburse NRCS for costs of providing technical assistance in support of the CRP are subject to the Section 11 cap on reimbursements to State and Federal government agencies. There is not sufficient funding within the cap to cover the CRP technical assistance costs estimated to be incurred by NRCS. The proposal to use Conservation Operations funding for CRP technical assistance reflects a request for funding that the Congress has appropriated in recent years through emergency funding in order to prevent any disruption of CRP activities. The Department will consider a longer term solution as we develop proposals for the new Farm Bill.

Question. Has the Department consulted with its own General Counsel on whether NRCS has legislative authority under Conservation Operations to perform work on the CRP?

Answer. Yes, the Department's General Counsel has been consulted on the proposed language change for the Conservation Operations account.

FOREIGN MARKET DEVELOPMENT COOPERATOR PROGRAM

Question. Competitors of the United States in agricultural exports are shifting more resources into market development activities because they are "green box" programs under the WTO rules. The EU has increased market development 21 percent and the Cairns Group 110 percent between 1995 and 1998.

For fiscal 2002, the President's budget the Cooperator Program would allocate $27.5 million, which is $6 million below the current marketing plan level of $33.5

million. (For every Federal dollar the cooperators receive from the Federal government, producers match $1.30 through checkoff and other funds.)

How can U.S. farmers hope to compete in international markets when they are provided less resources for market development than farmers in other countries, and even less than the U.S. provided last year?

Answer. There are many policy and macroeconomic factors that affect our producers' ability to compete in international markets. However, as agricultural systems become more global in scope and more responsive to market forces, the role of market development is expected to grow since it stimulates foreign demand and differentiates U.S. products from those of our competitors. With 96 percent of the world's population outside the United States, stimulating that demand is a major challenge but one that can pay big dividends to producers in the form of higher exports and increased farm income.

Our competitors and their producer groups have already recognized this. We estimate they have collectively increased their market development commitment by 50 percent since the Uruguay Round (1995) to over $1 billion a year. In contrast, the total U.S. market development commitment has grown by only a fraction since 1995. As a result, the market development "investment" gap is growing which concerns us greatly due to its implications for long term competitiveness.

In response to this investment gap, USDA has encouraged U.S. producer groups that participate in its main market development programs—the Market Access Program (MAP) and the Foreign Market Development program (FMD)—to increase their financial commitment to this effort. Those that do are rewarded through the MAP and FMD program allocation processes. The response by program participants has been impressive, especially in light of the difficult financial situation many U.S. producers find themselves. For MAP, U.S. industry contributions rose to a record 95 percent of U.S. government funding in 2000 (or 95 cents of industry funds for every dollar in U.S. government funds)—up from just 30 percent in 1992. For the FMD program, industry contributions stand at a near record 130 percent, up from 75 percent in 1992. Statistics like these demonstrate producers' commitment to market development and their willingness to share in its cost.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

FOOD AID

Question. Secretary Veneman has stated: "The budget includes a commitment to take a further look at the USDA's foreign food assistance programs to be sure they are effective in achieving their objectives. The study has not yet been designed . . . we want to ensure that these programs significantly benefit farmers, target necessary humanitarian feeding needs and avoid adverse commercial impacts."

Family farmers produce a safe and abundant food supply for this country and the world and then are told by the marketplace that it is of little value. At the same time, hundreds of millions of people around the world still go to bed hungry every night. I think this disconnect is atrocious, and have always been a strong advocate of this nation's food assistance programs. I am all for improving our food assistance programs.

Could you explain further the goals of the Administration's proposed study of the Foreign Food Assistance programs?

Answer. The goals that have been identified to date include an evaluation of the continued effectiveness of U.S. food assistance programs. The study will look at program structures and effectiveness, administrative structure, and the decision-making processes.

SURPLUS COMMODITY PROGRAM 416(B) AND PUBLIC LAW 480

The U.S. continues to hold grain and soybean carry over stocks at record high levels and farm-gate prices are at historic lows. This situation continues to destabilize the U.S. agricultural economy.

The Administration's budget estimates 2001 expenditures for Public Law 480 to be $1.107 billion. 2000 expenditures were $1.293 billion. Section 416(b) cannot be relied upon to make up the difference since, as the budget states, the types and levels of commodities vary year-to-year and often are not available at all from the CCC inventory. Yet, the Administration is suggesting a cut of $112 million for the Public Law 480 account from 2001 estimates and $298 million from actual 2000 expenditures.

Question. How will the U.S. maintain its commitments and be prepared to meet emergency needs without maintaining a level of funding equal to previous years?

Answer. One of the objectives of the fiscal year 2002 budget set by the President is to slow the growth of Federal spending. Accordingly, some programs are proposed to be continued at current funding levels. The Public Law 480 foreign food assistance programs have proposed budget authority at the same level provided by Congress in fiscal year 2001. Our ability to provide donations of food commodities under the authority of Section 416(b) in fiscal year 2002 will be determined in large part by the availability of domestic commodity surpluses. The domestic supply situation will not be known until the fall, and at that point the Administration can be expected to make a decision on the level and extent of section 416(b) donations in 2002.

QUESTION SUBMITTED TO THE AGRICULTURAL MARKETING SERVICE

QUESTION SUBMITTED BY SENATOR TIM JOHNSON

LAMB MEAT ADJUSTMENT ASSISTANCE PROGRAM

Question. The most common question on the lamb meat adjustment assistance program I receive from SD sheep producers is whether USDA make any adjustments to the year two or three programs for feeder and slaughter lambs, suggesting that the standards for the slaughter lamb quality should be expanded to include a wider range of lamb carcasses including yield grade 3 lambs with the current standard of yield grade 2 lambs only. The average qualifying percentage of lamb so far is less than 30 percent.

Do you have any thoughts on this?

Answer. There will most likely be no change in the standards to include yield grade 3 lambs in the year three programs for feeder and slaughter lambs. The purpose of the program was to design assistance measures to help the industry improve its competitiveness and to facilitate efforts to adjust import competition as outlined in the petition filed before the U.S. International Trade Commission (USITC). Thus, payments must continue to be limited to yield grade 2 if they are to serve as an incentive for the production of higher quality, more competitive lambs. Year three payments may be incorporated, if necessary, to assure that the program does not over-spend the funds allocated.

QUESTIONS SUBMITTED TO THE CHIEF ECONOMIST

QUESTIONS SUBMITTED BY SENATOR HERB KOHL

DAIRY POLICY

Question. United States daily policy continues to include features that are particularly harmful to the Upper Midwest, which is one of the primary dairy production areas in the country. One component of this flawed policy is the introduction of regional dairy compacts such as the one currently in place in the Northeast. To make matters worse, the House of Representatives just this week introduced legislation to expand dairy compacts to other States.

President Bush wants to establish the "Free Trade Area of the Americas" which would be a comprehensive free trade agreement between the 34 democracies in the Western Hemisphere. We have all heard the speeches and we have all seen the photo opportunities. I strongly suggest that before President Bush seeks free trade among 34 countries, he guarantees free trade among the 50 United States. We should support free trade at home just as strenuously as we do internationally.

Last year, Congress again provided financial assistance to dairy producers suffering from historical low market prices. While prices have rebounded somewhat, they are still far below the costs of production and Wisconsin continues daily to lose dairy farmers.

Does the Bush Administration believe that it is important to move agricultural products freely throughout the United States?

Answer. The Bush Administration firmly believes that agricultural products should move freely throughout the United States and throughout the world, and the Administration is fully committed to enforce all existing laws pertaining to the movement of agricultural products in interstate commerce. I would note that no court has found the Northeast Interstate Dairy Compact to be in violation of any State or Federal law.

Question. Please provide your thoughts on the best way to achieve a national dairy policy that treats all producers fairly and meaningfully, that does not send improper market signals, and that minimizes the different treatment of producers who operate in different regions of the country.

Answer. There is no question that dairy policy has been extremely controversial, with many producers feeling that they are being disadvantaged by the current system. In addition, some milk processors believe the current system does not meet their needs. Over the next few months, the Administration will develop its recommendations for the 2002 Farm Bill. In that process, we will actively seek out the advise and counsel for the Congress and the dairy industry and make a concerted effort to reach a consensus on dairy policy.

Question. Would you please comment on S. 294, the legislation I introduced along with Senator Santorium to establish a counter-cyclical national dairy program?

Answer. Many farm groups have proposed establishing counter-cyclical programs in which farm program payments would vary inversely with the level of market prices. In some instances, the proposed programs would increase considerably farm program outlays. Furthermore, the amount of aid provided to producers under these proposed programs and other programs that would continue could exceed our current World Trade Organization (WTO) commitment on production distorting support, which would likely decline under a new trade agreement. These are vitally important considerations that go beyond dairy policy, but encompass all aspects of farm policy. The Bush Administration is committed to developing a 2002 Farm Bill proposal that meets the needs of all producers but also meets spending targets and is consistent with current WTO obligations and the Administration's proposal for future trade reforms.

The Administration does not support S. 294, as drafted, for the following reasons. First, the bill would provide payments to producers to compensate for low milk prices in fiscal year 2000. These payments would be in addition to emergency assistance already provided by Congress to compensate for low milk prices in 2000 in the fiscal year 2001 Agriculture and Related Agencies Appropriations bill. Second, S. 294 triggers payments on all of a producer's milk production, not to exceed 26,000 hundredweight, based on the Class III milk price for the previous year. While the Class III price may be low, the prices of other classes of milk may not. Thus, the triggered payments may not be commensurate with the level of income producers receive from the marketplace. Lastly, the Administration has several concerns regarding the supply management provision of the bill in which producers may receive a bonus payment if they do not increase production from the previous year.

QUESTION SUBMITTED TO THE RISK MANAGEMENT AGENCY

QUESTION SUBMITTED BY SENATOR BRYON L. DORGAN

CROP INSURANCE COVERAGE OF UNHARVESTED SUNFLOWERS AND CORN IN NORTH DAKOTA

Question. Wet weather starting with rain the last week in October and ending with November snowfalls caused over 100,000 acres of sunflowers and corn to be left in ND fields as of November 30, 2000 and December 10, 2000. These are the respective dates harvest is to be completed in the Crop Insurance contracts. Despite an agreement I reached with the Risk Management Agency early last January, some farmers have had the appraised amount of the crop left in the fields charged towards their insurance coverage.

Six weeks of rain and snow at the end of the sunflower and corn harvest prevented the completion of harvest. This weather occurred during the insurance period—and should have been cause for leniency when considering losses. Many fields contained enough crop so there wasn't any payment of indemnity based on a November 30 or December 10 adjustment. The contract was closed out, and, in some cases the crop has been lost. The end result is the same as if a hail storm had wiped the crop out during the summer. Some harvesting did take place after the Contract Harvest Date and was an indication that farmers were interested in getting the crop—not collecting the insurance. Farmers who bought crop insurance in good faith deserve coverage on this lost production. Procedure does exist in RMA rules to extend coverage on a case by case basis—and would have been a safeguard against fraud or abuse. This insurance is too costly to have coverage denied when the bad weather that prevented harvest occurred during the insurance period and the end result was that some of the crop was ultimately lost this spring. Enclosed are pictures of one

of the corn fields in question under water this spring. (Note: RMA did not receive the picture.)

Can you assure me that the RMA will look into this and resolve this issue fairly? Don't you think a farmer who has tried to harvest his crop—but has been prevented from doing so by six weeks of rain and snow—ought to receive full crop insurance if the crop is ultimately lost?

Answer. Senator, RMA appreciates that some farmers were adversely impacted by bad weather at the end of last year and that some producers were unable to harvest their crops by the "end of the insurance period" which is stated in their crop insurance policy. Because of the questions you raised on this issue RMA has been reviewing our policies and procedures to ensure that producers are treated fairly in these cases. However, insurance contracts are between insurance companies and farmers, not RMA and it is the responsibility of the companies to ascertain the individual facts for each producer and apply the policy provisions correctly and consistently.

RMA did issue additional guidance for the 2000 crop year as a result of your inquiries that gave companies sufficient flexibility to address the late season weather conditions, while taking into account each producer's situation on a case by case basis. Insurance companies have a responsibility to determine if any losses were caused by an insured peril or if the delays in harvesting were due to other uninsurable circumstances. In discussions with the companies, the issue of program integrity was raised regarding individual producers that had been identified as having a problem with a late season harvest. RMA knows that you fully support the emphasis on contract compliance in order to safeguard the program for those farmers who have legitimate insurable losses.

RMA understands that the insurance companies have resolved this matter with most of the farmers affected by the late season weather conditions. However, there remain a few farmers for which this issue has not been fully resolved. RMA will continue to monitor this issue and will review the facts of any individual producer's specific claim to ensure that the policy was correctly administered by the insurance provider.

SUBCOMMITTEE RECESS

Senator COCHRAN. Our next hearing is scheduled for Thursday, May 10, at 10 o'clock in the morning in this room, 138, the Dirksen Senate Office Building. At that time we will hear from witnesses from the Department of Health and Human Services on the President's budget request for the Food and Drug Administration.

Until then, the subcommittee stands in recess.

[Whereupon, at 11:37 a.m., Thursday, May 3, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 10.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

THURSDAY, MAY 10, 2001

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:05 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Bond, and Johnson.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOOD AND DRUG ADMINISTRATION

STATEMENT OF BERNARD SCHWETZ, D.V.M., Ph.D., ACTING PRINCIPAL DEPUTY COMMISSIONER

ACCOMPANIED BY:

DR. LINDA SUYDAM, SENIOR ASSOCIATE COMMISSIONER
JEFFREY WEBER, ACTING SENIOR ASSOCIATE COMMISSIONER FOR MANAGEMENT AND SYSTEMS
KERRY WEEMS, ACTING DEPUTY ASSISTANT SECRETARY FOR BUDGET, DEPARTMENT OF HEALTH AND HUMAN SERVICES
JANET WOODCOCK, M.D., DIRECTOR, CENTER FOR DRUG EVALUATION AND RESEARCH
STEPHEN SUNDLOF, D.V.M., Ph.D., DIRECTOR, CENTER FOR VETERINARY MEDICINE
KATHRYN ZOON, Ph.D., DIRECTOR, CENTER FOR BIOLOGICS
JOSEPH A. LEVITT, CENTER FOR FOOD SAFETY AND APPLIED NUTRITION

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. The subcommittee will please come to order.

Today I am pleased to convene a meeting of our subcommittee to continue our hearings on the fiscal year 2002 budget submitted by the President for Agriculture, Rural Development, and Related Agencies. This morning we are pleased to welcome witnesses from the Food and Drug Administration in the Department of Health and Human Services to present the portion of the budget that relates to the activities under the jurisdiction of the Food and Drug Administration.

This morning specifically we welcome the Acting Principal Deputy Commissioner of FDA, Dr. Bernard Schwetz. He is accompanied by Linda Suydam, Senior Associate Commissioner of the FDA; Jeffrey Weber, FDA's Acting Senior Associate Commissioner

for Management and Systems; and Kerry Weems, Acting Deputy Assistant Secretary for Budget of the Department of Health and Human Services.

The committee is well aware of the Food and Drug Administration's achievements and challenges. Not only must the agency ensure that life-saving and other beneficial products and devices are brought to the market as quickly as possible, but it must also protect the public's health and safety by making sure these products are safe and effective. Its responsibility extends from foods to medical devices to animal drugs and blood products. FDA not only regulates domestic products, but must ensure that imports of these same products are equally safe and effective for the public use. It is a very challenging task, even more so because of a marketplace, which is not only growing rapidly, but becoming increasingly sophisticated and complex.

We appreciate the attendance of other Senators this morning. I am going to recognize them for any opening statements that they might wish to make at this point, and then we will invite our witnesses to summarize their written testimony, which will be made a part of the record in full.

Senator Bond.

STATEMENT OF SENATOR CHRISTOPHER S. BOND

Senator BOND. Thank you very much, Mr. Chairman. I join with you in welcoming Dr. Schwetz and colleagues and say, as I think you and all Americans would express, how much we appreciate the tremendous work that the FDA does day in, day out, year in, and year out to ensure that we have the safest food supply, the safest medical systems in the world. We have the right, I believe, to take pride in what you are doing, and we want to ensure that we provide you the resources to continue your good work to ensure the highest standards of safety.

I have a particular interest in one area. I notice on page 2 of your testimony submitted for the record, Dr. Schwetz, you point out the work you are doing with bioengineering of plants and animals. Plant biotechnology is something that has tremendous potential for the future. I have talked to scientists who tell me that really this is perhaps the third technological revolution after the Industrial Revolution, the Information Technology Revolution. We have the opportunity to make significant strides in improving human nutrition, limiting impacts on the environment and the use of harsh chemicals, and ensuring that we deliver, perhaps even through nutraceuticals, the kinds of vaccines and other treatments that are needed particularly throughout the third world.

At the same time, we have seen, beginning in Europe and spreading somewhat into this country, an hysterical attack by what I would call, in some instances, modern day Luddites, in other instances, simply farmers in other countries who do not want to see our farmers continue to maintain and build on the technological edge they have in producing food more efficiently and more nutritiously. In this country, there are those who represent competing food groups who are financing this hysteria, plus the usual group of suspects who are simply out making money off of spreading false information.

But you have taken a strong stand with respect to the testing and the regulation of biotechnology, assuring that science and not politics leads the way. If you find something that does have an allergen or if you find a problem with it, we need to know. We want to make sure that product does not reach the market or does not reach the market without adequate labels or whatever protections you think are important. You have to answer the fundamental question: Is it safe or is it not safe and under what conditions? I think that your continued working doing that and using the very best science available is extremely important to our scientific advances and to continuing to improve the human condition throughout the world.

I predict some day, when the benefits of this technology emerge very clearly on behalf of human health and the environment, we will have to send out a search party to try to find members of the nay-sayer community who have been so vociferous in opposing this because they do not understand it. I do not understand it, but I know what it can do. And I depend upon you to make sure that what it does is healthy. I commend you for it. It is vitally important.

GENERIC ANIMAL DRUG PRODUCER

I will have some very specific questions to submit on behalf of the record, Mr. Chairman, if you do not mind.

But I do have to raise one particular matter that I wish you would look into that is very serious in my State. It relates to the regulation of a particular generic animal drug producer in Missouri called Phoenix Scientific. I do not expect you to comment on it, and I know this is a regulatory matter, but I am hearing from a desperate company that is about to go out of business because of regulations. If there is something wrong, they need to know. If it is excessive regulatory inquiry, that is something that you need to look at, I think, from the headquarters.

I have no way of knowing, without all the facts of the matter, what the problems are, but I do know that the company reports to have had no lawsuits, no recalls, no accidents, no animal deaths, no negative tests on sanitary conditions, no previous enforcement actions against it. And as we hear from veterinarians in the area of northwest Missouri they serve, they say they get fine products and they do not know why they cannot get them.

The company is desperate. They have hired regulatory consultants. They are bombarding me. Their workers are calling us saying, we are about to lose our jobs. This company is the sole producer of products that livestock people use, and veterinarians tell me they cannot get the product anymore.

If there is a legitimate problem, it is hard to imagine why it has taken 2 years of regulatory investigation not to come up with a specific answer or a clear-cut series of directions as to what they must do to resolve them. According to what they tell us, the regulators have not even outlined the changes the company needs to make to be deemed in compliance.

Now, I know that the Kansas City district has had a dramatic increase in enforcement actions overall in the last year relative to the previous 10. I do not know whether that would indicate you

were not doing an adequate job for the previous 10 years or if they are overdoing it now, but months and months have passed with no resolution. The company obviously has an incentive to fix the problems that are preventing them from producing and selling and earning the money they need to pay the wages. The company is losing money. Farmers soon will be without the products. The employees are concerned.

I would just ask that you take a top level look at this to find out if there are problems that need to be resolved, then lay them out and let them know what needs to be done to make sure that they meet their legal obligations to ensure animal safety. But also, I ask that you ensure that the inspectors conduct their responsibilities in a fair, impartial and expeditious manner.

I apologize for having to take up the time of the committee, but it is a serious question. And I thank the chairman.

Senator COCHRAN. Thank you, Senator.

Senator Johnson.

STATEMENT OF SENATOR TIM JOHNSON

Senator JOHNSON. Well, thank you, Mr. Chairman. I will submit a full statement for the record.

I would like to just comment briefly here this morning at the outset.

First, I welcome obviously Dr. Schwetz, as well as the other members of the panel, as well as Dr. Sundlof, who I had an opportunity to meet with earlier in my office this past week or so.

My primary concerns on the hearing today revolve around the Office of Generic Drugs at the FDA, as well as the Center for Veterinary Medicine. About a month ago, I met with Dr. Sundlof to discuss FDA actions to prevent BSE, or mad cow disease, in the United States. I look forward to testimony and your insights and the progress that FDA has made since our meeting.

BSE

I am pleased that FDA's 2002 budget request of $1.4 billion represents a significant increase over 2001.

In our discussion with Dr. Sundlof, we discussed the FDA 1997 rule that U.S. rendering plants and feed mills ban the mixing of animal protein in manufactured ruminant feed and that feed mills apply cautionary labels on feed products with ingredients that may contain non-approved mammalian protein. In that meeting, FDA made an assurance to inspect 100 percent of all feed mills in addition to reinspection of feed mills that were found to be out of compliance with the ban by September 30 of this year. I am pleased that the testimony today includes a commitment to do just that.

During our meeting, it was reported that over 1,000 feed mills are licensed under the FDA and that 16 percent failed to prevent the commingling of bone and meat material in ruminant feed and 12 percent failed to issue warning labels on feed containing material prohibited for ruminant feed.

Today livestock producers in my State of South Dakota and across the country are being asked to certify that they are not feeding prohibited material to cattle and sheep to prevent an outbreak of mad cow disease. If any feed mills and others are knowingly

avoiding compliance with the FDA's rule, it creates serious marketing uncertainty for cattle and sheep producers and feeders who might unfairly be held accountable for unknowingly using feed in ruminant material.

So, I look forward to comments on how the FDA will assure that feed mills and renderers do, in fact, comply with the ban by your prescribed time table of September 30, 2001, and also given the fact that the FDA contracts with States to inspect feed mills and rendering plants and that up to 80 percent of all inspections are done by State officials and not the FDA, I am interested in this collaborative effort and how effective and airtight it really is.

GENERIC DRUG APPROVALS

A second matter that I will be interested in today has to do with the Office of Generic Drugs and my concern about access to affordable and safe prescription drugs. I am concerned with a number of applications for generic drug approvals that will be coming before the Office of Generic Drugs in the future and whether or not the OGD will have sufficient resources to meet the statutory 180-day time frame necessary for approval of these applications.

PREPARED STATEMENTS

I am also concerned about allegations of conflicts of interest within the FDA advisory committee and any comments that might be had there.

So, Mr. Chairman, thank you for holding this very timely hearing and I look forward to the testimony today.

[The statements follow:]

PREPARED STATEMENT OF SENATOR TIM JOHNSON

Thank you Chairman Cochran, Ranking Member Kohl and members of the subcommittee, I am pleased to participate in today's hearing on the fiscal year 2002 budget request for the Food and Drug Administration (FDA).

I welcome Dr. Bernard Schwetz, Acting Principal Deputy FDA Commissioner, as well as other FDA officials here today including Dr. Stephen Sundlof, Director of FDA's Center for Veterinary Medicine. One month ago I met with Dr. Sundlof to discuss the actions taken by FDA to prevent an outbreak of Bovine Spongiform Encephalopathy (BSE also known as "mad cow" disease) in the United States. I discovered a great deal from that encounter and I look forward to your insight on the progress FDA has made since our meeting to strengthen existing safeguards that keep BSE out of our country.

Mr. Chairman, the day-to-day operations of FDA reach every single American person, it is clear this agency has an awesome responsibility. I am pleased FDA's fiscal year 2002 budget request of $1.4 billion represents an increase of $123 million over fiscal year 2001. Congress and the American people expect FDA to protect our health and promote our well-being and today, I would like to focus on a few of these timely and critical matters under FDA's jurisdiction.

Commissioner Schwetz, earlier this year I wrote you a letter requesting a meeting concerning FDA efforts to prevent the occurrence of BSE in the United States. Given the confusion tied to the effects of BSE in Europe, I believe it is imperative that Congress and the FDA make every attempt now to ensure that domestic feed supplies, livestock herds, vaccines, and meat products remain safe for the consuming public.

As I mentioned earlier, I was pleased that on April 5, Dr. Stephen Sundlof, Director of FDA's Center for Veterinary Medicine, met with me to discuss the efficacy of a 1997 FDA rule that U.S. rendering plants and feed mills end the mixing of animal protein in manufactured ruminant feed, and that feed mills apply cautionary labels on feed products with ingredients that may contain "non-approved" mammalian protein.

In this meeting, FDA made an assurance to inspect 100 percent of all feed mills—in addition to re-inspections of feed mills that were found to be out of compliance with the ban—by September 30 of this year. This comprehensive inspection approach should help ensure that prohibited animal meat and bone material is not being mixed with ruminant (cattle, sheep, goat) feed. I am especially pleased to recognize that your testimony today supports the commitment you made in our meeting. Because it is believed BSE was first caused in the United Kingdom when sheep meat and bone meal was fed to cattle, it is imperative that FDA take precautions to guarantee that domestic feed supplies are not "contaminated."

During our meeting, Dr. Sundlof reported to me that of U.S. renderers inspected by FDA, 10 percent failed to prevent the co-mingling of meat and bone material in potential feedstuffs and 11 percent failed to properly affix labels or other precautionary statements to products containing prohibited material.

Additionally, over 1,000 feed mills are licensed under the FDA, and 16 percent of these licensed feed mills failed to prevent the co-mingling of bone and meat material in ruminant feed and 12 percent failed to issue warning labels or notifications on feed containing material prohibited for ruminant feed. Today, livestock producers in South Dakota and across the country are being asked to certify that they are not feeding prohibited material to cattle and sheep in an effort to prevent an outbreak of mad cow disease. If any feed mills and others are knowingly avoiding compliance with FDA's rule, it creates serious marketing uncertainty for cattle and sheep producers and feeders who might unfairly be held accountable for unknowingly using feed with ruminant material. Current conditions warrant that anything less than full compliance with this rule is unacceptable, so I look forward to your comments on how FDA will assure that feed mills and renderers comply in a meaningful way by your prescribed timetable of September 30, 2001.

I also discovered from Dr. Sundlof that FDA contracts with individual States to inspect feed mills and rendering plants, and that remarkably up to 80 percent of all inspections are done by State officials and not the FDA. I am curious to learn how effective this collaborative effort really is, and I believe this subcommittee should explore the need to make certain that FDA has enough resources and people to do inspections, or, that we have sufficient funds to provide States with compensation for their efforts.

However, I am pleased that FDA made BSE prevention efforts a top priority in their fiscal year 2002 budget request. Indeed, FDA has targeted $15 million in the fiscal year 2002 budget request to protect consumers against the variant Creutzfeldt-Jakob disease (vCJD), a fatal disease in Europe linked to BSE. FDA has also tapped a contingency fund within it's Center for Veterinary Medicine to re-program $2.4 million in fiscal year 2001 to conduct the inspections and reinspection of feed mills and renderers.

Beef cattle production represents the largest segment of South Dakota's agricultural economy. If mad cow disease or Foot and Mouth Disease (FMD) were to invade South Dakota or the U.S., the effects could be monumental. It is simply incumbent upon Congress and the FDA to identify whether or not current BSE safeguards are being followed in a serious way. Proactive measures now will reassure consumers and livestock producers that our ruminant feed products, domestic livestock herds, and food supplies are safe.

South Dakotans and others across the country are also concerned about access to affordable and safe prescription drugs, and FDA's Office of Generic Drugs (OGD) is charged with the responsibility of approving and marketing new generic drugs as patents on brand-name drugs expire. Over the next five years, the patents on approximately $34 billion in sales of brand drugs will expire. Studies have indicated a generic drug typically enters the market priced 30 percent less than the brand product and consumer savings increase up to 80 percent on average after two years. This translates into significant savings to consumers and health care programs such as VA, Defense, Medicaid, and Medicare. In fact, consumers stand to save over $5 billion as patents on a number of blockbuster drugs expire.

However, I believe more should be done to make health care providers, managed care organizations, health insurers and consumer organizations better informed about the safety and equivalency requirements for generic drugs. Lack of knowledge and awareness about generic drugs reduces the likelihood that these groups will recommend or use generic drugs when they are available as a substitute to brand products. Furthermore, preconceived concerns about the quality of generic drugs, although unwarranted, can adversely impact patients' treatment programs. It believe these constituencies need to know that the equivalency between generics and brand products will lead to greater health care savings. In fact, studies have indicated that a 1 percent increase in the use of generic drugs will result in over $1 billion in savings to consumers and health care providers. Moreover, due to the number of brand

patents due to expire, I am concerned with the extraordinary number of applications for generic drug approvals that will come before the Office of Generic Drugs in the future and whether or not the OGD will have sufficient resources to meet the statutory 180-day timeframe necessary to approve these generic applications. Lack of adequate scientific personnel prolongs delays to the approval process resulting in lost savings to patients and health care providers. I look forward to your insight on the OGD's capacity to handle this workload.

Finally, I am concerned about the potential for conflicts-of-interest within FDA Advisory Committees. Your testimony states that, "research expenditures by the pharmaceutical industry alone have tripled since 1990. More and more complex products, which arrive at FDA's gate for preclinical and clinical studies design consultation, for marketing application review, and, for post-approval continuing reassessment are products of the growing NIH research budget and of academic and industry research fueled by NIH. We will ensure that FDA will not become a bottleneck in getting these public health breakthroughs to the public while serving as the trusted, independent, efficient gatekeeper it is now."

However, in recent years, questions have been raised regarding the nature of the FDA Advisory Committee decision making process, and whether FDA Advisory Committee actions are truly independent. In fact, the Los Angeles Times did a series of articles on FDA advisory committees and the conflicts-of-interest that are pervasive among members of the committees. The findings included that some FDA advisory committee members are allowed to remain as consultants or researchers for the same companies whose products they are evaluating. In the case of Rezulin, which was pulled from the market last March due to its alleged connection with nearly 400 deaths, it was noted that FDA officials collaborated closely with the makers of the drug, providing "inside information and favors at critical moments throughout the development and marketing of Rezulin." To the agency's credit, FDA released an internal report acknowledging that the agency committed "possible missteps" in its handling of this case. Nonetheless, I believe it is imperative that FDA make assurances to Congress—and the American public—that these apparent conflict-of-interest questions will be addressed in a straightforward fashion. We must have confidence that the public's trust is not being violated, nor their health jeopardized, by these advisory committees.

Thank you Mr. Chairman, this concludes my opening statement.

PREPARED STATEMENT OF SENATOR HERB KOHL

Thank you, Senator Cochran. It is good to be here this morning. Dr. Schwetz, thank you for coming to testify, and I look forward to hearing from you regarding the 2002 budget for the Food and Drug Administration.

FDA has a mandate that touches the lives of nearly every American, every day. Monitoring and ensuring the safety of more than one trillion' dollars worth of consumer products, including nearly all food and medicine, is no small task. And you are doing a good job, evidenced by the fact that 80 percent of Americans gave the FDA a favorable rating in a recent survey.

However, times are rapidly changing, and for you to continue doing a good job, you must remain at the forefront of the changes. The boom in medical technology, the advances in drug development, the globalization of the marketplace, the outbreak of animal diseases and high-technology agriculture—including the introduction of milk protein concentrates—all require greater knowledge and attention from a first-class workforce than ever before.

The President's fiscal year 2002 budget provides $1.414 billion for FDA, an increase of $123 million over fiscal year 2001. While a nine percent budget increase is commendable, especially when the overall Federal budget is very lean, it is necessary to keep consumers safe.

Of this increase, $40 million is necessary to meet mandatory cost-of-living and pay related increases for FDA employees. Over the past eight years, FDA has had to absorb $284 million for these mandatory costs, causing staffing levels in program areas not funded by user fees to decrease by 10 percent. This means 10 percent fewer scientists, physicians, nurses and other public health specialists working to ensure that the food our families eat, and the medicine our children and parents take, is safe. Taking this into consideration, $40 million seems like a small price to pay to ensure the retention of top-notch employees.

The globalization of today's marketplace has increased the number of foreign-produced imports FDA is charged with regulating from 1.5 million in 1992 to approximately 6 million in 2000, totaling $80 billion worth of products. Currently, FDA has the ability to inspect less than one percent of these products. This is a fact that I

find alarming. While I realize that it is impossible and truly unnecessary to inspect 100 percent of all products imported into the United States and purchased by consumers, I think that one percent is a number that must be raised. The President's budget has requested $25 million to prevent substandard products from reaching the U.S. market, whether they are imported or produced here at home. Again, this seems like a small amount to ensure the safety of $1 trillion worth of food and health-care products. I am interested to hear what you think is an adequate amount of products to be inspected, and how much money is necessary to inspect that amount.

Dr. Schwetz, I applaud the FDA for doing an exceptional job of protecting the public and keeping consumer confidence high, something we enjoy in the U.S. that many other countries in the world do not. FDA holds its products to the highest standards of approval, and we hold you to that same standard. Mr. Chairman, I look forward to working with you to make sure that FDA's budget this year enables the Agency to continue keeping American consumers safe.

PREPARED STATEMENT OF SENATOR RICHARD J. DURBIN

The Food and Drug Administration is one of the most important government agencies we have here in America. It is charged with overseeing the safety of nearly 25 percent of our economy today. From complex medical devices such as heart pacemakers to the safety of a teething ring that a baby sucks on.

Over the past few years, many industries regulated by the FDA have invested enormously in bringing new products to development and we here in Congress have been committed to increasing resources for scientific research including the search for new medications, at NIH. Couple those with the completion of the decoding of the human genome and you can see how the workload for FDA has been growing exponentially.

Furthermore, with increased globalization of trade and movement of both individuals and commercial products, FDA is challenged even more to maintain the highest standards for protection of the public from harm.

At a time when the agency's workload is clearly expanding, unfortunately, its staffing levels have fallen. The agency has had to absorb unfunded pay raises and other inflationary costs without additional funding for several years. So I am happy to see that this year's budget does include $40 million for pay-raises and COLAs for agency staff.

As you know, I have had a long interest in food safety. The United States has been blessed with one of the safest and most abundant food supplies in the world. Yet food-borne illness is recognized as a significant public health problem in our country. The Centers for Disease Control and Prevention estimate that 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths are caused by food-borne pathogens annually.

We have the science and know-how to make our food supply even safer. And as the public learns of global threats to food and animal safety—diseases like "mad cow" and foot and mouth—and new, unfamiliar technologies—like genetically engineered crops and animals—we need to make sure that public confidence in food safety remains high.

I recently announced that I will soon introduce the National Food Security and Safety Act to strengthen our national defenses against mad cow disease and related threats. This bill will apply sound science and good common sense to make our borders more secure, improve our surveillance activities, and remove from the food supply—for humans and animals—some animal-derived materials that could potentially spread mad cow. We'll also get these same materials out of non-food items, like cosmetics and medicines.

I also plan to reintroduce the Genetically Engineered Foods Act. While I strongly support biotechnology, I've seen farmers in Illinois and throughout the country get hurt by some grave mistakes. We must be able to better assure farmers of an available market for biotech crops, and assure consumers of the safety and effective oversight of this new technology. My bill will accomplish both these aims.

All food safety threats—whether salmonella or mad cow—are made more difficult to manage by our highly fractured food safety system. Serious questions have been raised about the ability of the current regulatory system to ensure the safety of the food supply and to manage emerging hazards and new technologies. This system was devised nearly one hundred years ago, when the food system looked very different than it does today. Now, in addition to a domestic food industry with tens of thousands of processors all over the country, a vast quantity of food is being imported to our country.

Currently, Federal oversight for food safety is fragmented with at least 12 different Federal agencies, 35 different laws governing food safety, and 28 House and Senate subcommittees with food safety oversight. With overlapping jurisdictions and scattered responsibilities, Federal agencies often lack accountability on food safety-related issues.

For that reason, I will also be reintroducing the Safe Food Act. This legislation would unite food safety and inspection activities in a single agency with a clear mission to protect the public health. While most people acknowledge that the current fragmented food safety system must be streamlined and modernized in order to meet the needs of consumers, the details of a new structure need to be developed in an open, participatory process that builds confidence on the part of all who will deal with that agency.

Food safety is vital to protect the health and well being of the American public and the food industry. And our food safety system is tested each and every day when millions of Americans sit down to eat. One of the best things we can do to protect the public health and save lives is unite federal food safety activities in one agency.

Unfortunately, despite the expectation that we would see the first federal budget to coordinate food safety spending activities across a range of agencies, the fiscal year 2002 budget proposed by the Bush Administration maintains the status quo—business as usual. Proposed food safety spending continues to be doled out and dispersed among the varied agencies, which share jurisdiction over the various elements of Federal food safety responsibility. In August 1998, a Cabinet-level council of regulators was tasked under Executive Order 13100 to develop a unified food safety budget designed to streamline and channel resources to areas of greatest need. It looks like an important opportunity might have been missed to critically evaluate food safety spending in a cohesive way.

Food Chemical News (4/16/01) reported "USDA's Food Safety and Inspection Service has once again sought the lion's share of inspection funding, primarily because meat plants have a congressional mandate to be continuously inspected. Given what has been requested for FDA for fiscal year 2002, those programs will undoubtedly struggle to make ends meet, even though that agency is charged with regulating the vast majority of food products, some of which pose as much risk as meat and poultry. Some of these gross disparities were supposed to be addressed in this budget cycle, as federal regulators were supposed to work together to weigh the risks posed by various foods and target resources accordingly—at least as far as the law would allow. Turf battles were supposed to be set aside and a federal vision of food safety regulation was supposed to emerge. What happened?"

I want to work with the Administration to design and implement a more streamlined system—and budget—to strengthen food safety and better protect public health. I hope the Department will continue to explore this idea and work with me on ensuring that our food supply is the safest in the world.

On a less positive note, I would like to mention my dissatisfaction with the agency's responsiveness in two areas. First, when I was Chairman of the Agriculture Appropriations committee in 1994, I placed a requirement in the fiscal year 1995 report accompanying the bill to require the agency to set up a gene therapy tracking system for individuals. This had been sought by patient groups representing those most likely to be included in gene therapy trials. FDA moved while I was chairman to begin developing such a tracking system, but since then, they seem to have forgotten the fiscal year 1995 requirement.

Following the tragic death of Jesse Gelsinger, it was discovered that we have a myriad of problems with gene therapy trials. These problems highlighted the need for an effective tracking system. So last year at this FDA budget hearing, I asked FDA to tell me about their plans for instituting this system and I received a "non-answer."

With Chairman Cochran's assistance, we placed a requirement in this year's appropriations bill for FDA to submit a full budget and implementation plan by the end of January. The agency missed the deadline and I extended it to April 1st. However, the report the agency sent up was entirely inadequate. It did not contain a budget nor did it contain a detailed plan for implementation.

I am still waiting for a reply and am very dissatisfied with the agency's foot-dragging. It is very difficult for Congress to provide the agency the funding it needs if it will not give us details of the likely expenses of addressing areas of concern.

In addition, in January I requested similar information on the budget resources necessary for full implementation of the new tissue safety regulations. I have yet to receive a reply to that letter.

As I said earlier, I am happy to see the agency receive new staff resources but am extremely disturbed by the agency's lack of responsiveness in these two areas

that are of grave concern to the public. Such foot dragging is neither necessary nor acceptable. I hope we can expect a new attentiveness to these issues in the coming weeks.

Mr. Chairman, I am pleased to have this opportunity to discuss these important issues today, and I look forward to working with you as we craft the coming year's budget for this critical agency.

Senator COCHRAN. Thank you, Senator.

Dr. Schwetz, we welcome you again to the committee. You may proceed.

Dr. SCHWETZ. Good morning. Thank you very much.

Mr. Chairman and members of the committee, I am Bernard Schwetz, the Acting Principal Deputy Commissioner of the U.S. Food and Drug Administration. I would like to introduce my colleagues: Dr. Linda Suydam, Senior Associate Commissioner of the FDA; Mr. Jeff Weber, Acting Senior Associate Commissioner for Management and Systems of the FDA; and Mr. Kerry Weems, the Acting Deputy Assistant Secretary of the Department of Health and Human Services. We are honored to have this opportunity to discuss the challenges facing the FDA.

You have seen my written testimony describing many of the agency's recent accomplishments, and I do not intend to address them in depth today.

SCIENCE AND TECHNOLOGY CHALLENGES

What I would like to discuss with you is FDA's role in today's rapidly changing scientific environment and the challenges we face in answering the increasingly complex questions that arise as we review these new technologies. FDA's challenges fall into four distinct but interrelated areas. First, innovations in science and technology are transforming the types of products FDA regulates and the speed at which they are generated. Second, consumers' demand for access to reliable health information is growing dramatically. The third challenge I will discuss is the increasing globalization of essentially all aspects of the industries and products that we oversee. And finally, our responsibility to quickly address emerging public health threats. So, let me expand on each of these areas.

First, substantial Government and private sector investments in biomedical research are resulting in hundreds of new and innovative products that are either in the R&D pipeline or have already arrived at the agency. To put it into perspective, consider that research expenditures by the pharmaceutical industry alone have more than tripled over the last decade. Likewise, bipartisan efforts are doubling the budget of NIH. As new products are generated by the academic and industry research, fueled by NIH, they must be evaluated by FDA staff with the scientific expertise to assess their benefits and risks. We want to ensure that FDA will not become a bottleneck in getting safe and effective products and therapies to the public.

PUBLIC TRUST

FDA's second challenge, maintaining the public's trust and confidence, is illustrated by the issues that arise with the successful mapping of the humane genome. This astonishing feat of modern science has generated both hope and concern throughout the sci-

entific community and the public with the promise of new genetic tests, gene-based designer drugs, and comprehensive genomics-based health care. To make the right science-based public health decisions, FDA's scientists must be on the leading edge in their specific scientific disciplines.

GLOBALIZATION

The third challenge I mentioned is the globalization of industry, a trend that is expanding FDA's role in protecting and promoting the health of Americans, as we strive to assure the safety of products grown or manufactured overseas for sale in the United States.

Finally, FDA faces the daily challenge of integrating its current workload with the challenge of emerging public health threats such as BSE, or mad cow disease.

FDA's fiscal year 2002 budget requests a total of $1.4 billion, an increase of $123 million over fiscal year 2001. The increases are targeted to specific initiatives, including BSE, food safety, and human subject protection. This request includes a total of $204 million in user fees. $20 million of this amount is for new user fees, for which authorizing legislation is needed.

PROFESSIONAL STAFF

FDA's greatest resource is our staff. The professional workforce necessary to meet our public health mission requires a focus on the scientific principles upon which our decisions are based. In fiscal year 2002, FDA is requesting $40 million to fund mandatory pay-related increases. This increase will allow FDA to maintain current levels of performance and improve the drug review process.

BSE

One of our major challenges is preventing the entry of BSE, or mad cow disease, into the U.S. FDA has been vigilant in this area for many years, and so far we have seen no cases of BSE in the U.S. We are working hard, in conjunction with other Federal, State, and private sector groups, to keep BSE out and we are prepared to prevent its spread if there ever is a case in cattle in this country. FDA is requesting a $15 million increase to support BSE activities.

IMPORTS AND INSPECTIONS

Inspections and imports represent another challenging area. Although we inspect manufacturing facilities prior to approval of new drugs and devices, today FDA performs routine inspections of only 28 percent of drug facilities and 16 percent of high-risk medical device facilities each year. FDA currently inspects overseas medical device firms only once every decade. From a safety perspective, this is unacceptable.

IMPORTED PRODUCTS

Imported products also represent a challenge. The majority of active pharmaceutical ingredients marketed in the United States are manufactured overseas. In addition, the importation of food from other countries has been growing rapidly over the past decade and

continues to grow. In fiscal year 2002, we expect to receive 7 million food import entries. FDA physically inspects less than 1 percent of all imported FDA regulated products. To restore this capacity, FDA is requesting $25 million for imports and inspections. This includes $14.7 million in new import fees. This increase will allow us to improve public confidence in the standards of imported drugs, biologic, and device products.

FDA APPROVALS

In the area of medical products, FDA reviewed over 17,000 applications for drug, biologic, and device products in the year 2000. Of these, 97 percent were approved. 160 of these approvals were for products that had never previously been marketed in any form in the United States Many of these products represent advances in the prevention, diagnosis, and treatment of serious and life-threatening diseases.

At the same time, FDA's responsibilities do not end with product approval, but continue throughout the entire product life cycle. Therefore, new product approvals lead to another set of challenges, monitoring adverse event reports for marketed products and taking appropriate action when necessary and reducing the incidence of medical errors. We are developing a systems approach for this issue, requesting $10 million in funding to support adverse event reporting.

CLINICAL TRAILS

FDA is also responsible for protecting patients involved in clinical trials and ensuring that the data gathered from these trials concerning the safety and effectiveness of a product are accurate. Many of the products we may later approve require testing in humans prior to marketing, and the protection of human subjects in clinical trials is an ongoing challenge for us. We are requesting an increase of $10 million to increase the number of inspections and, in particular, target high-risk clinical trials.

FOOD SAFETY

Touching briefly on another challenge, we have made major improvements in food safety, from decreasing the incidence of food-borne illness to developing mechanisms to monitor antimicrobial resistance. And yet, an estimated 76 million Americans get sick from food-borne illnesses each year, and more than 5,000 die as a result. We are requesting $14.7 million for food safety activities. A portion of this amount, $5.3 million represents new fees for export certification. When added to the other food safety related activities included under our other priorities, 16 percent of our requested increase will be for supporting FDA's food safety responsibilities.

INFRASTRUCTURE SUPPORT

The final challenge I will mention is our commitment to ensuring that our staff has the tools necessary to meet the agency's public health mission. We are requesting resources to complete the move of our Center for Drug Evaluation and Research to the new headquarters facility at White Oak, to complete construction of the new

Los Angeles laboratory, and to begin acquisition of a new financial management system.

PREPARED STATEMENT

Let me end my comments by emphasizing the importance of science to FDA's mission. The number and complexity of products and issues coming before FDA demand that the agency have the very best scientific capability to evaluate them. FDA must have a critical mass of top-notch scientific and medical expertise to assess these products and answer new questions. As the gatekeeper for new products and technology, FDA has a decisive impact on their safety, effectiveness, and the speed of their availability to the public.

Mr. Chairman this concludes my statement. My colleagues and I will be happy to answer any questions that the committee has today.

[The statement follows:]

PREPARED STATEMENT OF BERNARD SCHWETZ

Mr. Chairman, members of the Committee, my name is Bernard Schwetz and I am honored to be sitting before you today. As the Acting Principal Deputy Commissioner for the Food and Drug Administration, I appreciate the opportunity to discuss some of the accomplishments, as well as the challenges FDA faces in the new century. It's fair to say that this new century presents FDA with unprecedented challenges:

—the rapid transformation of the science and technology that generates the products FDA must regulate;
—increasing expectations of consumers with changing demographics and consumption habits to easily obtain medical and risk-related information;
—the expanding and evolving composition of global trade and production; and,
—emerging public health threats.

The United States is leading the world into an era of scientific achievements that can yield unprecedented gains for human health and nourishment. Industry's research and development pipelines abound with blueprints for hundreds of new and innovative products and processes that can literally transform life's experience, as we have known it. Such marvels of science as cell and gene therapy; genomics-based drugs; surgical robotics; and bioengineered plants and animals are in sight or within our grasp, and their potential for saving lives, improving the quality of life and enhancing the economy is enormous. But it also must be recognized that their potential for harm is enormous, if these new technologies are not appropriately overseen by individuals who understand them as well as by their proponents.

For many of these revolutionary products, the greatest hurdle is not in the realm of technology, but in the consumers' distrust of their dramatically different performance and features. The critical task of overcoming this formidable obstacle at the onset of the new age of technology is one of FDA's greatest challenges. The public expects that food set on the family table will be safe and wholesome; that new medical products, drugs, biologicals, and medical devices, available in a timely manner, will have demonstrated real benefits that outweigh their known risks; and, that the product information will be useful and understandable. To meet such high expectations, FDA must continually earn and re-earn, with each new technology, the trust of consumers. Day-in and day-out, this proud Agency must prove that it is up to this daunting challenge. A most recent example involves our efforts to manage the threat of Bovine Spongiform Encephalopathy (BSE or "mad cow disease") that has cost the European community billions of dollars, almost 100 lives, and has undermined the trust of Europeans in their governments.

A recent survey of five Federal regulatory agencies conducted by the Pew Research Center and Princeton Research Survey Associates, found that from 72 to 85 percent of consumers, health professionals, patients, and industry representatives said they trusted FDA to make the right decisions. The results placed FDA at the top of the survey's charts, with an overall favorable rating above 80 percent, more than twice the approval rate of government agencies in general. While we take great pride in such numbers and what they represent, technology is moving too swiftly for us to be content.

Each year presents even more challenges for FDA. Issues are increasingly complex and the breadth of FDA's responsibility ever expanding. While many of our constituents primarily focus on the product marketing application review process, it has become increasingly clear that FDA's eye must be equally focused on the full life cycle of all the products we regulate—post market as well as pre-market activities and developments. The changes and challenges facing us were never so apparent then when the successful mapping of the human genome was announced late last year. This has brought us to the threshold of a frontier that promises to transform the diagnosis, treatment and even prevention of diseases that today still cripple many in our society. Francis Collins, Director of the National Human Genome Research Institute at NIH, recently made a number of predictions about where genome research could lead in the next three decades. His forecast for the next ten years includes such things as genetic tests for a dozen medical conditions, and preimplantation genetic diagnosis, with primary care physicians practicing genetic medicine. There are hundreds of genetic tests under development and available in the United States. Only eight have been submitted to and approved by FDA. In 20 years, Dr. Collins predicts the availability of gene-based designer drugs to treat diabetes and hypertension, and cancer therapy precisely targeted to a tumor's molecular fingerprint. For FDA this means coordinating drug and genetic diagnostic development hand-in-hand. In 30 years, it's likely that comprehensive genomics-based health care will be the norm. Products will need to evolve from the research laboratory to well characterized therapeutics with established safety and effectiveness. To make these critical judgments, requires that FDA scientists remain on the leading edge in their specific scientific disciplines.

Substantial resources are needed to carry out FDA's mission. Research expenditures by the pharmaceutical industry alone have more than tripled since 1990. More and more complex products, which arrive at FDA's gate for preclinical and clinical studies design consultation, for marketing application review, and, for post-approval continuing reassessment are products of the growing NIH research budget and of academic and industry research fueled by NIH. We will ensure that FDA will not become a bottleneck in getting these public health breakthroughs to the public while serving as the trusted, independent, efficient gatekeeper it is now. Today, I would like to highlight some of FDA's many accomplishments of the past year that impact all Americans and touch on the new and challenging responsibilities of the twenty-first century.

FOOD SAFETY

Over the course of the past several years, with your support, the FDA has made great strides in improving the safety of the nation's food supply. Through a food borne illness surveillance system known as FoodNet (partially funded through FDA), the CDC has documented reductions in food borne illness for a number of important food pathogens. These reductions reflect the hard work of not just FDA, but other Federal agencies, and our State and local counterparts.

The FDA has always maintained that the strength of our regulatory program comes from the underlying science base. Last winter, we published two draft risk assessments addressing listeria and vibrio parahemalytics and we have since held public meetings to hear public reaction to them. These risk assessments are also enabling FDA to play a leadership role internationally.

The safety assessment of antimicrobial drugs for use in food-producing animals includes monitoring for the development of resistance. Monitoring is done through the National Antimicrobial Resistance Monitoring System (NARMS), which was initiated in l996 as collaboration between the FDA, the Centers for Disease Control, and the United States Department of Agriculture. Its purpose is to prospectively monitor the antimicrobial resistance of human, animal, and animal product isolates of selected enteric bacteria. NARMS data have been used to initiate field investigations of outbreaks of illness marked by a pathogen which displayed an unusual antimicrobial resistance pattern; assess the human health impact of fluoroquinolone use in poultry; stimulate research in molecular characteristics of resistance emergence and transfer; and, improve our knowledge of risk factors associated with the development of an antimicrobial-resistant infection. NARMS data have also triggered broader research projects of prudent antimicrobial use in animals and in the role of the environment in the emergence and spread of antimicrobial resistance.

MEDICAL PRODUCTS

During this past year, FDA's three major human medical product centers, the Center for Drug Evaluation and Research, (CDER), the Center for Biologics Evaluation and Research, (CBER), and the Center for Devices and Radiological Health,

(CDRH), demonstrated strong scientific expertise and efficiency by reviewing over 17,100 marketing applications for drug, biologic, and device products. The outcome of these reviews was that approximately 16,600 total products were found to have the required scientific data for approval for marketing in the United States. Of these, there were 160 approvals of medications and medical devices that had never previously been marketed in any form in the USA. Many of these approvals represent an impressive advance in the prevention, diagnosis and treatment for serious and life-threatening diseases.

Groups that particularly benefit from these approved medications and medical devices include cancer patients, patients with heart disease, children, women, and the elderly. In addition, FDA's approvals strengthened surgical flexibility with several state-of-the-art devices that reduce the risks of complex surgical procedures.

CANCER PATIENTS

Several products approved contributed to the prevention, early diagnosis or treatment of cancer, the second deadliest disease in the United States affecting eight million Americans. Two of the new cancer medications, Trisenox and Mylotarg, were approved for cancers of the white blood cells. For women, Nolvadex (tamoxifen citrate) was approved last year for a new use to reduce the risk of invasive breast cancer with preinvasive cancer of the mammary ducts.

Three of the cancer treatments approved were medical devices. A laser system was approved that enhances a physician's ability to distinguish small harmless growths from pre-cancerous growths in the colon. A surgical sealant was approved for sealing air leaks in lungs following the removal of cancerous tumors. A third device, for early cancer diagnosis, is the first mammography system that produces digital images on a solid-state receptor instead of analog images on a radiographic film. Early diagnosis remains the best weapon against breast cancer, which annually affects 180,000 women—of which approximately twenty-five percent die of the disease.

An example of the cutting-edge research currently being conducted that will transform the way we diagnosis and treat cancer is the FDA/NIH Tissue Proteomics Program which is the only one of its kind in the world. This joint effort of CBER and the National Cancer Institute (NCI) focuses on the development and use of proteomic tools for the early detection of cancer and other diseases. The project's accomplishments include the development of methods for early disease detection, the identification of new therapeutic targets and the discovery of new biomarkers for drug-induced patient toxicity. This bench-to-bedside model has resulted in a first-of-its-kind clinical trial that incorporates a "proteomic portrait" of the disease in human tissue that could lead to customized, patient tailored therapeutics. Currently, this research has identified over 150 proteins that are aberrantly expressed in human prostate, lung, breast, ovary, esophageal, and colon cancer. Furthermore, a new artificial-intelligence computer software system has been invented and developed to reveal protein patterns that can be used as surrogate markers of therapeutic efficacy, toxicity and early disease detection.

This is but one example of the work being conducted also at CDER, NCTR, and CFSAN concerning predictive modeling and standards modification using common databases and computational science.

CHILDREN AND INFANTS

Several new products approved last year for pediatric and obstetric use were either specifically designed for the youngest patients or were adult drugs now approved also for use in children. Approvals included: the OxiFirst Fetal Oxygen Saturation Monitoring System, which represents the first major technological development in fetal monitoring in three decades; Prevnar, a pneumococcal vaccine for infants and toddlers under the age of two which was designed to prevent invasive diseases caused by Streptococcus pneumoniae, including bacteremia, an infection of the blood stream that affects about 35,000 infants and toddlers in the U.S., and meningitis, an infection of the lining of the brain or spinal cord that is diagnosed in about 17,500 infants a year; and, Pulmicort Respules (budesonide inhalation suspension), the first anti-inflammatory corticosteroid formulated for inhalation using a nebulizer in the 1–8 year-old age group.

WOMEN

FDA approved several other products to treat diseases that either exclusively or predominantly affect women. Remicade (inflixmab) was approved for the reduction in signs and symptoms of rheumatoid arthritis, which affects more than 8 million Americans, three-fourths of whom are women. Another approval was Novantrone,

for the treatment of advanced or chronic multiple sclerosis. The disease affects up to 350,000 Americans, 66–75 percent of whom are women.

FDA also continued successfully working with the States and the American College of Radiology to monitor mammography facilities. This successful partnership helps assure high quality mammography services to women.

CARDIAC PATIENTS AND THE ELDERLY

Examples of new products for patients with heart disease and the elderly include several novel devices and important medications. Two of the devices use catheters to deliver radiation inside a coronary stent following the reopening of a blocked artery. The radiation helps reduce the risk of new tissue growth inside the coronary stent and the resulting repeated narrowing of the artery. Among the products designed primarily for the elderly, Visudyne (verteporfin for injection) is the first therapy to slow vision loss in people with the classic type of "Wet Age-Related Macular Degeneration."

DIABETES

FDA has recently approved the first minimally invasive glucose meter (the Minimed System) for use in monitoring patients with diabetes. Most recently, FDA has approved the first non-invasive device used to detect trends and track patterns in glucose levels in adults. The device is used together with finger prick blood tests to monitor glucose blood levels. FDA and industry scientists need to continue to work together to make sure that the accuracy of the new devices is high enough for reliable home use.

DRUGS FOR RESISTANT INFECTIONS

Another important product that passed the FDA's rigorous review for safety and effectiveness last year included the first drug of a new class of antibiotics that addresses treatment for the emerging serious public health threat of vancomycin-resistant bacterial infections.

STATE OF THE ART ROBOTIC MEDICAL DEVICES

Finally, I am happy to report the approval by our Center for Devices and Radiologic Health of a promising new surgical system that incorporates cutting-edge robotics technology.

These products are only a small sample of the new drugs, biological products and medical devices the agency approved last year in its role of public health promoter. In addition, CDER issued 244 approvals of generic counterparts of original drugs. Generic drugs substantially reduce the cost of purchasing pharmaceuticals by typically offering price discounts from 50 percent to 75 percent. Similarly, CDRH cleared for market almost 3,500 so-called 510 (k) devices, products that are similar to devices already on the market.

In addition to approving a host of important new medical products in 2000, FDA has continued not only to meet—but also to exceed—virtually all of its product review and product development consultation performance goals under the Prescription Drug User Fee Act (PDUFA). For example, for the fifth straight year, FDA reviewed 100 percent of PDUFA marketing applications within the time frames agreed with Congress. Because of this review efficiency and thoroughness, last year, FDA approved 20 products classified as priority drugs—drugs that have a real benefit beyond existing therapies—in the median time of only 6 months. Moreover, although PDUFA goals specify review times and not approval times, actual approval times (FDA review time plus the time it takes companies to answer deficiencies identified by FDA) have decreased around 60 percent since the program started.

BLOOD SAFETY AND REGULATION OF TISSUES

Each year more than 3 million Americans receive donated blood. While blood and blood-derivatives can be life saving, they can transmit undetected infectious disease. Assuring the safety of and preventing shortages in, the blood supply continues to be one of FDA's priorities.

Tissues have long been transplanted in medicine for widespread uses such as skin replacement after severe burns, tendons and ligaments to repair injuries, heart valves to replace defective ones, corneas to restore eyesight, and the use of human semen and implantation of eggs to help infertile couples. In recent years, scientists have developed new techniques, many derived from biotechnology, that enhance and expand the use of human cells and tissues as therapeutic products. These new techniques hold the promise of some day providing therapies for cancer, AIDS, Parkin-

son's Disease, hemophilia, anemia, diabetes, and other serious conditions. A GAO report, published in December 1997, supported strengthening requirements for tissue establishments. In January 2001, the Office of Inspector General published two reports, "Informed Consent in Tissue Donation, Expectations and Realities", and "Oversight of Tissue Banking". The latter report recommended that FDA expedite the publication of its regulatory agenda that requires registration of tissue banks, enhanced donor suitability screening and testing, and the use of good tissue practice. It also recommended that FDA increase the number of inspections of tissue establishments performed to enhance oversight.

FDA strengthens its public health promotion role in many other ways such as (1) refusing to approve products not shown to have real benefits that outweigh their known risks; (2) assuring adequate information on appropriate use for approved products; and, (3) monitoring and continually reassessing new data that are developed after products go on the larger general market in the U.S. Last year, FDA also issued 125 draft and final guidance documents to clarify requirements and facilitate industry's compliance with FDA's product efficacy, safety and quality standards.

GLOBAL TRADE AND GLOBAL PRODUCTION

FDA has also worked closely with international organizations to harmonize requirements and standards for the products we regulate. This work recognizes not only the international nature of our regulated industries but also our collective need to share expertise concerning new products in both the pre- and post-approval phases across all borders.

FDA is the recognized gold standard. Our regulatory approaches are often cited by officials in other countries. For example, in the wake of recent European food crises, including BSE and dioxin in meat and dairy products, European Commission President Romano Prudi advised the European Parliament that one way to prevent more food crises in the future would be to establish a European food agency modeled on the FDA. Numerous foreign delegations have visited FDA over the past year to discuss food safety regulation.

FDA is a leader in international food safety harmonization efforts through the Codex Alimentarious, and has worked with WHO and FAO to increase the profile of food safety issues around the globe.

In the area of drugs and biologicals, we now have more than 50 guidances that have been agreed-upon by FDA, its counterpart agencies in the European Union, Canada, and Japan, and the innovator drug and biologic industries in these countries. These guidelines cover very specific topics regarding drug and biologic preclinical and clinical testing, manufacturing, post-approval continual reassessment and regulatory submissions. One major advance in this effort has been an agreement on the content of periodic safety updates on approved products. With this agreement, we can now be assured that regulators in those regions will be able to receive the same safety information at the same time about products being marketed in their countries. In addition, we have agreed on electronic format and transfer standards to facilitate and to make even more efficient the electronic transfer of safety information between companies and regulatory agencies in these regions.

This terminology allows even more efficient and more accurate transfer of new post-approval safety data around the globe and facilitate better, more informed public health decisions about the ongoing safety profile of marketed products. Most recently, through this process, known as the International Conference on Harmonization (ICH), we have reached agreement on "A Common Technical Document" that will standardize the format for the major portions of a marketing application across these regions. With such a core document, a pharmaceutical or biologic firm seeking approval of a product in one or more of the participating countries will be able to submit essentially the same document to each country. The influence of ICH is now spreading even beyond the original regions as other nations build their regulatory infrastructures and use the ICH guidances as their own standards.

We've also made progress in the realm of international harmonization of medical devices. Along with our counterparts from the EU, Japan, Canada, and Australia, we are developing protocols that will permit harmonization among these five entities and their regulation of medical devices.

In the spirit of transparency, FDA's website, launched in 1995, provides another essential way of exposing the agency to the public we serve. Materials posted on the web include materials to be discussed at upcoming advisory committees, enforcement actions, talk papers, speeches, and educational information. Our website has received numerous awards from such quarters as Popular Science magazine, the Dow Jones Business Director, and Tufts University's Nutrition Navigator. Moreover, it is linked to 8,000 other health, consumer, medical, and educational websites.

These kinds of activities help prepare us for the global environment in which most of the products we oversee now exist. This helps us to more successfully bridge differences in government, language, and culture. In short, they prepare us for what is to come by providing a blueprint for harmonization around the world. This globalization of product development, testing, and ultimately trade, further highlights the need for a strong and robust FDA. As trade agreements and policies are negotiated, the maintenance of strong public support requires that a scientifically strong regulatory agency have a forceful voice in those discussions on matters that will affect the health of the American public.

CHALLENGES

Despite the significant strides made in the public health arena over the past few years, FDA faces formidable challenges in the near future. I would like to highlight some of these for you today. FDA's fiscal year 2002 request totals $1.414 billion, an increase of $123 million over fiscal year 2001. The increases over fiscal year 2001 are targeted to specific initiatives to include: funds to prevent the spread of mad cow disease; to expand food safety activities; and, to protect human subjects in clinical trials. In addition, of the funds requested, $204 million will be derived from industry-specific user fees, including $20 million in new fees for food export certificates and import operations.

OUR MOST IMPORTANT RESOURCE

Cutting edge science and technology are providing us with new opportunities and challenges every day. Over the past few decades we have seen large investments by both the public and private sector in biomedical research and biotechnology that will result in the development of an abundance of new products that need to be assessed before entry into the marketplace and during their use. As these products enter the marketplace, they should change the very face of health care in America and should help us all lead longer, healthier lives. They should also bring enormous economic benefits by reducing the cost of health care. Having a high performing, science-based regulatory agency to render decisions regarding the safety and efficacy of these products reaps great public health benefits for all of us.

In fiscal year 2002, FDA requests $40,000,000 to fund mandatory pay-related increases. This increase for base resources focuses on pay adjustments because personnel are so essential to accomplishing the Agency's mission. These resources will enable FDA to maintain current levels of performance, and to continue to improve the drug review process. Payroll increases are needed to cover about half of the staff involved in the drug application review process not supported by PDUFA user fees; to improve the ability to assure the safety of regulated products; to inspect and investigate domestic and foreign manufacturers; and, to participate in Mutual Recognition Agreements with countries to establish global standards for foods and pharmaceuticals. We need now, more than ever, your continued support to assure FDA is ready to respond to these challenges. Bovine Spongiform Encephalopathy (BSE)

BSE is one of a group of progressive degenerative neurological diseases known as transmissible spongiform encephalopathies (TSEs). BSE is a TSE of cattle. TSE diseases are always fatal. There are six TSE diseases that affect humans, of which Creutzfeldt-Jakob disease (CJD) and variant Creutzfeldt-Jakob disease (vCJD) are best known. vCJD is believed to be transmitted to humans by the consumption of food products contaminated with the agent of BSE.

Since the BSE epidemic began in 1986, more than 176,000 cases of BSE have now been confirmed in Great Britain. To date, over 90 human lives have been lost in Europe due to vCJD. Now cases of BSE in cattle have also been reported in other European countries. Here in the United States, we have been fortunate. To date, BSE has not been detected in our cattle herds and we have not had any patients diagnosed with vCJD. Based on the UK experience, if BSE were to be encountered in the U.S., it would have not only an obvious potential impact on our public health, but also a monumental impact on our beef industries, with initial U.S. revenue losses estimated to reach over $15 billion. To protect consumers, it is essential to implement and monitor a multi-layered safeguard system to ensure that BSE regulations and guidance principles are followed. BSE has a potential impact on many biological products such as vaccines, cells or cell-derived products, and blood. It is important for the FDA to have an active research, review and inspection program to assure product safety.

Bovine-derived materials have traditionally been used in the manufacture of many biological products, including vaccines. To date, there are no reports of BSE contamination of pharmaceutical or biological products. To minimize the possibility of contamination in such products, the FDA recommended in the Federal Register

on August 29, 1994, and again in 1996, that manufacturers not use materials derived from cattle that were born, raised, or slaughtered in countries where BSE is known to exist. The FDA referred manufacturers to the listing of such countries that is maintained by the U.S. Department of Agriculture.

In addition to FDA's regulation which prohibits the feeding of mammalian protein to ruminant animals, the Animal and Plant Health Inspection Service (APHIS), of the United States Department of Agriculture, has placed restrictions banning the importation of live ruminants and certain ruminant products from thirty-one countries. FDA, in conjunction and cooperation with APHIS, has issued a series of import alerts and bulletins regarding products, which FDA regulates. Many products regulated by FDA contain these banned substances and it is important to enhance and make as comprehensive as possible our BSE monitoring system to identify products that may pose a health risk and ensure they do not enter the U.S. FDA has also issued guidelines to Blood Centers to exclude potential donors who have spent six or more cumulative months in the U.K. between January 1, 1980 and December 31, 1996, from donating blood. At the Transmissible Spongiform Encephalothies Advisory Committee (TSEAC) in January 2001, the Committee recommended the deferral of donors who lived in France, Ireland or Portugal for a period of ten years between 1980 and the present. We need to continue to monitor BSE activities and revise our current policies as needed based on new information.

The focus for FDA and its partners in other agencies has been prevention. Using the best science known at this time, the U. S. has an aggressive multi-faceted program in place to try to prevent the establishment and spread of BSE. The Agency has committed to inspecting 100 percent of all feed mills, plus re-inspections of those establishments not in compliance by the end of fiscal year 2001. Within the planned resources, this would have been impossible. FDA has looked internally at several other sources to redirect to BSE needs. We have tapped into the FDA contingency fund for the first time in several years plus moved priorities within the field portion of the Animal Drugs and Feeds program. BSE is a high priority, and the Agency is working to meet its commitments.

To prevent exposure of American citizens and food animals to the agent of BSE, the Agency is requesting $15,000,000 in fiscal year 2002 for needed BSE activities. With this funding, FDA will increase monitoring of imports to ensure prohibited materials do not enter the United States; conduct targeted BSE inspections of all renderers and licensed and non-FDA licensed feed mills handling prohibited material, such as meat and bone meal on a yearly basis; provide training to Federal and State inspectors on the current BSE situation; conduct market studies to identify food, dietary supplements, and cosmetic products containing spinal cord and other at risk products; conduct research on Chronic Wasting

Disease (a TSE), which affects elk, deer, and other domestic game and pen-reared animals in the United States; and, conduct follow-up education on for-cause inspections of biological products, blood, and vaccines.

IMPORTS AND INSPECTIONS ACTIVITIES

FDA is responsible for ensuring the safety of products produced and distributed by more than 100,000 domestic establishments. The Agency uses its inspectional authority, as directed by statute, to provide this assurance. For many establishments, the law requires FDA to conduct inspections at specified time intervals, such as once every two years. Resource constraints over the past several years have seriously impaired FDA's ability to meet its statutory biennial inspection requirements. By fiscal year 2002, FDA will be responsible for ensuring the safety of almost 7 million line entries of imported products that cross our borders annually. The sources of many of these entries are diversified and include an increasing number of products from countries that are typically categorized as emerging economies, with developing regulatory infrastructures. FDA conducts sampling and end point product testing as a means of determining that imports have been properly produced.

To restore this seriously impaired capacity, FDA must increase foreign and physical port inspections and oversight of foreign producers to be able to maintain the safety of products on the market that we believe Americans expect and demand, additional funding of $25,000,000 is requested for imports and inspections. This includes $10,300,000 in budget authority and $14,700,000 in new import user fees. With this funding, FDA will increase inspections of domestic medical device manufacturers; surveillance of imported tissues and other imported biological products; sample analyses of domestic and imported drug products; criminal investigation of fraudulent drug imports; and, sample collection, analysis, and field exams of imported foods and dietary supplements. This increase will also allow us to improve public confidence in the standards of drugs, biological, and device products imported

from the European Union, and intensify drug inspections in developing countries. FDA plans to expand import entry review resources to keep pace with the increase in line entries and modernize the OASIS import data processing system to provide import reviewers with more rapid and direct access to information necessary for entry decisions.

Inspections and import surveillance are the primary means of assuring the safety of marketed products. Consumers rely on the FDA to prevent dangerous and unreliable products from entering into commerce. Despite a decrease in the overall number of inspections, in fiscal year 2000, FDA conducted 880 foreign inspections, which represented a twelve-percent increase over fiscal year 1999. However, FDA physically examined less than one percent of all entries offered for import into the United States. While the FDA continues to undertake initiatives to improve the safety of imported products, there is often no substitute for physically examining these products.

REDUCED ADVERSE EVENTS RELATED TO MEDICAL PRODUCTS

FDA is responsible for ensuring that the benefits of approved products continue to outweigh their newly discovered risks after product approval. Historically, the Agency has primarily relied upon a voluntary, passive reporting system in which consumers, manufacturers and health professionals submit reports of suspected adverse product reactions to FDA or the manufacturers of the products who then, by regulation, must submit the reports to FDA. This voluntary system was designed primarily to signal the possible existence of new rare, but serious, side effects of marketed products, which are most often of a frequency that they could never be detected in routine clinical trial programs because of the size limitations of most product development clinical trial programs. About 1–3 percent of the total number of products approved each year have had to be removed later because of rare, but serious, new side effects discovered through this system. Each year FDA receives more than 350,000 of these kinds of reports of suspected product adverse reactions. These reports must be investigated, analyzed and acted upon promptly. While we have invested heavily in making this system more efficient, there are areas of post-approval product injury of which we believe we should be focusing to improve our abilities to make medical products safer.

For example, not all safety issues relate to direct toxicity of the medical product. Some product related injuries are the result of inappropriate use or erroneous use of the product, which, if it had been used properly would not have resulted in injury. The Department of Health and Human Services established a Patient Safety Task Force to integrate the collection of data on medical errors—including medication errors- to coordinate research and analysis efforts and, to collaborate on reducing the occurrence of injuries that result from medical errors. The task force's goal is to reduce medical errors by fifty percent over five years through the development of a coordinated, easy to use, confidential reporting system which will minimize the burden of reporting suspected medical errors or conditions that might result in medical errors. Biological product safety is also of concern, including vaccine safety, infectious disease risks, and blood and tissue safety to name a few.

To meet some of these challenges, FDA is adopting a systems approach, of which the most significant component is the identification of and response to adverse events that are reported in the U.S. With an increase in funding of $10,000,000, FDA plans to hire staff to analyze and evaluate the adverse event reports and determine appropriate responses; speed the identification and reporting of adverse events by enhancing existing data systems and linking them with other health care databases for reports involving medical devices, drugs and biologics; educate consumers and health care professionals on the importance of preventing and reporting medical errors; and, initiating a modernized AER system for dietary supplements. FDA plans to increase the number of annual inspections of clinical trials by more than 20 percent with an emphasis on high-risks trials.

Many patient deaths and injuries are associated with the use of FDA-regulated medical products. In medical devices, we estimate there are about 300,000 injuries related to device misuse annually, and we believe most of these errors are avoidable user errors that could and should be corrected. The FDA believes that roughly half of these deaths and injuries can be avoided by fully implementing its strategies. Thousands of lives and billions of dollars can be saved.

PROTECTING VOLUNTEERS AND THE INTEGRITY OF DATA IN CLINICAL TRIALS

FDA is responsible for protecting patients involved in clinical trials, and ensuring that the data gathered from these trials concerning the safety and effectiveness of a product are accurate when included in the product application. To do this, FDA

inspects stakeholders in all areas of the clinical trial process—manufacturers, clinical investigators, institutional review boards (IRB), and contractors to ensure that the data FDA receives are accurate and reliable.

Enhanced protection for human research subjects becomes more complex not only with the increasingly complex nature of the products being tested, but also with the increasing complexity of the design of clinical trials, the numbers of research projects and study volunteers and the diversity of patient populations included in clinical trials increases. The death of a volunteer subject in a gene therapy study has triggered considerable public concern in this area.

Gene therapy involves the treatment of genetic diseases by trying to replace a defective gene. As the field has developed, it has expanded to include a broad range of different potential therapeutic interventions. FDA's scientific leadership in this area was no more evident than when earlier this year, researchers from our biologics program were able to verify that a vaccine used in a gene therapy protocol at St. Jude Children's Research Hospital contained no traces of HIV as previously suspected.

FDA, whose product reviews depend on the validity of clinical trial data, monitors the entire system. The Agency conducts about 1,200 trial-associated inspections per year (1,100 domestic and 100 foreign), some of which involve extensive interviews with IRB members and examination of their records, procedures, and responsiveness to participants' concerns. FDA's efforts to protect human subjects generally emphasize education, outreach, and training programs for investigators and members of the IRBs.

FDA is requesting an increase in funding of $10,000,000 to increase the number of inspections by one-third, and in particular, target high-risk clinical trials. Inspections will cover clinical investigators, IRBs, sponsors, monitors, and contract research organizations. This increase will also focus on increasing scientific and regulatory training for FDA investigators to make them more efficient and effective; improving the inspection process for IRBs; and, enhancing follow-up compliance activities. We are also requesting funds to support the expansion of Medsun. We are establishing a network of hospitals to give statistically reliable data on device use and misuse. This will provide FDA and the community good feedback when problems occur.

Of the 1,200 trial-based inspections conducted annually, 600 are clinical inspections. This figure represents only two percent of the 30,000 clinical sites involving FDA-regulated products. The remaining inspections include Institutional Review Boards (300), sponsors/contract research organizations (75), and non-clinical (100) studies. While the Agency understands it cannot inspect every clinical study, added funds will enable FDA to increase its inspections and lower the risks to volunteers in clinical studies.

FOOD SAFETY

Each year, an estimated 76 million Americans get sick, more than 300,000 are hospitalized, and 5,000 die as a result of foodborne illnesses. The populations at greatest risk of serious illness are primarily the very young, the elderly, pregnant women, and those with compromised immune systems. The Centers for Disease Control and Prevention, (CDC) estimate that foodborne illnesses cost the nation more than $8 billion annually in medical expenses and lost productivity.

With your support over the past several years, FDA has made great progress in developing an integrated national food safety system. Working in collaboration with the Centers for Disease Control and Prevention, U.S. Department of Agriculture and State and local governments, we have put in place important prevention programs and, when food borne illnesses occur, we are identifying outbreaks of food borne illness earlier, translating into fewer deaths and illnesses. FDA's prevention programs include our seafood HACCP program, our Good Agricultural Practices program for fresh produce, our program for fresh sprouts, a greatly expanded import surveillance program, and a new HACCP program for fresh fruit and vegetable juices. These programs are science-based and are supported by a rigorous foundation of high quality research and risk assessment.

Although the U.S. food supply is among the world's safest, an increase in the variety of foods and convenience items has brought accompanying concerns about public health. In addition, the complexities of the food industry, from production to packaging, to shipping, are increasing.

The multi-agency Food Safety Initiative (FSI) initially focused on reducing the number of illnesses caused by microbial contamination of food and water. Recent efforts towards achieving this goal have included increased efforts in reducing Listeria

monocytoges contamination and the development of inspection and testing programs for shell eggs to reduce the risk of Salmonella enteritidis illness will be necessary.

We must also position ourselves to broaden the original focus of the FSI from only microbial contamination to include chemical contaminants and pesticide contamination, and other food hazards as well including food allergens.

Over fifty bioengineered foods are now marketed in the United States, most of which contain improvements that resist pests or herbicides. USDA oversees the planting and field trials of the crops, EPA has oversight of the pesticides that are engineered into crops, and FDA evaluates the food safety and nutritional aspects of the food. Although drugs produced using biotechnology have been widely accepted, the topic of bioengineered foods has generated much controversy, particularly about whether these foods should be labeled as genetically modified

The latest concern has been over the strain of bioengineered corn, reported in several food products than were never approved by EPA for that use. Currently, FDA has a voluntary process through which companies marketing bioengineered foods consult with the agency on safety and other regulatory issues prior to marketing. Recently, we issued a proposed rule to make the voluntary process mandatory and to require companies to provide sufficient data to establish that the bioengineered food is as safe as its conventional counterpart. FDA also issued guidance for public comment as the appropriate labeling for foods developed through biotechnology. However, in response to growing public concerns over bioengineered foods, and concerns about our current process, additional strong scientific expertise is needed in this area to increase our oversight and our laboratory analysis capabilities.

In fiscal year 2002, FDA requests a total increase of $14,700,000 for food safety activities, of which $9,400,000 is budget authority and $5,300,000 represents new fees for export certification. With the additional funding, FDA will:

—Expand the scope of food safety inspection beyond microbial contamination of foods to include chemical and pesticide contamination as well as to prevent cross-contamination with food allergens;

—Develop inspection and testing programs for shell eggs to reduce the risk of Salmonella enteriditis illness;

—Develop, in conjunction with NCTR, new methodologies to identify adverse effects of genetically modified foods, drug residues in foods and antibiotic-resistant strains of bacteria, using new molecular biomarkers and methods identified through genomic and proteomic technologies; and,

—Develop new risk assessment methods in collaboration with NCTR. New approaches will be validated for incorporating model uncertainties into microbial risk assessment.

Through a combination of FDA and State contract inspections, domestic firms that produce products at high risk of microbiological contamination have been inspected more frequently. Several years ago, such firms were inspected on the average of only once every three to four years. In fiscal year 2000, FDA inspected over 90 percent of the 6,250 high-risk establishments. In fiscal year 2001, the Agency expects to inspect 90–100 percent of high-risk establishments.

Section 801 (e)(4)(B) of the Federal Food, Drug and Cosmetic Act authorizes the recoupment of fees of up to $175 for export certificates for drugs, animal drugs and devices. This section, however, does not cover the collection of user fees for export certificates for foods. FDA spends millions of dollars in food safety resources to support the specific needs of U.S. food exporters. The enactment of food export certification user fees will allow FDA to devote more attention and resources to food safety activities benefiting the entire population.

INFRASTRUCTURE SUPPORT

GSA is in the process of consolidating many of FDA's headquarter facilities at the former site of the Naval Surface Warfare Center in White Oak, Maryland. Under the first phase of this project, the Center for Drugs Evaluation and Research (CDER) laboratory building is scheduled for completion in fiscal year 2002. While GSA is responsible for the construction of this multi-year project, FDA is responsible for the actual move of staff and equipment, as well as certain telecommunication and equipment costs. FDA is requesting $6,000,000 for one-time costs to equip and occupy the CDER laboratory portion of the facility.

With the support of Congress, the construction of the new Los Angeles laboratory, which analyzes twenty-five percent of all imported food samples, is now underway. To complete the project on time and move from the present facility by March 2003, when our lease expires, FDA is requesting $3,000,000 for a total of $23,000,000 to complete construction of the new laboratory.

DHHS has also formed a financial working group to oversee streamlining of financial operations in an effort to enhance coordination, eliminate duplication of effort and develop unified approaches to financial management. To further improve the Agency's financial management, FDA is requesting $8,300,000 to begin initial acquisition and implementation of a new financial system. The Agency is working to minimize costs by taking advantage of work already performed by other DHHS agencies similar to FDA in scope and transaction volume.

FDA is also requesting an increase in current user fees to enhance the review process of new human drugs and biological products and established fees for applications, establishments and approved products. The fiscal year 2002 budget request includes $204 million in user fees. Of this amount $20 million are new fees for which authorizing legislation is needed—$15 million for import activities and $5 million to provide certifications requested by food exporters. Drug and device exporters already cover such costs. PDUFA includes a total of $162 million, which includes an increase of $12 million for review of drug and biologic applications. MQSA includes $.5 million for inflation.

CLOSING

I thank you for the opportunity to share with you the breadth of FDA's responsibilities. FDA touches the life of every citizen through the medicines we take or feed for our animals, the blood products we may need one day, through the food we eat, the cosmetics we use, and, the medical devices in use today. Americans expect FDA to remain vigilant, to promote their health and well being, and to protect them from unacceptable hazards to our population at large, and to assure that they are adequately informed about the myriad hazards about which they will have to decide as individuals whether or not they are willing to accept. Significant investments must be made to keep this agency strong and at the forefront of the science upon which its regulatory mandate is based. The returns on that investment will be an agency that is equal to the challenges it faces and able to keep the confidence and trust of the American public. A strong FDA is clearly good for the consumer and industry alike, which in turn is good for the economy and health of our great nation. I appreciate your interest and continued support of the agency and its public health mission. This year is expected to be another exciting one for the Agency and I look forward to working with you as we face the challenges ahead.

Senator COCHRAN. Thank you very much, Dr. Schwetz. We appreciate your cooperation with our committee and the detail in which you present your budget request this morning.

BSE FUNDING

I notice that in connection with the mad cow disease, or BSE, issue that the budget requests $15 million in additional funds to protect against illness associated in Europe with the consumption of meat with BSE, or mad cow disease. What activities will the agency emphasize during this next year with these additional funds?

Dr. SCHWETZ. The additional funds will help us cover several areas. Clearly one of them is to be sure that we continue the inspection of those facilities that are potential sources of getting ruminant proteins into other ruminants. So, a fair amount of it will go for our inspection capabilities for rendering plants, for feed mills, and for protein blenders that could be the source of a problem.

We work with the States to get this job done. We talked in the past about getting through 100 percent of the inspections by September, but that is not the end of the need. The need is for us to be inspecting these sites on a continual basis, so the additional money allows us to have more money go through to the States to get the inspections done, and more people within the FDA to continue to do the inspections.

Another part of it has to do with education and communication with the people out there who need to know more about what the 1997 regulation actually means and how serious we are about implementing it. We still are encountering people who should know what the 1997 rule said who do not seem to know all the details of what is expected under that rule. So, part of the money will go for continuing to educate the people who need to know about the problems of keeping records, of commingling feeds, of labeling feeds in the feed mills and rendering plants so that we avoid exposure.

Another part of it has to do with research. It is amazing, for as long as this kind of a disease has been around, that we do not know more about the cause of the disease and how it is transmitted from one animal to another, in some cases from one species to another. We do not have adequate methods yet for being able to very easily detect the presence of ruminant protein in feed products. So, that is one of the areas of research.

Another one has to do with being able to identify the prions in materials that might be contaminated with the prion that is associated with spreading the disease.

So, between inspections, additional educational activities, and research, those represent the kinds of major activities that we will be moving forward on.

IMPORT INSPECTIONS

Senator COCHRAN. While FDA has responsibilities for examining and inspecting imports, it is clear that the import numbers are increasing. We are importing so much more foodstuffs and other items that require inspection or are subject to our inspection laws. I wonder how FDA is able to cope with these increases, and I wonder whether the funding proposed in the next year's budget will give you a better opportunity to physically inspect and examine more of the entries being offered for import into the United States?

Dr. SCHWETZ. Additional money that we are asking for will certainly improve our ability to deal with import questions. The money is not the only thing, though, that we depend on for improving our ability to manage imports coming into the country. The money, of course, will help to put more FDA people in those situations at ports of entry or outside the United States to help ensure inspections outside the United States, as well as at the import sites.

In addition, we are working with a number of other groups who can help us to manage the risk that imports represent. We continue to work closely with Customs and with USDA, so that we use some of the capabilities that they have to help us with import alerts, and with the inspections at borders. They are very willing to help us. So, part of the strategy for the future to improve our ability to manage the import concern has to do with working more closely with Customs and with USDA to use the civil money penalties that they have and to use databases that they have.

We are trying to move up on knowing for sure who the problem importers are and be able to deal with them more effectively so that when a shipment comes in from a foreign company, or organization, that has a history of violations, that we are able to deal with them more quickly than we can today by virtue of having bet-

ter record systems to be able to alert the inspectors immediately that this is a shipment of potential concern and deal with it accordingly.

We are trying to mark imports that come in that are not allowed to be imported so that they are more easily identified from the standpoint of coming to another port and coming into the country through another site.

So, there are a number of things that this money will help us do, everything from more people to more infrastructure, working with other countries to develop the capabilities of doing inspections by some of their people through agreements on equivalency of inspections. So, there are a number of different fronts that we are working on, but clearly having the resources to put more FDA people behind this is very important.

PRODUCT WITHDRAWALS—POST MARKET

Senator COCHRAN. You also have responsibilities for what is called postmarket surveillance. These are related to drugs in one instance which come onto the market and are available to patients more quickly in greater number now than ever before. You mentioned in your statement that 1 to 3 percent of products approved each year have to be removed from the market because of serious side effects that are discovered after they are in the marketplace. Is this a fairly usual percentage, or is this increasing? Are you troubled by this factor, and do you need more support in this area from the budget point of view?

Dr. SCHWETZ. We are troubled anytime a product has to be withdrawn from the market because it suggests that one of several things happened.

First of all, we cannot collect enough data ahead of time to assure that every product that is approved will be safe under all conditions of use. So, it means that we did not quite have enough information yet and we learned more as we expanded from a small group of maybe tens of thousands of people to millions of people. There are rare events that you discover when you scale up to a larger level of use.

It could mean that we did not anticipate some conditions of use or some health conditions in which a product might be used, and we learn more after the product is approved than we learned about it during premarket as we watch for those adverse events. So, anytime an adverse event happens, it is important to us.

But there are more drugs for which adverse events are being recognized now and more drugs that are being withdrawn, but the percentage of new drugs that are approved that are withdrawn has not increased over the last 20 to 30 years. The increase reflects the larger number of drugs being approved, not that the drugs being approved are more dangerous than they were before or that we are looking harder for effects. We are looking hard for whatever we can use to evaluate the safety of drugs after they are approved. But on a percentage basis of approvals, the withdrawals have stayed the same for the last two or three decades.

PRESCRIPTION TO OTC

Senator COCHRAN. There was a story in the morning paper about drugs that were once described as having serious side effects and requiring prescriptions now should be considered as over-the-counter medicines because the side effects are not nearly as serious as the FDA or somebody said they were. What is your reaction to that problem, and is the FDA monitoring that to make sure that prescription drugs are not continued to be recognized as prescription drugs if the reason for it, in the first place, is no longer appertaining to those drugs?

Dr. SCHWETZ. Well, usually the manufacturers come forward and request that a drug, for which there is now a considerable amount of clinical experience, be considered for a switch from prescription to over-the-counter. So, it is something that we have looked at for many drugs, and a lot of drugs that were prescription are now over-the-counter. So, it is a usual practice for drugs where the consequences of taking them represent minimal health risks.

DIETARY SUPPLEMENTS

Senator COCHRAN. This is my last question, too. I assure my colleague, Senator Johnson, I am going to stop asking questions here.

You recently came down to the University of Mississippi, and I was fortunate enough to be able to be there and hear you deliver the annual Hartman lecture that is sponsored by the university's pharmacy school. You talked about dietary supplements and the challenges being faced with regulation or non regulation in that area. FDA has warned the public that there could be risks involved that consumers may not be able to discern. You noted some adverse event reports for certain supplements and noted that they were worrisome.

Could you tell us, in summary, what are the risks to the consumers in our country that stem from taking dietary supplements? How can they be assured that these are safe and whether or not the public needs to be warned in some formal way about the risks involved?

Dr. SCHWETZ. Some dietary supplements clearly are safe and are beneficial to a lot of people. But as you point out, there are concerns for some of the dietary supplements from the standpoint of a number of aspects that they might be causing harm.

One of them is that some dietary supplements are known to interact with drugs that are being given to a patient for a specific disease, and they might change the availability of that drug that is being given to actively treat a disease. A dietary supplement in combination with that might make the drug less bioavailable or it might cause metabolic changes so that the drug that you are expecting to have a beneficial effect is in a different form because of a change in metabolism related to the presence of a dietary supplement. So, the interaction with other drugs that are being taken or other substances that are being taken, even if it might not be a drug, is one concern.

Secondly is the inherent toxic properties of some of the components of dietary supplements themselves. So, there are components of some dietary supplements where you might expect that you

would see a toxic effect to the nervous system or to the kidneys or the liver or whatever the target organ might be.

Another concern about dietary supplements is that they are derived from plants that grow under widely varying conditions, and we have known for many years that in times of drought, for example, there are chemicals in plants that are not there in good growing conditions. The possibility exists that some of those toxic materials might find their way into some of the batches of dietary supplements.

The other concern is that people rely on dietary supplements when they should be seeking a more aggressive form of therapy. We are concerned if a person takes a dietary supplement to treat a problem when in fact they should be seeking more serious medical care.

One of the things that we have been working on to prevent some of these surprises is the use of Good Manufacturing practices to help standardize the manufacturing processes for these products. One of the dangers that I talked about when I was at Ole Miss is the fact that quality control is not as tight as we would like it to be. It is not as tight as it is for drugs. So, in many cases we do not know for sure what the active ingredient is in a dietary supplement that accounts for its effect. In addition, we do not know if the amount that was in this batch is also going to be in the next batch and the next one. So, Good Manufacturing practices will help that.

The other thing that we are working on and that is part of the 2002 budget is having a greater capability for tracking adverse events that might be associated with dietary supplements. There was a recent report that suggested that one of the things the FDA should have is a more extensive capability for tracking adverse events from dietary supplement use. So, that is something that we are also working on.

Senator COCHRAN. Thank you very much. A very interesting response.

Senator Johnson.

GENERIC DRUG RESOURCES

Senator JOHNSON. Well, yes, thank you, Chairman Cochran.

Dr. Schwetz, over the next 5 years the patents on about $34 billion in sales of brand drugs are going to expire, and studies have indicated that generic drugs typically enter the market priced about 30 percent less than the brand product, and consumer savings increase up to 80 percent on average over 2 years. A 1 percent increase in use of generic drugs will result in about $1 billion in savings to consumers and health care providers, we are told.

But with this extraordinary number of applications for generic drug approvals that will come before the Office of Generic Drugs in the future, I wonder whether the OGD will have sufficient resources to meet the 180-day statutory time frame necessary to approve these generic applications.

How do you anticipate the Office of Generic Drugs managing the prospect of a significant influx of abbreviated new drug applications, and has the administration requested an increase in resources to meet the demand? And do you feel that the FDA ought

to be more aggressively involved in consumer education programs designed to increase the public awareness of generic drug options?

Dr. SCHWETZ. Thank you for your questions because we are trying to improve our timely review of the generic drugs. There is a request for additional money to provide pay costs for our people to get work done more quickly than we have in the past to try to meet our statutory requirement. So, part of it is having enough people to get the job done.

One of the reasons we are working so hard for the pay related increases this year is that when we put more money into a program, like generic drugs, the money is actually used for that program as opposed to paying the mandatory salary and inflation needs, as we have in the past, where it may look like we have put more money in it, but actually what we are doing is paying the salaries of the people who are there. Over those years, we have actually lost people from the agency to be able to do some of these tasks. So, the mandatory pay increase will help that, plus any amount of money that would be available to help hire additional scientists and physicians to do this work.

Part of it is also to tap into databases that will give us additional information about the effects of these drugs under use conditions.

In addition to getting more data and more people, as you point out, we are making an effort to have more information go out to the public to increase confidence in generic drugs. It is our desire to make more information available to the public to allow the people to decide whether they want to use generics or not.

Senator JOHNSON. How are you doing that?

Dr. SCHWETZ. It is probably best to ask Dr. Woodcock, the head of our Center for Drugs, to expand in more detail on how that will happen. Janet?

Dr. WOODCOCK. Good morning. There are several information campaigns that we are embarking on. One is directed to consumers to inform them of basically the scientific basis for making generic drugs available because there is quite a belief out there amongst the patient population that they are not as good and that they would be getting an inferior product. And we really think we can stand behind the generic drugs that we approve, that they are pharmaceutically equivalent to the innovator product.

Another large group of people we need to reach better is the pharmacy community because they still maintain the belief, in some cases, that generic drugs are inferior. So, we need to target toward them more scientific information on how we do these approvals so they understand the scientific basis for generic drugs.

Senator JOHNSON. Is the President's proposed budget adequate for this purpose, or do we need to be looking at that as this committee examines the FDA budget?

Dr. WOODCOCK. We are beginning these campaigns now in the current fiscal year and we hope we will able to continue them within the President's budget next year.

BSE ENFORCEMENT ACTIONS

Senator JOHNSON. Thank you.

Just one last question. I appreciate Dr. Schwetz's discussion of this issue. Let me just follow on a little bit on the BSE issue, and

that is to the steps that the FDA is willing to take if a feed mill or rendering plant does not meet your September 30 deadline for compliance with your feed mixing ban and whether the reprogrammed funds, $2.4 million in 2001 within the FDA's Center for Vet Medicine, will be sufficient to handle these aggressive inspection and reinspection plans.

Dr. SCHWETZ. Yes, they are sufficient from the standpoint that we react to the most egregious problems that we have. So, the money that we have available will certainly be used for those situations that represent the greatest risk of BSE being spread. But since we used money from the contingency fund, and money from other agency activities to do more inspections and other work on mad cow disease this year, the additional money that we are asking for will help to replenish some of those activities and let them go on as they were before, and allow us to do new things on mad cow disease as well.

Senator JOHNSON. And as to what happens to plants that do not meet the September 30 deadline?

Dr. SCHWETZ. I would ask if Dr. Sundlof could help to answer that question.

Dr. SUNDLOF. Thank you and thank you, Senator Johnson.

We have stepped up some of the enforcement actions against firms that continue to fail or fail in the first place to comply with the rule, and now we are going to direct warning letters. As soon as we get to a firm that we find out of compliance, they immediately get a warning letter.

There were about 834 firms that we found to be out of compliance. On reinspection, we are finding about 93 percent of those are now in compliance on second inspection. That means that there is still 7 percent of those firms that are not in compliance. We have issued 31 recalls now of feed. So, we are really stepping up the enforcement aspect of the 1997 rule. With the funds that will be available in the next fiscal year, we intend to increase that even more.

We are putting all of the information on the firms that were inspected on our website. So, anybody can go to our website now and find out which firms are in compliance, and which firms are not in compliance. We think that is going to have immeasurable impact on bringing people around to compliance with the rule.

Senator JOHNSON. Well, I appreciate your testimony on this. While I think that the FDA has acted in a very timely, aggressive manner, it cannot be, I think, overstated how catastrophic an occurrence of BSE in the United States would be to the livestock industry and to our agricultural economy in general. So, I look forward to continuing to work with you on these issues. Thank you.

Mr. Chairman, I yield back.

IMPORTATION OF CATFISH

Senator COCHRAN. Thank you very much, Senator Johnson.

There is one parochial issue in our State of Mississippi that I am going to ask you about now. We have a flourishing catfish industry in our State. It has grown very much over a long period of time. They are encountering difficulty with import competition from Southeast Asia, particularly Vietnam, of seafood products that are

labeled as if they are the same products as grown in our domestic catfish farms in Mississippi and other States. The problem is that while FDA sent out an import alert calling attention to misbranded seafood and possibly the presence of Salmonella, there is some question about whether these alerts have been effective and whether the interdiction of improper shipments of seafood have been effective to protect the consuming public or to fully advise the consumers what they are buying.

My question is whether the proposed budget for FDA's Center for Veterinary Medicine, Office of Surveillance and Compliance provides the funding to facilitate the development of a methodology and technology necessary for the proper testing of import tolerances for banned substances? And does FDA's Office of Seafood have the resources it needs to address the increasing volume of imported seafood both at the border and in the U.S. marketplace?

Dr. SCHWETZ. The increases in budget certainly move us in the direction of being able to do more than we have in the past. Regarding the possibility of more accurately being able to detect catfish that are some other varieties of catfish coming in from foreign countries than what we would call catfish here, I would ask Mr. Levitt if he would provide additional help on that.

Senator COCHRAN. Mr. Levitt, you may come forward.

Mr. LEVITT. Thank you.

As you point out, there are responsibilities both for my center, the Food Center, and for the Center for Veterinary Medicine. The import alert, as you correctly point out, is designed to try and be sure American consumers know what they are buying and if there are differences in the kind of fish, they are readily apparent to consumers. Again, as Dr. Schwetz said, the money we have for greater surveillance over imports will move us in that direction, but also the numbers, you have to realize, of imported foods, as well as all of our products, are growing dramatically. We have seen over the last 8 years a quadrupling in the number of food imports in the United States. So, we are continuing to do, as Dr. Schwetz pointed out, a number of different things to address that. Part of that is through the import alert, looking to be sure that the fish is properly labeled and identified for the consumer. So, we will be able to do more of what you are asking.

PATIENT SAFETY TASK FORCE

Senator COCHRAN. Dr. Schwetz, you indicate in your testimony that the Department has established a patient safety task force to integrate the collection of data on medical errors with a goal of reducing medical errors by 50 percent over a 5-year period. What is the FDA's role in this effort and what kind of baseline, if any, has the task force established for measuring progress in meeting its goal?

Dr. SCHWETZ. I will let Dr. Woodcock expand on the answer to that, but there are a number of ways that we are trying to prevent medical errors. For example, whether or not a name that is requested for a new drug is a name that looks like other drugs and could cause confusion. The fact that information on labels might not be clear enough to have people read the label quickly and draw the right conclusion. If they are only going to read part of the label,

do they read the part of the label that conveys the most critical information at the very beginning. Once someone says they have read the label, have they really drawn the wrong conclusion or the right conclusion from what they have seen? So, there are a number of things.

As we test these kinds of new labels and new drug names on groups of people who have not been involved in the review of the drug itself, but are kind of naive to the information, we are trying to improve the quality of information that there is that users would eventually have, either physicians or other people in health care or the consumer himself, so that the right conclusion is drawn from the information.

But, Dr. Woodcock, would you expand more?

Senator COCHRAN. Dr. Woodcock.

Dr. WOODCOCK. Certainly. The collaboration amongst the four agencies is basically intended to make sure no information is lost. I think the best way to explain this is by an example.

The Agency for Health Care Quality Research is pursuing reporting of medical errors, as you know. One of the defined medical errors that might be reported into those systems is a malfunction of a medical device. We want to make sure that when errors or problems like that are reported into State or Federal reporting systems, not to the FDA, that the FDA can respond because we know about them. A malfunctioning device is really under the purview of the Center for Devices. It is something the Device Center would have to take action on to improve the design of that device or have better warnings and precautions around it or maybe even take it off the market.

So, the concern is with the interest in reporting systems for medical errors—medical errors are not as straightforward as one might think and often they involve a regulated product. For example, blood is another good example of where there are a lot of errors involved in administering blood, some of them fatal, but they involve the Biologics Center, the way blood banks operate, the way blood is labeled and so forth.

So, we are trying to reduce duplication of reporting requirements on facilities, as well as make sure the information is shared with the relevant parties so they can take whatever responsibility they have.

BLOOD ACTION PLAN

Senator COCHRAN. Thank you.

That leads to an observation. In fiscal year 1998, in the appropriations bill, there was a statement of managers dealing with development of a blood product tracking system, a notification system. FDA issued an advance notice of rulemaking in 1999, but as I understand it, it has not completed the implementation of a blood products safety mechanism. I am told that manufacturers have sought to establish a voluntary notification system through a third party that has had some problems.

A lack of confidence in the system has resulted in poor enrollment by the hemophilia community.

My question is what will the FDA do to move forward to finalize its proposed rule to require manufacturer tracking of blood-derived products and prompt patient notification of adverse events?

Dr. SCHWETZ. I would ask if Dr. Zoon could answer that question.

Dr. ZOON. Thank you very much for the opportunity.

As you know, the agency has been working on a blood safety action plan, and this has been in coordination with but the National Institutes of Health and the Centers for Disease Control. One element of that blood action plan did involve the advanced notice of proposed rulemaking that you have mentioned. This part of the blood action plan, as you also alluded to, is currently being conducted on a voluntary basis by the industry. We are very interested in moving this initiative forward. There are multiple competing parts of the blood action plan, but this is one that we appreciate your interest in and will look into its status and move it along.

NARMS

Senator COCHRAN. Thank you very much.

FDA has been analyzing the effects of antibiotic use in food-producing animals through the National Antimicrobial Resistance Monitoring System, specifically looking at antimicrobial resistance. What agency decisions or priorities have been affected by use of this National Antimicrobial Resistance Monitoring System and the data that has been collected?

Dr. SCHWETZ. The data from NARMS have helped to support decisions within the agency now and during this past year. The data we are collecting through this monitoring system give us a good baseline of information upon which to make decisions on other drugs where we are just beginning to collect information and new drugs that will be approved in the future that have antibiotic activity.

During this past year, we have been tracking the information through this NARMS system. What we find from the use of fluoroquinolone drugs in the poultry industry and the increased incidence of antibiotic resistance that we saw with Campylobacter led to the statement by the agency that we were withdrawing the approval of fluoroquinolones in the poultry industry. So, that is one example of where the data have helped us to review information that led us to do a risk assessment of fluoroquinolone use and, in the specific case of poultry, to make a decision that we should withdraw the approval of it. It can still be used in other farm species but not in poultry.

We have also begun to look at information, or other antibiotics and the use and their correlation with what we are seeing in NARMS. One that we are looking at right now is a drug called virginiamycin, which has a human drug counterpart. We are looking at the information. We are reviewing what is available on virginiamycin as another candidate that might be increasing antibiotic resistance, and eventually if we have enough information, we may do a risk assessment of the impact on humans. That is another example of where we will be doing that.

Senator COCHRAN. We had a hearing exploring this in another setting last year and we learned an awful lot about how antimicrobial resistance was becoming a very, very serious problem,

not just from the animal feed standpoint, but the prescription of drugs that are unnecessary in a lot of cases. Somebody has a cold and they go see the doctor and he gives them an antibiotic, and they may be suffering from a sinus condition that is not an infection and would not respond to that drug when it was given. But that is what the patient wants. That is what the doctor prescribes.

It has so many aspects. Sometimes we do concentrate in one area and forget about the other things that can be changed that will help deal with the problem too. But these are very serious problems and very challenging areas, I am sure, of inquiry. The more we know about it, the better off we will all be. Right?

Dr. SCHWETZ. Yes.

Senator COCHRAN. Or so we hope, anyway. If we have got sense enough to act on the facts rather than our suspicions.

INFRASTRUCTURE FUNDING

Last year we provided funding in the buildings and facilities area of the budget for the first phase of construction of the new Los Angeles laboratory. I know that was a high priority on the FDA's wish list, and I am curious to know what progress is being made on the project.

Dr. SCHWETZ. There has been considerable progress made on the Los Angeles laboratory. Thank you all for your support to keep this moving. The $3 million that is proposed in the budget for 2002, plus the $20 million that we have received already has gotten us started, and will bring the Los Angeles laboratory to completion. This is a very important lab for us because about 25 percent of the foods that we inspect that come into the country come through that laboratory. So, we are making good progress on completing that.

Senator COCHRAN. Another budget request that deals with equipment and laboratories is the $6 million requested to equip and occupy a new laboratory for the Center for Drug Evaluation and Research as part of the agency's long-range move to a consolidated headquarters in Maryland. Is that project on schedule, and will all of the $6 million be needed in the next fiscal year?

Dr. SCHWETZ. That project is moving. The ground breaking for the Center for Drug facility happened last fall. So, the GSA funding is what is going to build that building, and the $6 million that is in our budget will help to move the Center for Drugs people into that facility as the first phase of consolidating all of our activities out there on that campus, all of the activities that relate to the medical products, the Center for Drugs, the Center for Devices, the Center for Biologics. Eventually the FDA Office of the Commissioner would be there and the headquarters for the Office of Regulatory Affairs, the field operation. So, eventually we are going to be bringing all of that onto that campus.

I would ask Mr. Weber if he would offer any additional information about whether this is on time or not.

Mr. WEBER. The project is on time. The community is very supportive and I think they are making sure that the project stays on time. We are expecting to move in between the end of 2002 and the beginning of 2003. Some of the funds would be needed before the staff moves in for telecommunications costs and things like that, and the money is being requested as 2-year funds so that if some

of the project is funded in 2003, we would have the money carried over for that purpose.

Senator COCHRAN. I appreciate very much your attendance at the hearing this morning and the response to our questions and the cooperation with members of our subcommittee in answering their special areas of concern.

ADDITIONAL COMMITTEE QUESTIONS

We will continue to review the budget and we may submit questions in writing that we did not ask this morning. We hope that you will be able to respond to them in a timely fashion.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) OR "MAD COW DISEASE"

Question. "Mad Cow Disease", or BSE , is of great concern today. Please describe FDA's role with respect to protecting this country from the threat of BSE, in terms of what activities FDA undertakes, and which regulated products BSE may affect.

Answer. One of the goals of FDA's activities regarding transmissible spongiform encephalopathies, or TSEs, is to minimize the risk of the introduction of bovine spongiform encephalopathy, or BSE, into U.S. cattle, and to minimize the risk of amplification of BSE in the U.S. cattle herd, if BSE were ever to be found in U.S. cattle. On August 4, 1997, FDA's regulation entitled "Substances Prohibited From Use in Animal Food or Feed; Animal Proteins Prohibited in Ruminant Feed", 21 CFR 589.2000, became effective. The purpose of the rule is specifically to meet this goal. FDA has developed a three-pronged approach in its efforts to realize 100 percent compliance with the 1997 feed rule.

The first prong is education. Providing education for both licensed and non-licensed feed mills, as well as State and Federal inspectors conducting FDA inspections, helps to ensure a full understanding of the feed rule and increases compliance. State feed control officials and trade organizations representing renderers, feed mills, and other parts of the organizations representing renderers, feed mills, and other parts of the livestock feeding industry have played a large role in helping to educate groups within the feed industry. The FDA has also conducted more than 25 individual training sessions for FDA district and State personnel.

The second prong is a strong and visible inspection presence. FDA's goal is to inspect 100 percent of all known renderers, protein blenders, and feed mills, and to inspect as many ruminant feeders as possible. The Agency has coordinated inspections with State feed control officials so that all firms found in violation will be reinspected to confirm that corrective actions have been implemented. FDA plans to continue to monitor the status of compliance with the rule by firms handling prohibited material, such as meat and bone meal, by maintaining an on-going inspection and reinspection program. In addition, FDA plans to continue to monitor the status of the industry for compliance with the rule by inspection and implementation of a sampling program to check for the presence of prohibited proteins in ruminant feeds.

The third prong is enforcement action. FDA is prepared to initiate enforcement action, under the Federal Food, Drug, & Cosmetic Act, FFD&C Act, to ensure compliance with the feed rule. Actions may include issuance of warning letters, product seizures, injunctions, or prosecutions, in addition to firm-initiated recalls to remove adulterated or misbranded products from the market place.

In addition, FDA is enhancing its vigilance at U.S. ports of entry for regulated products which BSE may affect, such as animal protein, including feeds. Other regulated products BSE may affect are gelatin-containing products for oral consumption, such as candy and capsules, as well as cosmetics and dietary supplements. FDA issued an Import Alert on January 20, 2001, and a new Import Bulletin on March 1, 2001. These new documents provide a detailed second-line system for identifying at the ports products about which FDA has potential BSE concerns. FDA has coordinated its actions with Customs and USDA's Animal and Plant Health Inspection Service, APHIS. It is important to note that the FDA, as well as Customs, and APHIS, are dependent upon the import community, which includes brokers, import-

ers, and shippers, for the entry and manifest data with which to identify products consisting of, or containing, materials of concern from BSE and BSE-high-risk countries. Products which are not declared correctly or are described by importers or brokers so as to hide their animal origin or country of origin, may not be detected through FDA import monitoring.

In order to achieve and maintain a sufficient level of accuracy in data on products submitted for importation into the U.S., FDA has trained importers and brokers in the submission of such data and periodically evaluated the quality of such data by company data submitted with original entry documents, These are labor intensive activities, and our resources are severely limited.

Question. FDA recently sought and received an apportionment of $2.4 million in unobligated contingency funds appropriated in fiscal years 1990 and 1991 to reimburse FDA for "extraordinary costs" associated with the BSE threat. What are the "extraordinary" costs associated with BSE which caused FDA to use the contingency fund?

Answer. The extraordinary costs related to the BSE threat were not provided for in budget estimates, because of the nature of the way this issue evolved during the current fiscal year. The Animal Drugs and Feeds program is relatively small in size and the use of this Fund provides a way to deal with this emergency without disruption of important ongoing programs. The unusual costs related to the BSE threat include supplies, travel, and contracts, including contracts with the States to do product screening and inspections.

Question. The statute requires that emergency contingency appropriations be available only "to meet unanticipated costs of emergency activities not provided for in budget estimates" and "after maximum absorption of such costs within the remainder of the account". Please specify how the FDA activities associated with the BSE threat were determined to have met each of these two requirements.

Answer. In order for FDA to deal with the unanticipated need to screen certain products to prevent BSE, we have been able to reassign some of our existing staff from relatively lower-priority work to the BSE-related work.

Question. How does the total level of funding for BSE-related activities proposed for fiscal year 2002 compare with the levels provided for each of fiscal years 2000 and 2001? Please provide a comparison of the activities associated with BSE undertaken in each of fiscal years 2000 and 2001 and proposed for fiscal year 2002, including the level of funding and staff years for each activity.

Answer. In fiscal year 2000 FDA spent approximately $3.8 million on TSE related activities. These activities included: Statutory and non-statutory inspection of feed mills, renderers, and producers, through the use of FDA and State contract inspections; conducting research on blood and blood products; developing regulations to screen and test blood donors for BSE/CJD; reviewing and approving vaccines and therapeutic biologic products of which many use human or animal materials in production; and, conducting applied regulatory research to understand TSEs.

In fiscal year 2001 FDA had planned on spending approximately $3.8 million, but given the recent events related to BSE in Europe, FDA has had to adjust its plan within the animal drugs and feeds programs. Adding to the base resources from fiscal year 2000, FDA will internally shift resources from lower priority programs to cover domestic inspections and import entry review and import label examinations. In fiscal year 2001 FDA also tapped into the contingency fund for one time funds of $2.4 million. These funds covered additional State contracts for domestic inspections, training for FDA employees, and importers, scientific equipment for laboratory analysis, methods development and validation, IT enhancements, market studies to identify food and cosmetic products containing specific risk products, and overtime and travel costs incurred by the field. In fiscal year 2002 FDA has requested an additional $15.0 million for BSE activities.

[The information follows:]

Foods Program, $1.1 million

Expand work efforts to identify food and cosmetic products containing brain, spinal cord, and other specific risk materials (SRMs); the origin of the animal; and country of origin;

Research the risk factors and mechanism for CWD which affects elk, deer and other domestic game/pen-reared animals;

Participate in international BSE meetings to ensure safety of the U.S. food supply; and

Provide up-to-date information on the emerging public health issues to the public.

Biologics, $0.5 million

Address the potential BSE threat to the safety of biological products. Two biological product areas affected include the safety of the blood supply and the safety of vaccines derived from bovine-sourced material.

Animal Drugs and Feeds $13.1 million ($2.2 million Center, $10.9 million Field)

Conduct targeted BSE inspections of all renderers and licensed and non-FDA licensed feed mills handling prohibited material, such as meat and bone meal on a yearly basis, and conduct reinspections of those with compliance deficiencies, taking appropriate enforcement actions for repeated or egregious violations;

Leverage with State agencies by funding approximately 4,000 contract inspections of feed mills and renderers, and conduct compliance, follow-up, and audit inspections to State contracts;

Review and evaluate field inspection data and take enforcement action when necessary;

Develop a domestic sampling plan, collecting and analyzing 600 domestic feed, and feed component samples for BSE related contaminants. In addition, the Animal Drugs and Feeds Program will increase the number of import samples by 600. This sampling plan will ensure proper labeling of animal feeds and feed components;

Provide intensive line entry and label review, when appropriate, of an anticipated 175,000 import line entries for use in domestic commerce for the Animal Drugs and Feeds Program by expanding import staff by 17 FTE;

Conduct additional training for Federal and State inspectors on the BSE feed regulation, update them on the current European Union situation, Animal Plant and Health Inspection Service (APHIS) authority and approach, and what to look for and how and when to sample;

Develop and validate detection methods for BSE, collaborating with experts and foreign scientists to assist in developing BSE methods;

Modernize the existing information technology infrastructure to facilitate electronic inspection reporting and information collection and distribution; and,

Educate industry and the general public on BSE through public meetings, publications, and FDA's website.

Other Activities, $0.3 million

Provide advice and counsel on legal matters, render opinions, and support rulemaking proceedings, legislative matters, policy deliberations, and domestic and international negotiations; and,

Provide litigation support for enforcement, defensive and third-party matters.

BLOOD SAFETY

Question. The conferees, in the statement of managers accompanying the fiscal year 1998 appropriations Act, requested that FDA move forward with development of a blood product tracking and notification system. FDA issued an advanced notice of proposed rulemaking in August 1999, but it has not completed implementation of this important blood product safety mechanism. When will the FDA move forward to finalize its proposed rule to require manufacturer tracking of blood-derived products and prompt patient notification of adverse events?

Answer. The advance notice of proposed rulemaking, or ANPR, "Plasma Derivatives and Other Blood-Derived Products; Requirements for Tracking and Notification," was published on August 19, 1999, in the Federal Register. The development of the final rule on the blood product tracking and notification system is part of Blood Action Plan in coordination with the National Institutes of Health and the Centers for Disease Control and Prevention. There are competing parts of the Action Plan. Programs for notifying recipients in cases of issues related to blood product quality and safety are presently voluntary. FDA is expediting this rulemaking process. Comments to the ANPR have been organized and are being reviewed. We anticipate that the proposed rule will be published by June 2002, and the final rule will be published by August 2003.

APPLICATION REVIEW PERFORMANCE

Question. You indicate that there has been sustained high performance in application review for prescription drugs, particularly for new drugs. Yet, the performance is not as high—in fact, far below statutory requirements—in other product areas. Where do you see gaps in application review, and is closing those gaps a priority?

Answer. There are four types of applications where there are or could be significant gaps in review performance. We are trying to close the performance gaps for

all of these applications by using additional resources when available, redirecting resources to higher priority applications, and by improving the review process.

During fiscal year 2000, FDA approved 232 Abbreviated New Drug Applications, ANDAs. This is an increase over the 198 approved last fiscal year. Of these, several represent the first time a generic has been approved for a product. Significant strides were made toward a paperless review environment. With $1.5 million in funding earmarked for satisfying information technology needs, FDA purchased upgraded hardware and software, and contractual support for the review of electronic submissions.

Beginning in January 1997, FDA implemented a procedure to reduce approval times by allowing reviewers to utilize a facsimile amendment. Facsimile amendments are requests from reviewers to applicants for clarification/resolution of minor deficiencies. This procedure resulted in review times exceeding 6 months, but shortened overall approval times. In June 2000, a slight modification to the facsimile amendment procedure was made and this modification to the procedure will better enable FDA to act upon its target percentage of ANDAs within 6 months.

The inability of FDA to meet the 6-month goal is also a function of the existing backlog of chemistry and microbiology reviews. To address these backlogs, FDA restructured the review process, added reviewers, and added project managers. FDA believes that these initiatives will reduce the chemistry and microbiology backlog allowing reviewers to get to the applications sooner and lessen the effect of the facsimile amendments on the 6-month review goal.

It is widely recognized that meeting the current statutory time frame is an unrealistic goal for all food and color additive petitions, especially the more complex ones. The impracticability of the current time frame was acknowledged in the report from the June 1995 House hearing, and a recommendation to change the time frame to, 360 days of receipt, was included in the Agency's testimony before the House Committee on Government Reform and Oversight in 1996.

Since the 1995 and 1996 hearings, the Food and Drug Modernization Act, FDAMA established a notification process for food contact substances. The premarket notification program began to fully operate on January 18, 2000. Several factors will influence future performance in reviewing food and color additive petitions within 360 days. The most important of these factors is the implementation of the new premarket notification process. By fiscal year 2001, we expect that many of the simpler food additive petitions that can be completed within 360 days will be filed under the notification program and thus decrease the workload for food and color additive petitions. However, since the remaining petitions are likely to be more complex and take more time to review, Agency performance may decline initially. Similarly, the premarket notification program may also initially increase the fraction of pending petitions that are overdue because many recently submitted petitions for food contact substances will have been converted to notifications. Once the notification and the petition review processes are well established, FDA expects performance on food and color additive petitions to increase substantially toward full performance in succeeding years beginning in fiscal year 2002.

The Animal Drugs and Feeds Program does not have sufficient resources to review and act on all new animal drug application actions received within the statutory time frame of 180 days. Recent resource increases in the drug review area will allow the Center for Veterinary Medicine, CVM to recruit and hire review scientists. These increased personnel resources will boost our compliance rate from 75 percent in fiscal year 2001 to 80 percent in fiscal year 2002.

In fiscal year 2000, FDA performance was 96 percent for the premarket device applications received in the first six months. The performance strategy is to redirect resources from low-risk to high-risk devices. Also, efforts such as early meetings with manufacturers, modular review, streamlined reviews, and product development protocols have resulted in faster reviews. PMA submissions will continue to increase in fiscal year 2001 and fiscal year 2002 due to technology advances, increased use of computerized and miniaturized devices. Therefore, it is expected that fiscal year 2002 will not only be a year of more submissions but submissions will require multiple reviewers with different areas of expertise. Reviews will be more complex and take even more science time. This could adversely affect review performance in the future.

I would be happy to provide the information requested arrayed according to application type, relevant statute, and fiscal year 2000 performance.

[The information follows:]

Time frame	Relevant statute	Fiscal year 2000 performance [1] (percent)
Review abbreviated new drug applications (ANDAs) within 180 days. (Drugs) [2].	FFD&C Act Sec. 505(j)	56
Review Food and color additive petitions within 360 days (Foods). Goals are based on 360 days. The statute provides for 90 days with one additional 90-day extension for a total of 180 days. [3].	FFD&C Act Sec. 409(c)(2) for food additive petitions and & Sec. 721(d)(1) for color additive petitions..	77
Review new animal drug applications (NADAs) & abbreviated new animal drug applications (ANADAs) within 180 days. (Veterinary Drugs).	FFD&C Act Sec. 512(c)(1)	74
Review premarket approval applications (PMAs) within 1800 days. (Devices).	FFD&C Act Sec. 515(d)(1)(A)	96

[1] Potential performance computes the percent that we will reach if all the currently pending within goal submissions are given within goal reviews. Current performance figures may appear low since the fiscal year 2000 cohort is just reaching goal date maturity.

[2] FDA is required to take an action on generic drug applications within 180 days. FDA had a goal of reviewing 60 percent of applications in fiscal year 1999. That goal was not met, in part, due to a procedure that held applications open while the firm responded to deficiencies in the final stages of review. This approach has been revised. The goal for fiscal year 2000 is 45 percent, 50 percent for fiscal year 2001, and 55 percent for fiscal year 2002. Performance data for fiscal year 2000 will not be available until 180 days after the close of fiscal year 2000. However, based on preliminary estimates, it appears FDA will meet its goal of 45 percent for fiscal year 2000.

[3] The statutory requirement—FD&C Act Section 409(c)(2)—for action on a food additive petition is ninety days, with one additional ninety-day extension for a total of 180 days. (A similar provision for color additives is found in FD&C Act Section 721(d)(1).) Nevertheless, for these petitions, application review goals are based on 360 days as recommended by House Report 104–436. During the period January 1, 2000 to September 30, 2000, FDA completed the safety evaluation within 360 days on: 5 of the 5 food additive petitions received in fiscal year 1999 that qualified for expedited review—those that are expected to have a significant impact on food safety. In addition, FDA completed the safety evaluation within 360 days on 59 of the 77 food and color additive petitions received in fiscal year 1999 that did not qualify for expedited review.

Question. Using the fiscal year 2002 request as a base, what additional amount of funding and number of staff years would be required to allow FDA to meet the statutory requirements?

Answer. The Agency is currently in the process of developing long-range estimates for resource needs associated with closing the gap between current performance and meeting statutory requirements. The estimates will include: a range of estimated resources, assumptions in determining the estimate, and caveats that indicate what types of uncertainties or changes would alter the estimates.

DEVICES

Question. Section 515(d) of the Federal Food, Drug, and Cosmetic Act requires FDA to approve or deny a PMA within 180 days. The FDA budget justification indicates that the statutory requirement is to review 100 percent of PMA first actions within 180 days. Is this in fact the agency's view? What is the difference between "first action" and approving or denying an application?

Answer. Section 515(d) of the Federal Food, Drug, and Cosmetic Act requires FDA to approve or deny premarket approval application, or PMA, within 180 days. It is FDA's goal to meet the statutory time frame. This includes completing our review and first action within 180 days. A first action includes the final action of approving or denying an application. First actions also include interim decision letters in which FDA lists additional information that is required from the PMA applicant in order to make the application approvable. These interim first actions include approvable, not approvable, and major deficiency letters. Not approvable and major deficiency letters cause the 180-day review clock to restart, that is it is reset to zero, when the PMA applicant submits responses to these letters. An approvable letter temporarily stops the clock while the applicant prepares a response, and the clock resumes running when we receive the response.

Question. What additional funding would FDA require from the President's fiscal year 2002 budget request to meet statutory review times for medical devices. Please provide a detailed justification of the estimate provided, along with an explanation as to how the additional funds would be used to meet statutory review times.

Answer. FDA expects to expend the same level of funding in fiscal year 2002 as in fiscal year 2001 for medical device reviews, plus corresponding pay increases in fiscal year 2002 associated with this function. The Agency is currently in the process of developing long range estimates for resource needs associated with medical device

reviews. The estimates will include: a range of estimated resources, assumptions in predicting the number of anticipated applications and associated establishment inspections, and caveats that indicate what types of uncertainties or changes would alter the estimates.

Question. Please provide for each of the last 5 fiscal years the dollar amount and full-time equivalent (FTE) positions that have been expended at the Center for Devices and Radiological Health (CDRH) on premarket review for each of the following: 510(k) submissions, PMAs, PMA supplements, IDEs, IDE supplements, IDE amendments, and HDEs.

Answer. I would be happy to provide for the record, a table showing the FTEs and dollars expended by CDRH on premarket review for five years: Fiscal years 1996–2000. Please note that CDRH includes HDEs with PMAs and PMA supplements in its data tracking, so data are not available for HDEs alone. Also, CDRH does not track IDE Amendments alone; they are counted with all IDEs.

[The information follows:]

[Dollars in thousands]

Review activity	Fiscal year—									
	1996		1997		1998		1999		2000	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
510(k)	243	$19.9	185	$16.0	184	$16.6	166	$15.2	154	S15.3
PMAs [1]	113	9.5	158	13.2	95	8.7	98	9.5	109	10.7
PMA Supplements [2]	31	2.6	19	1.7	39	3.5	46	4.3	49	5.1
IDEs [3]	53	4.3	55	4.5	59	5.1	53	4.9	46	4.5
IDE Supplements	32	2.7	35	2.7	41	3.6	36	3.4	46	4.5

[1] Includes amendments and HDEs—separate data for HDEs are not available.
[2] Includes HDEs—separate data for HDEs are not available.
[3] Includes IDE amdements—separate data for IDE amendments are not available.

Question. Please provide for each of the last 5 fiscal years the dollar amount and FTEs that have been expended on educational activities for reviewers and CDRH participation in standards development.

Answer. I would be happy to provide for the record a table showing the FTEs and dollars expended by CDRH during fiscal years 1996–2000 for the activities you requested. Please note that CDRH did not collect separate data on educational activities for reviewers from fiscal years 1996–1998. Also, please note that medical device standards activities include development of international standards, and domestic mandatory and domestic voluntary standards under the Medical Device Authority.

[The information follows:]

[Dollars in thousands]

Activity	Fiscal year—									
	1996		1997		1998		1999		2000	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Educational Activity [1]	N/A	N/A	N/A	N/A	N/A	N/A	12	$1.1	13	$1.2
Standards Development	43	$3.8	65	$5.2	74	$7.1	70	7.2	53	5.6

[1] There are no comparable data on educational activities in CDRH prior to fiscal year 1999.

Question. Please provide for each of the last 5 fiscal years the dollar amount and FTEs that have been expended on the following: domestic inspections, foreign inspections, post-market surveillance, MedSUN, device tracking, bioresearch monitoring, and medical device reporting requirements.

Answer. For the record, I will provide a table showing FTEs and dollars expended by FDA's Center for Devices and Radiological Health, or CDRH, during fiscal years 1996–2000 for the activities you requested. To clarify the table, let me explain CDRH does not collect separate data on resources expended for investigations. This information is collected under the heading, "Quality Systems/Certification." Other activities included in the category are footnoted on the table. MedSUN and Medical Device Reporting Requirements data are not tracked separately, but are combined into a single adverse event reporting category. MedSUN was a pilot program through fiscal year 2000 and fiscal year 2001 is its first year of implementation.

[The information follows:]

[Dollars in thousands]

Activity	Fiscal year—									
	1996		1997		1998		1999		2000	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Quality Systems/Certification	33	$2.7	25	$2.1	20	$1.8	18	$1.6	17	$1.6
Postmarket Surveillance	57	5.5	36	3.4	38	3.3	36	3.8	19	2.1
Adverse Event Reporting (incl MedSUN & Medical Device Reporting Requirements	36	3.8	44	4.4	37	4.4	37	5.1	38	5.8
Device Tracking	1	1.0	1	.1	1	.1	1	.1	1	.1
Bioresearch Monitoring	22	1.7	22	1.7	23	2.1	20	1.7	20	1.9

Question. Please provide for each of the last 5 fiscal years the dollar amount and FTEs that have been expended on non-review scientific activities.

Answer. For the record, I will submit a table with the FTE and dollars expended by CDRH on medical device non-review scientific activities.

[The information follows:]

Activity	Fiscal year—									
	1996		1997		1998		1999		2000	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Non-Review Scientific Activities	75	$8.1	73	$6.3	79	$7.5	78	$8.7	67	$8.9

Question. Please provide for each of the last 5 fiscal years the dollar amounts that have been expended at CDRH on contracting with outside experts to assist in the review of each of the following types of submissions: 510(k)s, PMAs, PMA supplements, IDEs, and HDEs.

Answer. When funding levels and circumstances permit, FDA uses its authority to contract out with outside technical expertise when such expertise is needed. For example, in fiscal year 2000, FDA hired 70 Special Government Employees to participate on the medical devices advisory committees. FDA has a Document Control Contract for maintaining the physical integrity of such documents as IDE, 510(k), and PMA submissions. A scanning contract is used to convert medical device and radiological health documents to electronic form to improve document storage and retrieval. FDA has also contracted with the Oak Ridge Institute for Science and Education, or ORISE, fellowship program to recruit experts to participate in reviews. FDA has allocated fiscal year 2001 funds to continue these contracts. I would be happy to provide for the record a chart that shows the expenditures for the Medical Device Advisory Committees, the Scanning Contract and the Document Control Contract for the past five years. We cannot break down these amounts by application type since they support the entire device review process.

[The information follows:]

Fiscal year	Medical device advisory committees	Scanning contract	Document control contract
1996	$.450	$.373	$1.2
1997	.486	.375	1.0
1998	.581	.450	1.1
1999	.474	[1] .000	1.1
2000	[2] .594	.459	1.1

[1] There were sufficient multiyear funds in the fiscal year 1998 contract to perform this operation through fiscal year 1999.

[2] Salary cap for Advisory Committee members increased from $150.00 to $389.80 per day.

Question. What level of funding is proposed in the fiscal year 2002 budget for review, oversight, and enforcement activities of users and manufacturers of all reprocessed medical devices, as compared to the level provided in each of fiscal years 2000 and 2001?

Answer. FDA expects the Medical Device program to expend about $2.8 million on reprocessing and reuse of single use devices. In fiscal year 2001 FDA requested and received $2.8 million for medical device reuse to be allocated for premarket review, enforcement, and oversight activities related to users and manufacturers of all

reprocessed medical devices. FDA has been staffing up to handle the anticipated workload and believes that the current budget allocations should be sufficient to handle the 510(k) submissions that we receive.

PRESCRIPTION DRUG USER FEE ACT (PDUFA) REAUTHORIZATION

Question. The user fee program for prescription drug review (PDUFA) is authorized through this fiscal year. What are the agency's primary concerns in negotiating the next phase of PDUFA?

Answer. The Administration is currently in the process of reviewing PDUFA II. While prescription drug user fees have been successful in improving FDA's ability to review new drugs for safety and efficacy quickly, we are evaluating the program to identify potential improvements to PDUFA II. We look forward to working with Congress and industry as we move closer to the sunset date for PDUFA II.

POST-MARKET SURVEILLANCE

Question. FDA evaluates the safety and nutrition of bioengineered foods, and last month issued a proposed rule to make the voluntary consulting process mandatory. What information would the FDA require from firms wishing to market bioengineered foods? What benefit would be gained from this data?

Answer. Under the proposed rule, FDA would require that a notifier attest that the food is as safe as comparable food is lawful, and justify that statement in a narrative. FDA would also require that a notifier identify any uses that may be unsuitable. The data and information FDA would require under the proposed rule would enable FDA to assess on an ongoing basis whether plant-derived bioengineered foods are as safe as their conventional counterparts, do not contain unapproved food additives, and if the names of the foods are appropriate in light of any compositional changes to the food. A summary of what the proposed rule from January 18, 2001, would require of the data and information is provided for the record.

[The information follows:]

SUMMARY OF DATA AND INFORMATION

1. the identity and source of introduced genetic material;
2. the function of substances that will be present in the food as a result of the introduced genetic material;
3. intended changes to the composition of the food;
4. how the food was developed;
5. genes, if any, that encode resistance to an antibiotic;
6. the potential that proteins introduced into the food will be allergenic; and,
7. levels of significant nutrients and naturally occurring toxicants.

Question. FDA inspects an extremely small fraction of imported products, the majority of which are foods. The agency also conducts inspections of foreign exporting firms and equivalency audits of foreign regulatory systems in many product areas. What is FDA's import strategy? What mix of activities would best assure the safety of imported products? Are we heading in that direction and making appropriate investments?

Answer. FDA has multiple strategies given the different types of products and commodities the Agency regulates. All FDA's Centers have a component which develops compliance programs and assignments specific for imported products under the jurisdiction of that Center and in consultation with the Office of Regulatory Affairs, ORA. The best mix of ORA activities is: a combination of foreign inspections; field examinations and sample analyses; investigations of substituted, substandard or smuggled goods; analysis of epidemiological data; and evaluations of U.S. Customs house brokers, filers, to ensure integrity of data submitted to U.S. Customs Service and FDA via ACS/OASIS. Also import alerts and bulletins may be proposed by the Centers specific for imported products when emerging issues and problems become evident. Additionally, activities which promote equivalency, known as Mutual Recognition Agreements and Memorandum of Agreement, are a key component for assurance of the safety of imported products. However, overall import enforcement activities play a key role as well. To strengthen FDA's import enforcement, there have been a series of training courses for field import personnel held in 2000–2001 to promote interaction with U.S. Customs Service and effective enforcement through the application of U.S. Customs laws and regulations.

FOOD SAFETY

Question. Congress has provided FDA with substantial food safety resources during the past 4 years. Can you outline some of the accomplishments achieved with these resources?

Answer. Resources provided to FDA have allowed us to change the way we conduct our business of ensuring a safe food supply and to make many changes to improve the public health. We have focused our attention on the big-picture public health goal of reducing foodborne illness and a much more comprehensive "farm-to-table" approach. These efforts have allowed FDA to make considerable progress in reducing foodborne illness and antimicrobial resistance. FoodNet data show an overall reduction of 20 percent for foodborne illness for selected pathogens. With the resources provided we have been able to step up our efforts to ensure that FDA-regulated products comply with consumer protection laws and regulations enforced by the agency. For example, last year we increased our "high-risk" food inspections by 90 percent over the previous year. We have advanced the public health with our education efforts targeted to consumers who are more susceptible to certain risks by giving them the information they can use to make an informed choice. We taken great strides forward in our public-private partnerships with industry, academia and Federal and State governments in putting forth four simple food safety messages for consumers. In collaboration with our scientific business partners we have made important strides toward better scientific data, methods and models. The overall accomplishments are many.

With the continued support of the Congress in fiscal year 2002, we anticipate further gains in additional reductions in foodborne illness, including illness from chemical and pesticide contamination. A summary will be provided for the record.

In overseeing seafood safety, last year alone FDA issued 148 warning letters and an injunction, against firms for noncompliance with the seafood HACCP regulations. FDA has been able to detect outbreaks quicker and to provide coordinated investigations using PulseNet. Examples of outbreaks where the capability of PulseNet was used include: shingella sonnei in five-layer bean dip; salmonella typhimurium in clover sprouts; and salmonella baildon in tomatoes. The National Antimicrobial Resistance Monitoring System, NARMS, has been expanded substantially. NARMS monitors the emergence and spread of resistance in enteric bacteria and helps to ensure the continued safety and effectiveness of veterinary antimicrobials. NARMS data has been used to:

[The information follows:]

NARMS Data Usage

Initiate field investigations of outbreaks of illness marked by a pathogen that displayed an unusual antimicrobial resistance pattern;

Assess the human health impact of fluoroquinolone use in poultry;

Stimulate research in molecular characteristics of resistance emergence and transfer;

Prove our knowledge of risk factors associated with the development of an antimicrobial-resistant infection; and

Trigger broader research on the prudent antimicrobial use in animals and the role of the environment in the emergence and spread of antimicrobial resistance.

In addition, the Agency has

Developed a document, "Multi-state Foodborne Outbreak Investigations: Guidelines for Improving Coordination and Communication";

Published a final rule designed to improve the safety of fruit and vegetable juices;

Established procedures to prevent distribution of unsafe imported food by requiring that shipments from "bad actor" importers be held in a secure storage facility at the importers' expense until released by FDA;

Published a proposed rule that will require marking food shipments refused for safety reasons to indicate that the product was denied entry in the U.S.;

Collaborated with the National Science Teachers Association and created a professional development program for teachers and a supplementary science curriculum to encourage safe food handling behaviors on the part of students, many of whom work in food service establishments;

Began a prioritized review of new and previously approved antimicrobial drugs for use in animals, especially those used for sub-therapeutic purposes, and develop training and guidance for the regulated industry in conducting pre-approval studies;

Finalized the FDA framework document "A Proposed Framework for Evaluating and Assuring the Human Safety of the Microbial Effects of Antimicrobial New Animal Drugs Intended for Use in Food Producing Animals.";

Expanded efforts to determine how use of antimicrobial agents in food-producing animals contributes to the selection and spread of multi-resistant bacteria in human food and anima feeds; and,

Initiated a pilot study with Mexico on monitoring system for antimicrobial resistance in Salmonella.

Specifically, in the areas of research and risk assessment FDA

Completed a draft risk assessment on the estimated public health risk associated with eating raw oysters containing Vibrio parahaemolyticus;

Completed a draft risk assessment on the potential relativerisk of listeriosis from eating certain ready-to-eat foods;

Developed a method, being used by FDA as well as CDC, for detecting Cyclospora and providing the first isolation of the pathogen from food product associated with human illness;

Completed research to demonstrate that surface heating of apples is not an effective method of improving the safety of apple juice;

Demonstrated that temperature plays a critical role in inactivation of common types of Clostridium botulinum spores during high pressure processing;

Demonstrated that pulsed electric field energy and heat work together in the destruction of Listeria monocytogenes;

Developed a method to characterize new and unusual strains of pathogenic E. coli.

Conducted studies that indicate that poultry products may serve as reservoirs of fluoroquinolone-resistant Campylobacter spp;

Conducted research that indicates that FDA may need to standardize the identification techniques used to characterize the components of competitive exclusion products used to pre-infect chickens, preventing adverse bacterial infections;

Conducted research on bacteria contained in commercial competitive exclusion products that contain vancomycin-resistant genes;

Developed statistical models for microbial risk assessment and submitted them for publication;

Conducted a quantitative risk assessment that modeled the human health impact of fluoroquinolone-resistant Campylobacter infections associated with consumption of chicken. The risk assessment showed that development of resistance in food-producing animals has an impact on human health by compromising the effectiveness of human medicines;

Improved methods for the detection of Vibrio parahaemolyticus and transferred the technology to FDA and State regulatory laboratories;

Continued research on dose-response modeling of microbial risk assessment;

Continued studies on the measurement of the effect of low level antibiotic residues on the human intestinal flora; and,

Continued efforts towards developing a protocol to look at probiotic (viable bacterial cultures that are beneficial to the host) effects on the host organism's defenses.

Question. For fiscal year 2001, the Committee indicated that FDA was to provide $2,000,000 as the annual base level of funding for the National Center for Food Safety and Technology, NCFST, and to provide an additional $1,000,000 to the Center for collaborative research in support of the President's food safety initiative. Please provide an update on the activities being carried out by NCFST and a status report on the fiscal year 2001 funding for the Center.

Answer. The Agency provided $2,993,400, which reflects enacted levels adjusted for the 0.22 percent rescission to support the National Center for Food Safety and Technology's, NCFST, collaborative research in food safety among government, academia, and private industry. NCFST is the nation's only research consortium of industry, government, and academia to address the food safety implications of emerging technologies in food processing, packaging, biotechnology. The NCFST is a cost effective resource for developing and exploring new technologies. By spreading the cost and risk of doing research, companies can control their costs while putting themselves on the cutting edge of new technology developments. For the record we will provide some recent accomplishments of the Center.

[The information follows:]

CENTER ACCOMPLISHMENTS

1. *Irradiation Task Force.*—Research at NCFST involving twenty meat processors and plastic packaging companies resulted in data to support a petition to FDA to allow the safe use of plastic polymers for use with E-beam irradiation. This work received temporary approval enabling industry to launch irradiated hamburger which was free of the harmful pathogen E. coli O157:H7.

2. *Alfalfa Sprouts Task Force.*—The NCFST worked with the International Sprout Growers Association to develop Good Manufacturing Practices, testing protocols, seed certification and intervention processes to make safe sprouted products. Since the implementation of these guidelines, the incidence of outbreaks attributed to alfalfa sprouts has been significantly reduced.

3. *Aseptic Processing of Foods with Particles.*—The NCFST is recognized as a world leader in the area of aseptic processing of foods. This new technology will allow food processors to make "fresh-like" soups and stews that rival home-made.

4. *Department of Defense Dual Use of Science and Technology (DUST).*—Five member companies of the Center recently received a grant from the Department of Defense to conduct the science necessary to validate the use of High Pressure Processing to sterilize foods. This pioneering technology makes it possible to process foods with minimal changes to the fresh character of the product and thus provide improved military rations. It will also have significant commercial applications.

Question. What level of funding is included in the fiscal year 2002 budget request for the National Center for Food Safety and Technology?

Answer. In fiscal year 2002, FDA plans to expend $3,000,000 in support of the National Center for Food Safety and Technology's, NCFST, collaborative research activities. The fiscal year 2001 rescission of .22 percent reduced the $3.0 million fiscal year 2001 Appropriations by $6,600. This collaborative research effort between government, academia, and private industry supports the food safety implications of emerging technologies in food processing, packaging, biotechnology. The NCFST is a cost effective resource for developing and exploring new technologies. By spreading the cost and risk of doing research, companies can control their costs while putting themselves on the cutting edge of new technology developments.

Question. How much is included in the fiscal year 2002 budget request for FDA activities in support of Codex Alimentarius, as compared to the fiscal year 2001 level?

Answer. FDA expects to expend around $1.8 million in fiscal year 2001 and approximately $2.1 million in fiscal year 2002 for its work associated with the Codex Alimentarius.

Question. Please give us an update on activities conducted by FDA in support of Codex Alimentarius.

Answer. Codex participants recognize the U.S. as a worldwide leader when it comes to accomplishing Codex's mission. Most recently FDA participated in the development of the Principles and Guidelines for Microbiological Risk, and assessing risks concerning Listeria in ready to eat foods. FDA further assisted Codex with the formulation of guidelines for bioengineered foods and the labeling of such products. In reference to a country's control over imports, FDA provides technical guidance for the Judgement of Equivalence of Food Import/Export Systems along with developing guidelines for the Food Import Control Systems. Finally, FDA chairs the working group developing the General Standard for Food Additives that involves a comprehensive review of the safety and use of substances added to food directly generally. FDA recognizes that public interest in Codex is very significant and tries to keep interested parties informed as much as possible via regular emails, mail and public meetings.

PROPOSED TRANSFER AUTHORITY

Question. The fiscal year 2002 budget proposes to include FDA in the Department of Health and Human Services (DHHS) departmental transfer authority. The budget justification indicates that this transfer authority will allow DHHS to assist the FDA in responding to emerging public health issues. Please give some examples.

Answer. The transfer authority would be a mechanism for providing funding to allow FDA to respond quickly and efficiently to emerging health issues. Examples of this type of health issue include product tampering such as Tylenol and baby food, and breast implant tissues. Another example would be the expenses FDA has incurred during Fiscal 2001 for efforts to prevent BSE in this country. For this fiscal year, we were able to use some Contingency Fund funds that were appropriated in past years.

Question. Also, the proposed transfer authority would not only allow DHHS to transfer funding to FDA but from FDA. What is the justification for allowing DHHS to transfer funds from FDA?

Answer. Language authorizing this transfer is proposed for inclusion in the Labor, Health and Human Services, Education and Related Agencies Appropriation Act general provisions. This would give the Secretary of DHHS authority to transfer funds to meet pressing needs in FDA, or in other DHHS components as the case

may be, even though FDA's appropriations are in a different appropriations bill than most of the DHHS components.

EXCESS FEE COLLECTIONS

Question. The fiscal year 2002 budget proposes new salaries and expenses appropriations account language which would provide FDA the authority to credit to the account PDUFA fees that may have been collected in excess of the amounts appropriated in a previous year. Have such excess collections occurred in past years? Please indicate the amount in each of the past three fiscal years. Also, please identify the amount in excess collections projected to be available for fiscal year 2002.

Answer. I will be happy to provide that information. During the first five years of the Prescription Drug User Fee Act the Act authorized the collection amount to be increased by inflation and set a collection limitation not to exceed the amount in the appropriating legislation. If the fees for applications being submitted to agency exceeded the amount appropriated, prorated refunds were provided to the drug companies. Such excess collections were refunded for three years—1994, 1996, and 1997. FDAMA amended PDUFA to give FDA the ability, after 1997, to keep any fees above the appropriation limitation and specified that any excess collection amount should offset the amount of fees to be collected in future years. The purpose of the fiscal year 2002 appropriation language change is simply to have the appropriation language parallel the authorizing language. So far the only fiscal year in which fee collections have exceeded the specified appropriation amount is fiscal year 1998, and the amount collected in excess of appropriations was $324,776. However, several requests for refunds or waivers are pending against this balance, and FDA will not know for certain if excess collections have been realized until all of these claims have been decided. The amount of excess collections is noted below in a table being submitted for the record. The table represented is as of September 30, 2000, and is updated annually with the Collections Realized in FDA's Financial Report required by the Prescription Drug User Fee Act of 1992 as amended by the Food and Drug Administration Modernization Act of 1997.

[The information follows:]

Fiscal year	Collections realized	Collection ceiling	Potential offset to future collections
1998	$117,446,776	$117,133,000	$324,776
1999	122,011,516	132,273,000	.....
2000	137,698,948	145,434,000	.....
2001	Not Available	149,273,000	Not Available
2002	Not Available	161,716,000	Not Available

CLINICAL PHARMACOLOGY PROGRAM

Question. What level of funding is included in the fiscal year 2002 budget request for the Clinical Pharmacology Program?

Answer. FDA expects the Clinical Pharmacology Program to be funded at $500,000 in fiscal year 2002, the same level as fiscal year 2001.

Question. Please explain the importance of this program to FDA.

Answer. The Clinical Pharmacology Program provides financial assistance to investigators who conduct research as part of their clinical pharmacology training program. This program is funded through cooperative agreements. I will be happy to provide a more specific description of the Clinical Pharmacology Program for the record.

[The information follows:]

Specific goals important to the public health include:

—Advancing scientific knowledge of mechanisms of in vitro/in vivo metabolism/drug interactions;

—Characterization of individual exposure-response to drugs; and,

—The effect of age, gender, and race on drug disposition and exposure response relationships. Projects that fulfill any one or a combination of the following specific objectives are considered for funding;

—Mechanistic understanding of drug-drug, drug-food, and drug-non-prescription product interactions;

—Research to develop and evaluate biomarkers, and noninvasive imaging as a way to assess safety and efficacy;

—Computer modeling and clinical trial simulations: evaluation of clinical study designs to confirm drug safety and efficacy;
—Evaluation of techniques in gender, age, race, and liver/kidney function-specific differences in drug response and drug interactions;
—Development of electronic databases to capture key metabolism/drug interaction data and provide a linkage to an expert system to assist the New Drug Application (NDA) review; and
—Research to define the clinical pharmacology characteristics of complex drug substances to assure proper use, define the biopharmaceutical characteristics of the active ingredients, and develop ways to establish equivalency of dosage forms to establish standards.

Question. What cooperative agreements are being supported with the funding provided for the program for fiscal year 2001? Please indicate the level of funding for each.

Answer. In fiscal year 2001, FDA awarded $500,000 in clinical pharmacology grants to Indiana University. Indiana University was the grantee recipient as well in fiscal year 2000 in the amount of $459,992. Previous grantees in this program include: University of Illinois at Peoria, Meharry Medical College, State University of New York at Binghamton, and the Mayo Clinic.

OFFICE OF GENERIC DRUGS

Question. Please identify the level of funding and number of staff years requested for fiscal year 2002 for the Office of Generic Drugs, as compared with the fiscal year 2001 levels.

Answer. For fiscal year 2001, FDA projects to expend an estimated $15.4 million for the Office of Generic Drugs—OGD, including the support of 143 Full-Time Equivalent positions. The Agency did not request a specific increase for OGD in fiscal year 2002, but plans to devote the same number of staff in fiscal year 2002 as in fiscal year 2001. Additional funds in fiscal year 2002 will come from the requested increase for pay raises. The Office of Generics would receive approximately $0.8 million of the $40 million requested increase in pay.

Question. Please provide the level of funding and number of staff years provided for the previous four fiscal years (fiscal year 1998 to fiscal year 2001) for the Office of Generic Drugs. If these dollar levels or number of staff years differ from the increases earmarked by the Congress, please provide an explanation as to why there is a difference.

Answer. For the record we are providing a table of funding and FTE levels, including operating funds that have been available specifically to the Office of Generic Drugs, OGD.

[The information follows:]

Fiscal year	Actual/ planned FTE	Actual/planned expenditures (amount)	Congressionally appropriated funds included in fiscal year total
1998	123	$9,997	+$1.0 million for the Office of Generic Drugs to assist with accelerated approvals (House Report 105–178).
1999	130	11,217	+$1.0 million for the Office of Generic Drugs (Conference Report 105–763)
2000	134	14,733	+$1.8 million ($1.9 million for the Office of Generic Drugs [Senate Report 106–80] minus fiscal year 2000 Budget Recission). +$1.5 million in Tobacco reprogramming funds (one-time funding) for Information Technology purchases in fiscal year 2000.
2001	143	[1] 15,362	+$1.2 million for the Office of Generic Drugs to reduce generic drug application review and approval times (Conference Report 106–948).

[1] Planned.

PROPOSED REDUCTION

Question. The budget justification indicates that the fiscal year 2002 salaries and expenses request includes a reduction of $1,497,000 from the fiscal year 2001 appropriation. Please identify and provide an explanation for this proposed reduction.

Answer. FDA's fiscal year 2001 appropriations contained language directing FDA to provide $1.5 million for a contract with the New Mexico State University's (NMSU) Physical Science Laboratory (PSL) to establish a lab for conducting "rapid

screening analyses" of fresh fruits and vegetables (imported and domestic) for microbial contamination. FDA is providing a contract in the amount of $1,497,000, adjusted for the .22 percent recission with New Mexico State University's Physical Science Laboratory (NMSU/PSL). The NMSU Project Manager and FDA agreed that the project should focus on method evaluation of rapid testing methods. These would include micro and biochemical lab tests as well as evaluation of field test kits for our investigators. While the lab is not ready to handle regulatory samples it could be used to gather data in evaluation of rapid testing methods. The lab's work will help in the goal of reducing the time that it takes for perishable products to go from harvest to market. In order to allow for time to evaluate the work of the laboratory, no resources are requested for this project in fiscal year 2002.

NEW USER FEES

Question. The fiscal year 2002 budget proposes new user fees for import operations and food export certification, estimated to bring in $14.7 million and $5.3 million, respectively. What discussions has the Department and/or agency had with industry on these new user fee proposals?

Answer. FDA believes user fees can be used to accelerate performance as long as strategic plans, performance measures, and goals are an integral part of any user fee proposal. The user fees being proposed here can be implemented within a reasonable timeframe. For example, discussions have taken place with industry in the past with regards to Export certification fees, so it is believed this can be implemented in a short time span. The imports fee would most likely require longer discussions with our stakeholders. However, we believe the importer/broker community would benefit greatly by the faster turn-around times, elimination of large volumes of paperwork and reduced costs of doing business.

Question. When will these legislative proposals be submitted to the Congress for consideration and what success do you believe they will have?

Answer. The proposals are currently undergoing clearance by the administration.

Question. The budget justification indicates that if the proposed new user fees for imports are not authorized and implemented, a larger portion of the budget authority will be needed to support the import program. Does this mean that the Administration would submit a budget amendment requesting additional funds or that you would simply reprioritize within the existing fiscal year 2002 appropriations request to provide additional support for the import program?

Answer. It means the Agency could reprioritize within the existing fiscal year 2002 appropriations request for inspections to provide additional support for the import program. No budget amendment will be requested if the user fees are not authorized.

ADVERSE EVENTS REPORTING/"MEDICAL ERRORS"

Question. An increase of $6.8 million was provided for fiscal year 2001 for improvements to FDA's current system of post-market surveillance to identify adverse events associated with products on the market. Would you please give us an update on the status of this effort. What is the total amount of funding being provided for fiscal year 2001 for adverse events reporting?

Answer. The Agency allocated the $6.785 million to the human drugs, biologics, and medical device programs in fiscal year 2001 for the purpose of improving the reporting and analysis of adverse events. The fiscal year 2001 increase to the post-market surveillance activities related to adverse event reports, brings the total funding level in fiscal year 2001 to an estimated $48 million. FDA receives over 250,000 total for all products adverse event reports associated with pharmaceuticals each year. Over one-third of these adverse events are judged to be preventable. FDA implemented a new version of the pharmaceutical Adverse Event Reporting System, or AERS, in January 2001 which allows for state-of-the-art analytic capabilities. A priority in 2001 is to develop and propose new regulations requiring electronic submission of adverse event reports by manufacturers, expanding the current pilot program. I would be happy to provide for the record a summary of how the fiscal year 2001 increased funding will be used.

[The information follows:]

Fiscal year 2001 Funding for Adverse Events

Access drug utilization databases that can provide FDA with data on patient drug use acquired by individuals in an ambulatory care or inpatient setting;

Implement a pharmaceutical marketing database service contract that will provide data regarding current and long-term trends in drug and biologic utilization and prescriptions;

Design and develop up-to-date reporting systems that permit manufacturers of biological products to report problems, product defects, and potential adverse reactions to the Agency;

Train field staff to improve information gathered through investigation of consumer complaints and to upgrade the field data system to provide consumer complaint data that complements ACERS. Reporting systems include collection of error and accident events that occur during manufacturing processes or storage of products from blood product manufacturers and blood banking facilities; and

Further develop the Medical Product Surveillance Network (MedSUN). The idea of a Sentinel User Reporting System originated with a provision in the fiscal year 1997 Food and Drug Administration Modernization Act. MedSUN helps correct the severe under-reporting of adverse events by user facilities, and improves the quantity and quality of data received from the user community. The funds will be used to expand the program by an additional 25 hospitals, and possibly 15–30 nursing homes. Recruitment of facilities will begin this summer. Funds also are being used to develop the MedSUN database, which will give FDA the ability to analyze the causes and contributing factors associated with the adverse events, and to provide feedback to device manufacturers.

Question. The fiscal year 2002 budget requests an additional $10 million to improve FDA's system for monitoring adverse events associated with marketed products. What activities will be undertaken with the additional funds requested? Please indicate the total fiscal year 2002 funding requested, by activity, as compared with the fiscal year 2001 base funding level.

Answer. In fiscal year 2002, FDA requests an increase in funding of $10 million to safeguard patients against adverse events associated with the use of drugs, biological agents, medical devices, foods and dietary supplements by improving FDA's systems for monitoring marketed products. Many patient deaths and injuries are associated with the use of FDA-regulated medical products. The FDA believes that roughly half of these deaths and injuries can be avoided by fully implementing its strategies. Thousands of lives and billions of dollars can be saved. We would be happy to provide a list of specific adverse event or patient safety goals for each programmatic increase in fiscal year 2002. The Agency is also providing base resource information per your request.

[The information follows:]

Human Drugs Program

5. Complete FDA's new on-line adverse event reporting system (ACERS) for drugs and Biologics, and provide rapid assessment of injuries and deaths associated with the use of these products;

6. Develop links to hospital-based information systems to better support hospital staff working on the "front lines" of patient safety. This includes improving the reporting systems to address under-reporting and incomplete reporting of medical errors, as well as increased use of other electronic systems to monitor problems with use of drug products. Access to drug utilization databases can also provide the Agency with data on patient drug use by individuals in an ambulatory care or inpatient setting;

7. Increase FDA's capacity to do the multi-factor analysis necessary to correctly identify the sources of safety problems and potential solutions. This includes establishing links to safety databases maintained within community-level healthcare delivery systems and regional-level safety surveillance systems, and adding to expertise in medical epidemiology and statistical analysis;

8. Develop linkages to government and private health care databases. Access to broad-based health information databases will allow for more rapid exploration of potentially serious drug-related problems and more rigorous investigations than currently possible;

9. Expand educational and training programs for health care providers and the public to promote the safe use of products;

10. Investigate reported errors and develop error reduction strategies with manufacturers and the medical community; and,

11. Upgrade field investigational data systems to complement agency error tracking systems, and to provide better information on the incidence of medical errors.

Biologics Program

8. Expand and upgrade the current Biological Product Deviation Reporting System (BDR). This system contains reports from the product manufacturer of any event associated with the manufacturing of a biological product, including testing, processing, packing, labeling, and storage, or with the holding or distribution of a

licensed biological product in which the safety, purity, or potency of a distributed product may be affected.

9. Expand the monitoring of reports from the Vaccine Adverse Event Reporting System (VERS), MIDWATCH and hospital fatality reports for biologic related cases. FDA proposes to link to existing external data sources held by both private and government organizations. For example, emergency rooms, poison control centers, health care systems, and the Centers for Disease Control and Prevention, all collect important information on adverse reactions.

10. Explore the feasibility of utilizing the Medical Errors Reporting System for Transfusion Medicine (MARS–TM) to perform data aggregation and analysis for ACERS. MARS-TM was developed under NIH funding and could serve as the model for the FDA blood error reporting. MARS-TM encourages non-punitive reporting with a well-defined codified method of reporting.

Medical Devices Program

11. Maintain the existing 100 facilities in the program, which includes both hospitals and nursing homes;

12. Recruit between 75–100 new user facilities and expand the program to include other types of user facilities such as ambulatory care surgical centers; and,

13. Expand data analytic capability, and outreach and feedback opportunities to the medical community, industry, and other stakeholders.

Foods Program

14. Consolidate five existing Adverse Event systems within the Foods Program into one comprehensive, center-wide system to capture and evaluate consumer adverse event reports for foods, food and color additives, cosmetics, and dietary supplements;

15. Develop external interfaces with the Agency wide Field Accomplishments Tracking System (FACTS) and ACERS to share data; and,

16. Supply system users with classification, indexing, research and management tools, and materials for the evaluation of adverse events.

FDA RESOURCES DEVOTED TO AERS/MEDICATION ERROS/PATIENT SAFETY

	Estimated fiscal year 2001		Requested fiscal year 2002	
	FTE	Amount	FTE	Amount
CFSAN	10	$1,900	14	$2,900
CDER	93	24,500	107	28,100
CBER	17	1,700	25	3,700
CVM	9	1,600	9	1,600
CDRH	48	8,500	48	10,500
ORA	75	7,100	81	8,100
Other Act.	16	2,800	19	3,200
Total	268	48,100	303	58,100

BIOLOGICS

Question. What is the status of regulations that would require the release of what is now confidential information from biological investigational new drug applications involving gene therapy and xenotransplantation? Concern has been expressed that this proposal goes too far, in that it would require the release of trade secret and confidential commercial information that could jeopardize the proprietary nature of research protocols. Also, is there coordination of this proposal with NIH guidelines involving gene therapy? What is the justification for two agencies of DHHS reviewing gene therapy protocols?

Answer. On January 18, 2001, FDA published a proposed rule entitled, "Availability for Public Disclosure and Submission to FDA for Public Disclosure of Certain Data and Information Related to Human Gene Therapy or Xenotransplantation." In response to that proposed rule, approximately 280 public comments-currently 136 written comments and 145 electronic comments were submitted-have been initially reviewed and summarized. FDA will convene a task group to consider these comments; determine what changes to the rulemaking should be made in response to the comments; write responses to all comments; and agree upon a timeline to complete these tasks. In general, the public commented that more information should

be made public, while some but not all of the industry, commented that too much confidential information would be made public under the rule. FDA is meeting and corresponding with the Office of Biotechnology Activities, National Institutes of Health—the NIH—regularly to assure that our efforts are coordinated.

The FDA and NIH have different roles and responsibilities with regards to gene therapy. As with any clinical trial involving a drug or a biologic, FDA has clear responsibilities for the regulatory oversight of gene therapy clinical trials; that is, to assure the safety, purity, potency and efficacy of gene therapy products. In particular, 21 Code of Federal Regulations 312.22 (a) says, "FDA's primary objectives in reviewing an IND are, in all phases of the investigation, to assure the safety and rights of subjects, and, in Phase 2 and 3, to help assure that the quality of the scientific evaluation of drugs is adequate to permit an evaluation of the drug's effectiveness and safety."

Additionally, in 1984 and 1986, the Federal government proposed, as part of a coordinated policy for biotechnology, that the NIH's Recombinant DNA Advisory Committee, the RAC, would review recombinant DNA gene therapy products used in human clinical trials.

Question. What is the proposed FDA fiscal year 2002 budget for review of gene therapy, as compared to the fiscal year 2001 level?

Answer. FDA's fiscal year 2002 budget request includes $500,000 for gene therapy. In fiscal year 2001 FDA is devoting one time funding of $750,000 for the gene therapy data base.

Question. FDA has indicated that it is developing guidances on growth hormone and human insulin drug products. Will these guidances require clinical trials for effectiveness? Would these products be approved for safety and effectiveness? If only for safety, what is FDA's statutory authority to approve products for safety only?

Answer. FDA is developing guidances on growth hormone and human insulin drug products to describe what scientific and technical information should be submitted in applications for these drugs. These guidances are not yet ready or publication. When they are completed, they will be published in draft for public comment. There are a number of technical and scientific issues still to be resolved in determining what information sponsors should submit for FDA to assess whether growth hormone and human insulin products are safe and effective.

FISCAL YEAR 2001 FUNDING INCREASES

Question. Would you please give us an update on the status of each of the following activities for which increased appropriations were provided for fiscal year 2001:

—$5.0 million for enforcement of Internet drug sales;
—$5.0 million for counter-bioterrorism activities;
—$9 million for inspections;
—$30 million for food safety;
—$1 million for dietary supplements;
—$1 million for orphan product grants;
—$1.2 million for the Office of Generic Drugs;
—$22.879 million for premarket review; and
—$6.8 million for adverse events reporting.

Answer. I would be happy to provide that information for the record.

[The information follows:]

Internet Drug Sales $5.0 million for enforcement

In fiscal year 2001, FDA's overall goal is to reduce the illegal promotion, sales, and distribution of approved and unapproved prescription pharmaceuticals via the Internet. FDA enhanced its enforcement effort of Internet sites that violate Federal laws relating to prescription drugs, and has undertaken a greater public education campaign to help consumer's shop wisely for approved pharmaceuticals online.

FDA's strategy focuses on putting a halt to illicit or illegal activity by identifying the pharmaceutical Internet sites that pose the greatest threat. The Agency is using prevailing Internet hardware and software to carry out surveillance and investigative activities and focuses on sites identified by FDA investigators and consumers via FDA's Internet site (http://www.fda.gov/oc/buyonline/buyonlineform.htm). FDA is supporting a rapid response team to deal with these sites. FDA is working closely with State regulatory officials and other Federal agencies to leverage resources and expedite the process of eliminating fraudulent activity on Internet sites. The Agency also works with the U.S. Customs Service, the Drug Enforcement Administration, and the Postal Service to monitor prescription drug imports coming into this country from all sources.

Countering Bioterrorism +$5 million

FDA is an important contributor to the Nation's capability to respond to potential chemical and biological threats from bioterrorism. FDA's role includes assuring that new vaccines and drugs are safe and effective, safeguarding the food supply, and conducting research for diagnostic tools and treatment of disease outbreaks. Unlike other DHHS agencies that are participants in the Administration's anti-bioterrorism initiative, FDA plays a critical but less visible role with respect to its programs. Whether the issue is the development and use of rapid diagnostics to quickly identify a suspected biological agent or the capability to make available and administer large quantities of a vaccine or drug to counter the effects of a bioweapon, FDA's research is the linchpin that makes it possible for the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), the Office of Emergency Preparedness (OEP), the Department of Defense (DOD), and others to carry out such activities.

FDA conducts research on the development of new analytical approaches and methodologies, and determines if new products provide needed benefits without causing adverse side effects that would outweigh those benefits. This research includes both laboratory and non-laboratory investigation to support FDA regulatory responsibilities both immediately, and in the long-term. With the fiscal year 2001 funding, FDA will:

Foods

Conduct research to develop rapid methods of detection of biological agents, such as anthrax, that could be used by terrorists. Techniques will be developed to confirm the results of less specific detection methods. These detection methods will provide necessary surveillance tools needed for monitoring programs.

Human Drugs

Participate in the planning and coordination of public health responses to bioterrorist attacks.

Prepare field staff to safely seize, remove, and dispose of contaminated products by developing procedures and providing appropriate facilities and equipment.

Develop inspection methods and procedures to assure the safety of regulated products at manufacturers' facilities and other establishments.

Biologics

Engage in activities contributing to the expeditious development and licensure of new vaccines for anthrax and smallpox and the associated vaccinia immune globulin products used to treat or prevent serious vaccinia infections brought on by the smallpox vaccine.

Improve scientific expertise in monoclonal antibody therapies, new approaches in the use of biotherapeutics, animal and human derived immune globulins in the treatment of viral and bacterial diseases as well as emerging infectious diseases. Antibodies are immune-system proteins that attack foreign invaders like germs, or that neutralize substances the body is over-producing. Monoclonal antibodies are artificial, highly purified antibodies, made by combining animal and human genetic material, that work with exquisite precision in small doses. This will enhance our ability to identify, treat and test for previously unrecognized threats.

—Develop regulatory models to accommodate the need for preparedness in the case of an emergency attack. For example, procedures and protocols are being developed to enable the use of investigational new drugs in as highly controlled, safe manner for particular emergency situations, such as responding to a bioterrorist attack that exposed individuals to the agent that causes anthrax. These products must be reviewed and approved prior to large-scale productions necessary to create and maintain a stockpile. Staff must guide the products through the regulatory process, including the manufacturing process, preclinical testing, clinical trials, and the licensing and approval process. This process is extremely complex and early involvement by staff is critical to the success of the expedited review process.

Participate in the planning and coordination of public health responses to bioterrorist attacks.

Develop inspection methods and procedures to assure the safety of regulated products at manufacturers' facilities and other establishments.

Animal Drugs

Explore ways to prevent microorganism and toxic chemicals including pesticides from entering animal feeds and food-producing animals. Develop methods for detecting the presence of pathogenic microorganisms and/or the toxins produced by the microorganism to effectively identify a threat and respond appropriately.

Medical Devices

Prepare expert reviewers for a significant increase in the number of premarket submissions, (many as IDE applications) as the bioterrorism response program progresses.

Monitor and evaluate the public health needs and impact of products used in conjunction with bioterrorism response (in vitro diagnostic devices, portable ventilators, syringes, gloves, and other standard equipment

NCTR

Expand the mass spectrometry-based approaches to identify biomarkers of toxicity associated with biological warfare agents. This technique will significantly increase the ability to rapidly identify and characterize biological agents that could be used as weapons.

Develop novel techniques to identify new bacteriological and chemical contaminants in the food supply. These techniques can crossover to provide methods of assessment for potential biochemical terrorist tools. Maintaining currency in analytical techniques will ensure the American public has the best and most accurate tools to fight food borne disease as well as identify biological warfare agents.

Office of Regulatory Affairs—$9 million for inspections

FDA is utilizing the additional funding to make modest improvements in statutory inspection coverage through additional FDA inspections and the use of leveraging and expanding existing State contracts. The requested funds will prevent the FDA from falling behind the fiscal year 2000 level of inspectional effort and to offset absorptions of inflationary increases. FDA will:

—Conduct more inspections for Human Drugs, Biologics, Animal Drugs and Medical Devices, where the law requires specific inspection frequency;
—Expand State contracts to further leverage inspectional coverage in all program areas; and
—Improve the existing levels of annual inspectional coverage.

Food Safety $30 million

The funding has allowed FDA to make considerable progress in reducing foodborne illness and antimicrobial resistance. FoodNet data show an overall reduction of 20 percent for foodborne illness for selected pathogens. With the resources provided we have been able to step up our efforts to ensure that FDA-regulated products comply with consumer protection laws and regulations enforced by the agency. In fiscal year 2001 we increased our "high-risk" food inspections by 90 percent over the previous year. We have advanced the public health with our education efforts targeted to consumers who are more susceptible to certain risks by giving them the information they can use to make an informed choice. Other activities in 2001 include:

—Expand domestic inspections to ensure annual inspections of all high-risk food establishments and enhance laboratory capabilities for the analytical support associated with inspectional activity;
—Implement State audit programs to ensure consistent application of regulations and develop consistent nationwide standards for on-farm preventive controls for egg producers and food handling practices at retail;
—Implement the Hazard Analysis Control Point (HACCP) system for fruit and vegetable juices;
—Develop and evaluate on-farm intervention strategies and/or technologies to improve testing methodologies for Salmonella Enteriditis (SE) on the farm and in eggs, evaluate commercial processing technologies and practices, and conduct research to understand the ecology and epidemiology of SE in the hen and farm environment;
—Complete the National Antimicrobial Resistance Monitoring System (NARMS) by adding national and international data collection sites as well as including major species of micro-organisms that cause foodborne disease;
—Expand support and expertise in molecular methods that can be used to rapidly identify markers of toxicity of foodborne pathogens; and
—Develop new methods for routine surveillance of fluoroquinolone resistant Salmonella and Campylobacter to provide the data needed to make informed risk decisions concerning the use of quinolone-based antimicrobials in poultry and antibiotic resistance.

Dietary Supplements $1 million

FDA is currently collaborating with the National Center for Natural Products Research in Oxford, Mississippi to review botanicals in dietary supplements. The ability to identify and analyze specific components in ingredients, including botanical

ingredients and in finished products is an essential component of research and regulatory programs directed at ensuring the safety and effectiveness of dietary supplements.

Orphan Grants $1 million

The Orphan Grants program has $12,514,000 available for grants in fiscal year 2001, an increase of $1,000,000 over fiscal year 2000. Activities in the Orphan Drugs Program have included the receipt of 69 applications of which four were considered non-responsive leaving 65 for review.

Office of Generic Drugs $1.2 million

The increase was used to annualize the positions added in fiscal year 2000 and add several additional FTE. Several of these staffers are already on-board, fully trained, and demonstrating high levels of productivity. With this additional increase, all chemistry reviewer vacancies are currently filled. The Office of Generic Drugs, OGD, continues to refine the review process to increase efficiency. The Agency is exploring ways to increase resources devoted to information technology for the review of generic drug applications. The OGD is attempting to close the gap between the performance at 180 days and the significant increase in overall performance at 210 days so that the first action is taken within the statutory time frame. We also plan to revise the current system for amendment designation, major versus minor, to improve total review times.

Premarket Review $22.879 million

FDA's increase for premarket review was used to strengthen the science base focusing on efficiencies in the premarket application review program. FDA must have well-trained scientific experts current with cutting edge technology. Additional activities include:

—Enhance scientific capabilities to better manage risks associated with emerging biotech foods. FDA and industry have consulted on approximately 40 new bioengineered food products to date;
—Expedite reviews of generic drugs;
—Reduce review times for animal drugs for quicker market access;
—Improve the safety of children's vaccines through the National Vaccine Safety Program, NVSP, which will reduce the risk of disease transmission through vaccines;
—Improve the quality and safety of the nation's blood supply with better diagnostic tests that reduce the threat of emerging blood-borne infectious diseases being transmitted through blood;
—Improve pandemic flu activities to reduce the incidence and severity of influenza;
—Increase product review activities and develop standards for high-risk medical device re-use applications for reprocessed devices meant for single use.

Adverse Event Reporting $6.8 million

FDA is working with Departments across the Federal government to improve health care through the prevention of medical errors and enhancement of patient safety. The agency will continue to increase its capabilities to protect patient safety. With the additional $6.8 million, FDA has been able to speed initiatives to further reduce medical errors by:

—Expanding the capacity for active surveillance of problems with medical products through the Adverse Event Reporting Systems;
—Developing links to hospital-based information systems, to better support hospital staff working on the "front lines" of patient safety. This includes improving the reporting systems for blood errors and accidents, continued implementation of the Medical Device Surveillance Network (MedSUN) to address under-reporting and incomplete reporting of medical device problems, and to extend its capacity to include drug reports, as well as increased use of other electronic systems to monitor problems with use of drug products;
—Increasing the capacity to do the multi-factor analysis to correctly identify the sources of safety problems and potential solutions. This includes establishing links to safety databases maintained within community-level healthcare delivery systems and regional-level safety surveillance systems, and adding to expertise in medical epidemiology and statistical analysis;
—Increasing FDA's capacity to act on safety findings, including better risk communication to providers and patients who use medical products; regulatory steps to correct product design and manufacturing problems; and partnerships with other health agencies and health care organizations;

—is will reduce the existing backlog of reports and improve the quality of assessing and managing risk identified from AERS reports related to animal drugs.

FISCAL YEAR 2001 AND 2002 BASE FUNDING

Question. Please provide the fiscal year 2002 base funding and staff year levels for each of the activities listed above, as compared to the fiscal year 2001 level.

Answer. I would be happy to provide the requested base funding levels for each of the above activities in fiscal year 2001 and fiscal year 2002.

[The information follows:]

[Dollars in millions]

Activity [1]	Estimated fiscal year 2001		Requested fiscal year 2002	
	Amount	FTE	Amount	FTE
Internet drug sales	$10.6	90	$10.9	90
Counter-bioterrorism activities	7.0	46	7.4	46
Imports and Inspections	341.8	3,143	366.8	3,238
Food safety	335.9	2,588	350.6	2,655
Dietary supplements	5.9	46	6.9	50
Orphan product grants	12.5		12.5	
Office of Generic Drugs	15.4	143	16.1	143
Premarket review [2]	560.6	4,411	587.2	4,429
Adverse events reporting	48.0	268	58.0	303

[1] Several of these activities are cross-cutting.
[2] Premarket review accounts for all premarket-related activities.

COST OF RELOCATING TO THE NEW FDA HEADQUARTERS

Question. The fiscal year 2002 budget requests an additional $6 million to equip and occupy a new laboratory for the Center for Drug Evaluation and Research as part of the agency's long-range move a consolidated headquarters in Maryland. Please identify each of the costs, by fiscal year, associated with FDA long-range move to its consolidated headquarters.

Answer. FDA is currently in the process of developing long-range estimates of expenses associated with the move to the new consolidated headquarters in Maryland. The fiscal year 2002 Budget includes $9 million in GSA funding for additional planning for the consolidated facilities at White Oak. We will have a better idea of long-range estimates for the move to consolidated facilities in White Oak after the completion of the fiscal year 2003 Budget process.

FINANCIAL MANAGEMENT SYSTEM

Question. The fiscal year 2002 budget requests an increase of $8.3 million to allow FDA to begin the development of an advanced financial management system as part of the Department of Health and Human Services' effort to replace its existing systems. Does the $8.3 million requested represent the full cost of "developing" this system?

Answer. The Joint Financial Management Improvement Program, JFMIP, guidelines require that FDA purchase an off-the-shelf financial system that is fully developed. In addition to purchasing the software, FDA will need to acquire the computer hardware, perform training for staff, develop various interfaces to other HHS systems such as payroll, develop a security plan for the new system, perform data conversion and migration from the old systems and acquire contractor support to assist FDA in the implementation. The fiscal year 2002 Budget request of $8.3 million will begin initial acquisition and implementation of the new financial management system. Funding to complete the project will be requested in subsequent fiscal years.

Question. What is the total cost of this effort? Please identify the investment which will be required in each future fiscal year.

Answer. Estimates of future funding requests for the cost of the new financial management system are currently under development. Funding to complete the project will be requested in subsequent fiscal years.

Question. Is FDA's investment contingent on the funding provided to other Department of Health and Human Services' agencies for this new system?

Answer. No. FDA's investment is not contingent on the funding of other HHS agencies. However, FDA is working in cooperation with HHS and other agencies in

the selection and implementation of the FDA's new financial system in order that HHS has a unified and/or integrated financial system.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

USE OF SINGLE RH USE MEDICAL DEVICES

Single use medical devices devices designed—manufactured and FDA approved for use on one patient in one procedure—are misused every day in this country. Rather than being discarded after use in one patient, many of these devices are subjected to under-regulated and inadequate cleaning procedures and are then used on other patients. Single use medical devices are bound to fail and compromise patient safety when stretched beyond the limits of their design by reprocessing. Such medical device misuse has already led to serious health quality issues including blindness, thermal burns, infections, and heart complications. Each of these medical errors was preventable. Had the disposable medical devices used on these patients been discarded after their first use, these injuries would not have occurred.

Despite its review of numerous scientific studies demonstrating the serious risks associated with reprocessing, including several studies conducted by the Agency itself, FDA has failed to meaningfully enforce key patient safety provisions of the Food, Drug, and Cosmetic Act (FFDCA) and, as a result, has failed to prevent foreseeable medical errors. In response to substantial Congressional and public pressure (including an August 2000 Senate Labor Committee hearing, and a February 2000 House Commerce Committee oversight hearing), FDA has recently published enforcement guidance on the regulation of single use device reprocessing. This guidance, while a step in the right direction, continues to permit the use of many unsafe reprocessed devices on American patients for example, the reuse of biopsy forceps (devices inserted into the body and through the colon to obtain tissue samples) developed and approved by FDA for single use only continues to go unregulated. To ensure patient safety, FDA must fully enforce both the letter and spirit of the law.

Question. Dr. Schwetz, can you please comment on FDA's progress in implementing its strategy to regulate the practice of reprocessing and reusing medical devices that are labeled and approved by FDA for single use only?

Answer. On August 14, 2000, FDA issued a guidance document entitled Enforcement Priorities for Single-Use Devices Reprocessed by Third Parties and Hospitals. This guidance finalizes FDA's policy on how it intends to regulate entities that reprocess single-use devices for reuse and sets forth the Agency's priorities for enforcing these requirements.

On February 14, 2001, FDA began enforcing premarket submission requirements for all Class III single-use devices that are reused. Beginning on August 14, 2001, FDA intends to enforce premarket submission requirements for all non-exempt Class II devices. Beginning on February 14, 2002, FDA intends to enforce premarket submission requirements for all non-exempt Class I single-use devices that are reused.

In addition to the premarket requirements, third party reprocessors have always been subject to Agency requirements for: Registration and Device Listing; Medical Device Reporting; Medical Device Tracking; Medical Device Corrections and Removals; Quality System Regulation; and Labeling. Beginning on August 14, 2001, FDA intends to enforce these requirements for all hospitals that reprocess single use devices.

FDA is conducting extensive outreach to inform entities, such as hospitals, of the Agency's reuse policy. We have met many times with third party reprocessors and other interested parties to discuss this policy. On December 13, 2000, the Agency sponsored an interactive satellite teleconference entitled Reprocessing Single-Use Devices in Hospitals: A Primer on FDA Requirements. One of the main purposes of the teleconference was to describe FDA's regulatory requirements in plain language for hospital reprocessors. Examples of what the Agency has done in the past year to implement the reuse policy are provided for the record.

[The information follows:]

Agency Examples of Reuse Policy

Pilot training program to inspect hospital reprocessors.—We have developed a 2-day pilot program to train a cadre of experienced FDA field investigators to inspect hospitals that reprocess single-use devices. This pilot program will form the basis for the formal training program that is scheduled for fall 2001 for 40 to 50 FDA investigators.

—*Pilot GMP inspection program for hospital reprocessors.*—We have developed a pilot Good Manufacturing Practice (GMP) inspection program for hospitals that re-

process single-use devices. The primary purpose of the pilot inspection is to provide hospital inspection training for FDA field investigators. Hospitals also may benefit because they will be given feedback on their facility's current "state of compliance" with FDA's requirements for device manufacturers. The Agency issued a letter seeking volunteers from the hospital community. Among the organizations that were invited to participate are the American Hospital Association, the Joint Commission on the Accreditation of Healthcare Organizations, ECRI (a technology assessment firm that services thousands of hospital clients), and the International Association of Healthcare Central Service Material Management. We are waiting for responses. We expect to begin a regular inspection program in October 2001 and will use information from FDA's registration and listing database to schedule these inspections.

Federal Register notice on proposed voluntary survey of hospitals.—On April 30, 2001, FDA published a notice in the Federal Register seeking public comment on the Agency's proposed voluntary survey of hospitals to collect information on the extent and nature of current practice of reprocessing single-use devices in these institutions. The notice has a 60-day comment period.

Letter to hospitals on FDA's reuse policy.—We issued a second letter, the first letter was mailed in fall 2000, to U.S. hospitals reminding them of the Agency's intent to actively regulate hospitals that reprocess single-use devices as manufacturers. The letter also provided a timetable of when we intend to begin enforcing the requirements and informed hospitals of regulatory actions that we may take against non-compliant hospitals.

Guidance on reporting adverse events as device manufacturers.—FDA issued a document entitled "Guidance on Adverse Event Reporting for Hospitals that Reprocess Devices Intended by the Original Equipment Manufacturer for Single Use." This guidance document describes the Medical Device Reporting, MDR, requirements for hospital reprocessors of single-use devices and provides guidance on how to complete the Mandatory MedWatch report form 3500A as device manufacturers.

Premarket applications for reprocessed single-use devices.—In keeping with the enforcement timetable FDA established in its guidance, on February 14, 2001, the Agency received several premarket applications, PMAs, from third party reprocessors to reprocess cardiac ablation catheters, devices are used to treat certain cardiac conditions. The applications are currently undergoing review. We anticipate rendering final decisions on the applications by August 14, 2001.

Inspections of third party reprocessors.—The Agency is on schedule in its efforts to inspect all third party reprocessors in the U.S. this year. The main focus of these inspections will be manufacturing/reprocessing controls that are required to be in place in accordance with FDA's Quality System Regulation. We intend to pursue enforcement action, as appropriate, against any reprocessor that continues to distribute reprocessed Class III devices that are not the subject of a pending or approved premarket application.

Outreach program.—We continue to support an extensive outreach program to inform hospitals and health care providers of the Agency's reuse policy. For example, in the past year the Agency accepted over 25 invitations to speak at professional association meetings on the Agency's reuse policy. FDA also sponsored two 2-day workshops for hospital and third party reprocessors on FDA's reuse policy in May 2001.

Meetings with single-use device reprocessors.—FDA has held numerous meetings with representatives of reprocessing companies to discuss premarket requirements for used single-use devices.

Question. There is one category of products in particular that generated the Senate's interest in this issue—specifically the reuse of biopsy forceps. In FDA's original guidance, the Agency classified the reuse of these products as "high risk" because of concerns that they could not be adequately reprocessed without significant risk to patients for infections, and significant concerns with respect to the effectiveness of the products after multiple uses. What specific steps has FDA taken to ensure that the public is being protected from the reuse of biopsy forceps? Since the Agency has stated that the reuse of biopsy forceps is a "high risk," why hasn't FDA required premarket submissions to ensure that reprocessed forceps are in fact safe for patients?

Answer. In accordance with the device classification scheme established in section 513 of the Federal Food, Drug and Cosmetic Act, non-electric biopsy forceps intended for use in gastrological and urological procedures are classified as class I devices, per 21 CFR § 876.1075(b)(2). As such, they are subject to a wide range of general controls designed to ensure safety and effectiveness, including registration, listing, medical device reporting, tracking, corrections and removals, quality systems, and labeling. All manufacturers, including reprocessors, are subject to these requirements, which can be enforced through warning letters, seizures, injunctions, civil

money penalties, recalls, and even criminal prosecutions. FDA's August 22, 2000 guidance document entitled Enforcement Priorities for Single-Use Devices Reprocessed by Third Parties and Hospitals, reemphasized that, like other manufacturers, third party reprocessors are subject to these requirements, and announced FDA's intent to phase in over one year active enforcement of these general controls for hospital reprocessors, against whom FDA has not historically pursued active enforcement. In accordance with these legal authorities, FDA has inspected a major third-party reprocessor of non-electric biopsy forceps and is working to resolve problems found in its cleaning and sterilization processes. FDA will inspect all third-party reprocessors this fiscal year. FDA is and has been committed to enforcing the statutory safeguards to minimize potential risk. At this time, we are not aware of any data that link the reprocessing of non-electric biopsy forceps to specific adverse events in patients.

Non-electric biopsy forceps, like the majority of class I devices, are exempt from the premarket notification requirements of section 510(k) of the act, subject to the limitations in 21 CFR § 876.9. FDA is currently considering a citizen's petition requesting the Agency to amend its regulation so as to limit the exemption to forceps that are produced by an original equipment manufacturer for single use or are originally labeled and designed for multiple uses. We are presently considering the petition. Among the factors we will consider are the risks presented by the device, and what regulatory controls will most appropriately ensure the safety and effectiveness of the device.

PMA STATISTICS

Question. According to FDA's enforcement guidance for single use device reprocessing, reprocessors were required to submit PMAs for Class III devices by February 14, 2001. How many reprocessor PMAs has FDA received? How many were considered sufficiently complete to proceed to substantive review? What devices are covered by those PMAs? Has FDA approved any reprocessor PMAs?

Answer. As of May 24, 2001, the Center for Devices and Radiological Health, CDRH has received five PMAs for reprocessed devices. All five PMAs were for Cardiac Ablation Catheters. Four of these five PMAs were filed. One of the four PMAs is under review and we have asked questions of the other three applicants and are waiting on that additional information. None has been approved at this time.

ENFORCEMENT ISSUES

Question. Now that the premarket enforcement period for single use device reprocessing has begun, what activity has FDA undertaken to find and stop the reprocessing of Class III devices absent a filed PMA?

Answer. FDA intends to inspect all third-party reprocessors this fiscal year. A multi-district assignment issued on December 21, 2000 identified eight firms to be inspected. A second multi- district assignment to inspect additional firms will be issued shortly.

FDA will begin inspecting hospitals after August 14, 2001, to evaluate their compliance with premarket submission requirements and the requirements of the Quality System regulation.

Several PMAs have been received from third-party reprocessors, and reviews are underway. One PMA was not filed because it did not meet our threshold review requirements. We notified the firm whose PMA was not filed that it cannot legally introduce these devices into interstate commerce until such time as they are the subject of an approved PMA or an approved investigational device exemption application and that marketing these devices without such approvals could result in enforcement action.

REVIEWER GUIDANCE

Question. According to the enforcement guidance on single use device reprocessing, reprocessor PMA's for Class III devices were to have been filed by February 14, 2001. I understand that FDA's planned guidance document for reviewers and industry regarding the unique features that must be included in a reprocessor 510(k)/PMA has been delayed. When will the guidance be issued? In the absence of the guidance document, what standards are FDA reviewers using to review reprocessor PMA's.

Answer. The draft guidance document for reviewers and industry was posted on the CDRH web site on May 24, 2001. Although FDA is giving the public 90 days to comment on the draft, the guidance reflects current policies and recommendations on premarket regulatory and technical issues. The overriding principle of the guidance is that FDA intends to treat OEMs and reprocessors in the same way with re-

spect to meeting premarket requirements. Most of the standards and guidance documents referred to in the draft guidance are already available to FDA reviewers and the public through FDA's Reuse Web Site.

APPROVAL STANDARD

Question. FDA has been accused of lowering the data standard for medical devices entering the U.S. market so that reprocessing of single use devices can continue. My understanding is that the legal minimum for 510(k) clearance of a device is that the device be at least as safe and effective as a legally marketed device. With respect to reprocessed single use devices, my understanding is that FDA has declared that these devices should be "as safe and effective as possible." Has the FDA established two different standards? If so, why?

Answer. FDA has not changed the review standard for a 510(k) clearance. Devices cleared for market through the premarket notification 510(k) process must be as safe and effective as a legally marketed device. There are no additional regulatory requirements for reprocessed single use devices, or SUD, submissions, nor are there special allowances for these submissions.

QUESTIONS SUBMITTED BY SENATOR HERB KOHL

RESEARCH/REGULATORY FUNDING PRIORITIES

Question. As I'm sure you are aware, the President's fiscal year 2002 budget requests an increase of $2.75 billion, or 13.5 percent, for the National Institutes of Health. This is the fourth installment of a five-year plan to double the NIH budget. Private pharmaceutical companies invested nearly $50 billion in research and development in fiscal year 2001, and the trend continues to rise. As the Agency charged with reviewing these new products to determine whether they are safe for public consumption and use, you have and will continue to face great pressure to work expeditiously, making new and improved drugs and medical devices available to the public as quickly as possible.

In view of the FDA budget request, do the substantial increases in funds for basic research conflict with the government's ability to approve the products that will result from that research in a timely manner?

Answer. As new products are generated by the academic and industry research, fueled by NIH, they must be evaluated by FDA staff with the scientific expertise to assess their benefits and risks. We want to ensure that FDA will not become a bottleneck in getting safe and effective products and therapies to the public. The number and complexity of products and issues coming before FDA demand that the agency have the very best scientific capability to evaluate them. FDA must have a critical mass of top-notch scientific and medical expertise to assess these products and answer new questions.

Question. Do you work with the NIH to streamline the process between the development of new drugs and your responsibility to approve and monitor them?

Answer. We frequently discuss preclinical toxicology requirements, general concepts of clinical development plan design, and new endpoints pertinent to new classes of drugs with various institutes at NIH.

Question. Please summarize the actions being taken to ensure that FDA will be prepared when all of the R&D research pays off.

Answer. Although we are aware that there is an increase in research and development for new drugs that may lead to new technologies, it is difficult to predict the submission rates for new drug applications. However, we continue to streamline our process to meet our review goals as we have in the past. FDA has been actively working on streamlining our internal policies and procedures by moving to a paperless environment. Examples of some of our accomplishments are provided for the record.

[The information follows:]

Expanded the Electronic Document Room to manage the receipt and handling of full electronic new drug applications. Slightly over 50 percent of original new drug applications received in CDER now include sections that are submitted electronically. In fiscal year 2000, CDER received over 500 electronic submissions, including full new drug applications, supplemental new drug applications, and amendments. There has been a 50 percent decrease in the average number of paper volumes per new drug application submission since the start of electronic submissions in 1997.

Drafted guidance on Providing Regulatory Submissions in Electronic Format—Abrieviated New Drug Applications, ANDA. Developed software to convert proprietary formats to XML so submissions can be archived.

Published final guidance Providing Regulatory Submissions in Electronic Format—Prescription Drug Advertising and Promotional Labeling in January 2001.

Drafting guidances on Providing Regulatory Submissions in Electronic Format—Postmarketing Expedited Safety Reports; Providing Regulatory Submissions in Electronic Format—Annual reports; Providing Regulatory Submissions in Electronic Format—IND and Providing Regulatory Submissions in Electronic Format—Annual reports.

Drafting guidance on Providing Regulatory Submissions in Electronic Format—Drug Registration and Listing. This project involves the collection of information using a web-based system. In addition, a proposed rule is being drafted that would require the submission of this information in electronic format.

Finalizing a proposed rule that would require sponsors to submit certain labeling content electronically to the Agency for review. Interested parties will have an opportunity to comment.

Receiving electronic postmarketing adverse event reports under a pilot submission program. A number of sponsors have successfully sent reports electronically that have been directly transferred to a database. The agency is also preparing regulations to require all adverse event reports from industry to be submitted electronically.

IMPORT INSPECTIONS

Question. Global trade has more than tripled the number of shipments of FDA regulated imports from about 1.5 million in 1992 to six million in 2000. However, according to your own reports, FDA only has the ability to sample less than one percent of all regulated products offered for imports.

How many products should be inspected for it to be an acceptable amount?

Answer. The Agency is currently in the process of determining the amount of samples necessary in various product categories to determine whether we have a sufficient and acceptable statistical sample of products. The estimates will include: a range of the estimated number of products, assumptions in predicting the number of anticipated products being imported into the U.S., and caveats that indicate what types of uncertainties or changes would alter the estimates.

Question. How much money would be necessary to ensure this is possible?

Answer. Once FDA calculates an estimated number of samples necessary to determine whether it has a sufficient and acceptable statistical sample of imported products, the Agency will then attempt to determine the additional cost to the existing import program. The estimates will include: a range of the estimated estimated resources, assumptions in determining the cost estimate, and caveats that indicate what types of uncertainties or changes would alter the estimates.

MAD COW DISEASE

Question. As I'm sure you know, over the past several years, "mad cow disease" has infected more than 180,000 cattle in Europe and parts of Asia. With animal diseases such as this occurring, it seems that sampling less than one percent of all imports leaves a large gap through which BSE infected animal feed or other products could enter the U.S.

While I applaud FDA for its increased investment in preventing BSE from entering the United States, what is being done to prevent BSE from entering the United States via banned animal protein that has been diverted from its originating country to a third-party country we do not currently consider a threat?

Answer. The regulations governing products of animal origin which pose a risk of harboring disease agents are primarily enforced by the U.S. Department of Agriculture, USDA. In cooperation with USDA, FDA has directed its field personnel to be alert to the potential importation of BSE material and to provide entry notification to local USDA officials. If a product moves from its country of origin, through a second country and is relabeled as a product of the second country, without any processing occurring in the second country, that is a violation of U.S. Customs Country of Origin rules. If the product is processed in the second country, not only is it proper to be declared as a product of the second country, but generally speaking, U.S. Customs Service regulations require such a declaration.

FDA is currently developing a proposed rule to amend FDA regulations to prohibit the use of materials derived from ruminant animals in FDA regulated products. The proposed prohibition will apply to the use of materials derived from ruminant animals born, raised, or slaughtered in certain countries and to the use of materials that have been processed or manufactured in a facility where materials derived from ruminant animals born, raised, or slaughtered in certain countries are also processed or manufactured. The proposed rule will require manufacturers of drugs and

biological products for human and animal use and medical devices, to certify regarding the use of materials derived from ruminant animals in the manufacture of their products.

Question. Is FDA currently working to identify any third-party countries that may be importing materials containing BSE received from a prohibited country?

Answer. FDA has not identified any specific third party countries that may be importing materials containing BSE received from a prohibited country at this time. Currently, efforts have focused on products from the BSE affected or at-risk countries identified by U.S. Department of Agriculture's Animal Plant Health Inspection Service, APHIS. Should FDA become aware of such practices, we may consider expanding current import alerts and bulletins dealing with BSE to these countries or firms in other countries as well.

The FDA Office of Criminal Investigations, OCI, is on the record with written communication exchanged with the Federal Bureau of Investigation, FBI, U.S. Customs Service, Interpol, and the U.S. Department of Agriculture, Office of the Inspector General, requesting immediate notification of any information received suggesting prohibited BSE ruminant material may make its way into U.S. commerce by any means. OCI is an active participant in the USDA law enforcement working group on foreign animal diseases. OCI is also an active member of the Permanent Forum on International Pharmaceutical Crime, PFIPC. Some of the European members of PFIPC have responsibilities extending to foods and are heavily involved in BSE issues at this time. They have been asked to advise OCI immediately on receipt of any information indicating contaminated material may be finding its way to the U,S. OCI provides follow up on any allegations of a criminal nature. Plans are underway to obtain direct access to classified channels of communication to augment our other sources.

Question. If not, are there plans to do so? If so, what communications are taking place to ensure these products do not enter the U.S. market?

Answer. FDA has been communicating extensively with the U.S. Department of Agriculture, USDA, the Food Safety Inspection Service, FSIS, the Department of Defense, DOD and the Animal Plant and Health Inspection Service, APHIS, regarding BSE issues. On March 12, 2001 a meeting was held with USDA, FDA, and the Center for Disease Control, CDC. One of issues discussed regarding imports was third country movements. Most, if not all countries, have recognized the threat from bovine materials contaminated with the BSE agent and have instituted import restrictions. Coupled with the extraordinary actions taken by the European Union, EU to identify and destroy BSE-contaminated animals, the importation and transhipment of contaminated products while still a risk, is a low one.

FDA has issued import alerts and bulletins to review all bulk and finished products that contain bovine risk material from BSE-identified countries and to refer those imports to APHIS for disposition and prevent them from entering the U.S.

No warning letters have been issued in connection with possible shipments of ruminant material from BSE at-risk countries. When FDA determines that a product offered for import into the U.S. appears to be adulterated or misbranded the usual course of action is Refusal of Admission per section 801 of the Food, Drug and Cosmetic Act, rather than issuance of a Warning Letter. In the case of products with the potential for BSE contamination for which both agencies have jurisdiction, FDA's cooperative enforcement program with APHIS calls for FDA to back-up APHIS's initial manifest review, and to coordinate regulatory action with APHIS on any products which may contain ruminant material from BSE at-risk countries. To date, no such refusals have been issued.

FDA STAFFING LEVELS

Question. I mentioned earlier that over the past eight years, FDA has had to absorb $284 million for mandatory cost-of-living and pay-related increases for FDA employees. This has resulted in a ten percent decrease in staffing levels in program areas not funded by user fees.

Please describe to this Subcommittee the effect this shortage of funds has had on FDA's ability to fulfill its mission, and give specific examples.

Answer. In order to fulfill our mission, we need a workforce able to meet our needs in any given situation. The Agency has acheived efficiencies by reducing non-payroll operating costs as much as possible, limiting travel, supplies, and equipment. The Agency has also reduced extramural research and methods development projects. From fiscal year 1995 through fiscal year 2000, non user-fee full time employees have declined from about 8,800 to 7,900.

Question. Will the $40 million increase in the President's budget to help pay for cost-of-living increases allow FDA to replace any of the staff it has lost over the past decade?

Answer. Since 1993 the Agency has lost 1,000 non-user fee positions. These will not be recovered with this pay increase. The $40 million will, however, allow FDA to maintain the same staffing levels in fiscal year 2002 as fiscal year 2001.

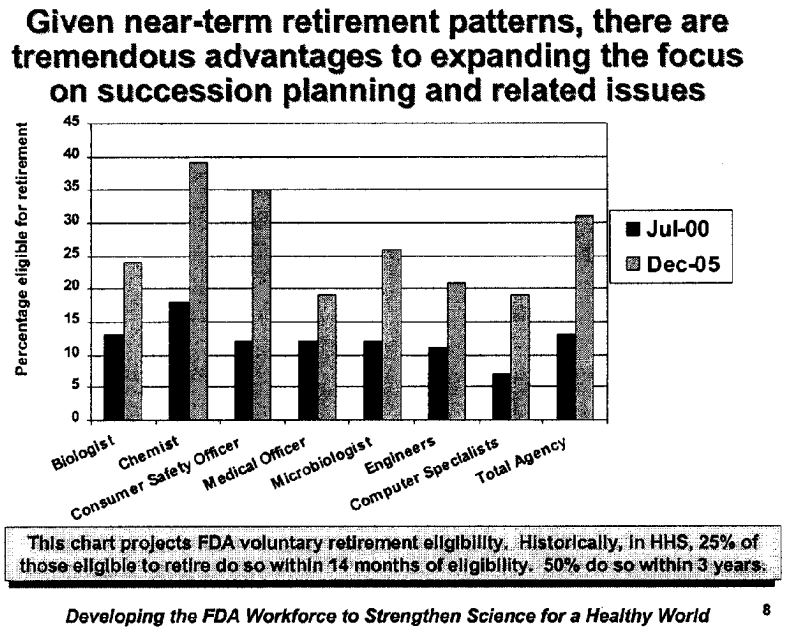
Question. How much money is necessary to bring staffing levels up to an amount that enables FDA to reach its peak performance, especially in light of the increases in applications to come?

Answer. The Agency is currently in the process of developing long-range estimates for resource needs associated with closing the gap between current performance and meeting statutory requirements as well as other high priority areas at the Agency where FDA is not reaching peak performance. The estimates will include: a range of estimated resources, assumptions in determining the estimate, and caveats that indicate what types of uncertainties or changes would alter the estimates.

Question. To what extent does the number of FDA personnel approaching retirement age pose a threat to the agency's ability to continue its mission?

Answer. The FDA is facing a challenging pattern of workforce change and turnover. The U.S. Office of Personnel Management, OPM projects that about 293,000 full-time, executive branch employees, or19.2 percent of the civil service workforce will retire through 2005. FDA's recent workforce planning report indicates more than 30 percent of agency personnel will be retirement eligible by December 2005. The percentages for chemists, almost 40 percent, and consumer safety officers, 35 percent, are significant. FDA has been working for the last year and a half on developing a strategic workforce plan that addresses how to fill the void resulting from anticipated retirements through succession planning, development of leadership skills, and recruitment of critical occupations. Provided for the record is a graphic of this information.

[The information follows:]



Question. How is FDA conducting recruitment to attract new employees?

Answer. In March 2000 FDA formed a Recruiting Council comprised of representatives from all FDA centers and offices. The council members have been provided training on recruiting and pay incentives such as, Recruitment, Retention, and Relocation bonus incentives; Student Loan Repayment Program; Special Salary Rates; hiring at above-the-minimum-rate; and many other pay benefits. They have also been trained on all aspects of benefits and in Quality of Work Life issues such as

flexiplace, flexible tours of duty, transit subsidy and childcare subsidy. Special training has been provided for appointing authorities in Titles 5, 38, and 42, including Special Appointing Authorities, Career Intern Appointing Authorities, Presidential Management Intern authorities, and many other topics. They have also been given Diversity Recruiting Training. On-line job fairs have been initiated. Attendance at local job fairs has been shared and resources utilized well. In addition, the Council consolidates advertising and recruitment efforts to maximize opportunities for the FDA. As a result, the agency is hiring more well-qualified employees. In addition FDA plans to develop a resume database of employees and external experts in key skill areas, including those who are available on a part time, temporary, or contract basis. A list of other FDA plans is provided for the record.

[The information follows]

Other FDA Plans for Hiring Staff

Utilize internships as a way to introduce new ideas and perspectives;

Expand and further promote developmental opportunities and incentives such as tuition reimbursement and payment of college loans;

Create an emergency preparedness staffing model to fund special recruiting efforts;

Adopt a "life event" recruiting strategy, focusing on attracting potential employees during natural transitions, such as recent college graduates and private sector retirees, and,

Develop innovative ways to speed up the FDA hiring and decision-making process.

Question. Are there any FDA employment policies, such as mandatory weekend employment, that might serve as discouragement to new employees?

Answer. No, there are currently no policies of this type. We are very employee oriented in FDA and have developed many family friendly policies designed to help employees balance work and home life. We believe these policies encourage employees to work at FDA. However, there are some job requirements that may result in changes to our work policies in the future. For example, fresh seafood and produce are entering our major ports 7 days a week, 24 hours a day. The agency's responsibility to the public is to accomplish inspections that ensure a healthy food supply while handling perishable products as quickly as possible. Unnecessary delays resulting from the inspection process would impede commercial distribution and add to deterioration of perishables or other possible health hazards. Our goal, to the extent of our resource limitations, is to protect the public health while not impeding commerce and distribution of products throughout the U.S. To accomplish this goal we need the availability of laboratory staffs to receive and analyze samples. Since these imports arrive on a 24/7 schedule we are required to have a corresponding presence at import sites similar to U.S. Customs Service and USDA. We have been able to partially cover these requirements by asking for volunteers and paying overtime for the work. Unfortunately, the need for this type of coverage will grow. We will no longer be able to provide overtime. In those situations we may have to extend the workweek and include weekend and/or evening work schedules. We are currently discussing extending the workweek hours to address this growing operational need with the National Treasury Employees Union.

MILK PROTEIN CONCENTRATES

Question. As you know, I along with other Members of Congress last year requested the General Accounting Office to do an investigation and provide a report to Congress on the issue of milk protein concentrate importation and use in this country. One of the things highlighted by that report was the degree to which FDA is not enforcing the current standards of identity for cheese. This is very troubling to me and begs the question of what other regulations FDA is choosing not to enforce.

First, is this a question of having adequate resources or are you making a policy decision to ignore these standards.

Answer. FDA does not focus resources specifically on illegal use of Milk Protein Concentrates, MPC's. Use of MPC's would be dealt with during routine firm inspections under one of the compliance programs covering food composition, standards, labeling, or economics. Current priorities are focused on food safety. The use of MPC's in cheese is a labeling and composition matter that is not a high priority unless it could be linked to food safety. FDA devotes about one FTE to cheese standards of identity.

Question. Can you tell this Subcommittee to what extend you are currently inspecting plants for illegal use of MPC? What are you findings?

Answer. FDA does not focus resources specifically on illegal use of MPC's. Use of MPC's would be dealt with during routine firm inspections under one of the compliance programs covering food composition, standards, labeling or economics.

Question. What plans do you have to adequately enforce these important standards?

Answer. FDA is presently considering whether further resources might be devoted to ascertaining whether domestic or imported MPC's are being used in the manufacture of standardized products where such usage would not be permitted by the appropriate standards. However, use of MPC's is not considered a food safety issue. FDA resources currently focus on firms that manufacture products at high risk of contamination with foodborne pathogens.

PRESCRIPTION DRUGS

Question. Please summarize the type of activities FDA is engaging in, such as accelerating the approval of generic drugs, to contain the costs of prescription drugs.

Answer. We continue to refine the review process to increase efficiency. We are able to accept more electronic submissions to streamline the review process. The number of new staff hired in the last fiscal year are now fully trained and are demonstrating high levels of productivity. We continue to examine every aspect of the review process to try to identify problem areas to be addressed. We also plan to revise the current system for amendment designation, major versus minor, to improve total review times. While FDA does not have the responsibility to contain costs of drugs, we are doing everything to get generics to the market quicker. Other changes are also being explored.

COMBINATION PRODUCTS

Question. It is suggested that many developing products will fall into this category, which are products that are both a device and a drug or biologic.

Does FDA have a process in place for timely review of these applications?

Answer. Yes, FDA does have processes in place for the timely review of product applications for combination products.

Question. How do the various centers coordinate review of these products?

Answer. There are intercenter agreements for determining which Center has primary jurisdiction over particular types of combination products. For example, the Center for Biologics Evaluation and Research, CBER, has a number of standard operating procedures and policies, SOPPs, pertaining to various aspects of combination-product license applications processing. The SOPP subjects range from the administrative processing of license applications to the review and issuance of license-application action letters. One of CBER's SOPP's outlines the procedures for interoffice license application review consultation. The procedures outlined in that SOPP apply to intercenter consultation of combination-product license applications.

PREMARKET APPLICATION REVIEWS

Question. What level of resources would be needed for FDA to meet statutory deadlines for third party review for premarket applications?

Answer. FDA expects to expend the same level of funding in fiscal year 2002 as in fiscal year 2001 for third party review reviews of medical devices, plus corresponding pay increases in fiscal year 2002 associated with this function. The Agency is currently in the process of developing long range estimates for resource needs associated with medical device reviews. The estimates will include a range of estimated resources, assumptions in predicting the number of third party reviews, and caveats that indicate what types of uncertainties or changes would alter the estimates.

FDA is working with the medical device industry to increase industry's use of third parties to review premarket applications for low to moderate-risk devices. FDA has accredited twelve third parties, seven of which have reviewed three or more 510(k)s. The program now has 674 eligible devices. This represents a 300 percent increase in the number of eligible devices, and includes all Class I and Class II devices regulated by the Agency that meet the statutory criteria for review by Accredited Persons. In fiscal year 2000, FDA received 47 510(k)s with a third-party review compared to 32 510(k)s received in fiscal year 1999. This increase represents only 3 to 4 percent of 510(k)s that were eligible for review. FDA anticipates that the expansion will generate wider use of the third party review program in fiscal year 2001.

Question. Is FDA contracting out the review of applications?

Answer. When funding levels and circumstances permit, FDA uses its authority to contract with outside technical expertise when such expertise was needed. For ex-

ample, in fiscal year 2000, FDA hired 70 Special Government Employees to participate on the medical devices advisory committees. FDA has also contracted with the Oak Ridge Institute for Science and Education fellowship program to recruit experts to participate in reviews. FDA continues to contract with other experts when the need arises.

IMPORT USER FEE PROPOSAL

Question. Would the import user fee proposal affect the ability of U.S. device manufacturers to have ready access to bulk supplies and biomaterials procured from foreign sources? To what extent?

Answer. No, the import user fee will not affect the ability of U.S. device manufacturers to have ready access to bulk supplies and biomaterials procured from foreign sources.

WHITE OAK RELOCATION

Question. Was a cost comparison conducted to determine if FDA space could be located from the private sector at a lower cost than through GSA?

Answer. The General Services Administration, GSA, prepared a report to the House Economic Development, Public Buildings, Hazardous Materials and Pipeline Transportation Subcommittee. The report provided background information on the project as well as a comparison between the cost of leasing to the cost of government construction. Over a 30-year period the analysis shows a cost advantage for Government construction. For FDA, however, there are other benefits to capital funding for government construction.

A large portion of the Agency's space is constructed as laboratory space. As highly specialized space, laboratories require significant investment in capital improvements to the space for scientific and life-safety purposes. The capital investment in the laboratory areas drives the cost of the space much higher than standard office space. Because of this additional investment in the space the longer the government stays in its space the more cost effective it becomes. Competition in contracting requires that the Government recompete its leases periodically and this can result in the relocation from its facilities before its investment is fully amortized.

In addition, administrative budget guidelines calls for up front scoring of major lease acquisitions. The high cost of laboratory space would result in a lease that would score as capital authority. In the past the Office of Management and Budget has not approved capital lease authority, because it results in the government essentially paying for assets through a lease.

Question. What are the conditions of current FDA locations that would be relocated to White Oak?

Answer. FDA Headquarters is located in 40 buildings in 18 locations. While the Agency has managed to improve the quality of many of its offices, its laboratories are still in need of improvement. The Centers to be located in Prince George's County are effectively consolidated or construction is underway to replace their laboratories. Of the remaining Centers to be located in Montgomery County, CBER laboratories are housed on the National Institutes of Health campus and a private sector leased building and CDRH laboratories are located in approximately five buildings that are closely grouped in the Parklawn building vicinity. For the record I will provide the problems with these buildings.

[The information follows:]

Flexibility

Lab buildings, with the exception of MOD 1 in the Beltsville/Laurel facility, are unable to respond quickly or economically to changing programs/priorities or scientific/technical changes.

Modularity and a correspondingly flexible utility distribution network that permits maximum adaptability is non-existent in all older buildings.

Mechanical and electrical systems in older buildings cannot accommodate increased demands posed by modern laboratory operations and provide no capacity or flexibility for future loads.

Older buildings cannot be renovated or upgraded efficiently or economically.

Health And Safety

Overcrowding in laboratories present a definite safety hazard.

Poor ventilation in several of the buildings presents potential health or safety problems and may jeopardize animal health and hence compromise experiments.

Renovation of some buildings to bring them up to current codes and standards is not possible because of inherent design deficiencies. Health and Safety upgrades

generally are constrained by building layouts that are not designed for FDA's complex, modern laboratory requirements.

Quality of Environment

Overcrowded conditions are a major detractor to a quality workplace.

Location of buildings does not foster the proper opportunities for communication between colleagues or disciplines.

HVAC systems in many lab buildings are marginal or totally inadequate, resulting in poor ventilation, inadequate filtration of incoming air and the short circuiting between building exhausts and air supply intakes.

ANTIMICROBIAL RESISTANCE

Question. Please provide an update on the activities of the National Antimicrobial Resistance Monitoring System and include any observations regarding the problems of antimicrobial resistance and a public health issue as related both to animal drug use and human drug use.

Answer. The National Antimicrobial Resistance Monitoring System, or NARMS, monitors development of antimicrobial resistance of zoonotic enteric pathogens, or bacteria, from human and animal clinical specimens, healthy farm animals, and carcasses of food-producing animals at slaughter. Its purpose is to prospectively monitor the antimicrobial resistance of human, animal, and animal product isolates of selected enteric bacteria. Both human and animal isolates are tested since antimicrobial resistance is a food safety and human public health issue. The food safety hazard derives from the fact that if resistant enteric bacteria are present on the food, there is the possibility that people will become ill from those bacteria and any needed treatment may be difficult or protracted due to the resistance to selected antibiotic. The public health hazard derives from the misuse and overuse of antimicrobials leading to the emergence of drug-resistant bacterial strains. The continuing emergence of difficult to treat or untreatable secondary infections acquired in the hospital threaten the lives of hospitalized individuals and those with chronic conditions, as well as adding considerably to health care costs. The NARMS program is designed to identify trends over time in antimicrobial susceptibility and to identify areas for further investigation.

NARMS is expanding greatly in fiscal year 2001. Improvements to NARMS will enhance FDA's ability to protect public health, as well as provide the animal drug industry a source of baseline data for pre-approval studies on resistance. Enhancements to NARMS include the addition of new sources and increased numbers of isolates, expansion of new veterinary sentinel sites to ten and inclusion of retail food samples to increase the geographic distribution of the samples. In addition, FoodNet sites and ten State public health laboratories participating in NARMS will also receive increased funding to submit isolates, and an additional nine Food Net sites will begin to participate in NARMS in late 2001. FoodNet is a surveillance system that provides a network for responding to new and emerging foodborne disease outbreaks of national importance, monitoring the burden of foodborne diseases, and identifying the sources of specific foodborne diseases.

Each NARMS testing site will have the expertise of a molecular biologist to facilitate associated analytical microbiological research on the NARMS isolates, including molecular characterization. We also plan to expand the list of pathogens to be monitored by means of increased funding to the States and adding retail food sample collection. Moreover, the expansion and visibility of the NARMS program have increased both the demand for and the complexity of reporting results in a timely manner. To accommodate this demand, FDA has increased the resources provided to each testing site to facilitate efficient database management, increased frequency of reporting, and timely report generation. The expansion of NARMS has also identified the need to add a third testing site in order to handle the increased number of isolates. This requires that the exact same testing methods and isolate handling procedures be used as currently is done at the CDC and USDA facilitates. Because of this, FDA's Center for Veterinary Medicine, Office of Research microbiology facility has been selected to isolate, identify, and susceptibility test the retail food samples. In addition, in fiscal year 2002 we plan to expand the collection and testing of retail food, which began in fiscal year 2001 as a pilot project.

FDA plans to enhance our collaboration with international surveillance sites. On the international side. FDA continues to support a similar system to NARMS in Mexico. In fiscal year 2000, FDA began a pilot study with Mexico on a moniatoring system for antimicrobial resistance in Salmonella. Preliminary findings from the pilot study indicate a moderate carriage rate of Salmonella among healthy children in Mexico, but the isolates tend to be sensitive to all antibiotics tested. Veterinary schools in three Mexican States desire to join the project. As a first step veterinar-

ians are now in training at the hospitals to develop expertise in isolation and identification procedures. FDA is also supporting a World Health Organization training course on the surveillance of Salmonella and antimicrobial resistance in foodborne pathogens to be held July 2–13, 2001 in Merida, Mexico. Representatives from human and veterinary hospitals from 11 countries from Mexico, Central, and South America will receive training in standardized laboratory methods for the isolation, identification and antimicrobial susceptibility testing of foodborne Salmonella and the interpretation of results. The long-term objective of the course is to lay the foundation for participation in a regional laboratory network for the surveillance of foodborne disease and antimicrobial resistance in foodborne bacteria.

NARMS data was used in the development of FDA's Campylobacter risk assessment as revised January 5, 2001. Based partly on the results of the Campylobacter risk assessment, FDA's Center for Veterinary Medicine proposed to withdraw approval of the new animal drug application for use of the fluoroquinolone antimicrobial drug enrofloxacin in poultry. CVM has determined that the drug is not been shown to be safe under its approved conditions of use. The proposed withdrawal is based on several determinations. First, that the use of fluoroquinolones in poultry causes the development of fluoroquinolone-resistant Campylobacter in poultry. Second, that this fluoroquinolone-resistant Campylobacter is transferred to humans and is a significant cause of the development of fluoroquinolone-resistant Campylobacter infections in humans. Finally, that fluoroquinolone-resistant Campylobacter infections are a hazard to human health.

CONSUMER SAFETY

Question. Please provide an update on the activities of the Patient Safety Task Force and include incidents of suspected product adverse reactions and preventable medical errors.

Answer. Preventable patient deaths and injuries associated with the use of medical products are an important public health concern. A summary of actions is provided for the record.

The Final Summary of Food and Drug Administration Action Items: Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact.exemplifies FDA's dedication to preventing patient harm and improving patient safety. For fiscal year 2000, approximately 275,000 suspected product adverse reactions were reported to the Center for Drug Evaluation and Research's, CDER's Adverse Events Reporting System, AERS. Of the 275,000, 2800 were reports of medication errors. Since 1994, CDER has received approximately 15,000 reports of medication errors. Approximately 50 percent of these reports were related to the naming, labeling and/or packaging of drug products. There is a 69 percent morbidity rate, including a 10 percent fatality rate associated with these preventable medication errors.

[The information follows:]

Patient Safety Task Force Activities

National Summit on Drug Safety and Other National Meetings; Report to the Public on the Safety of Drugs, Devices, and Biologics; Expand Mandatory Reporting of Errors to All Registered Blood Establishments; Initiate Programs to Develop Additional Standards for Drug Names; Initiate Development of Packaging Standards to Prevent Dosing and Drug Mix-ups; Develop New Label Standards for Drugs to Address Errors Related to Medications; Implement Phase II of MeDSuN; Intensify Efforts to Ensure Manufacturers Follow Standards; Provide Access to Databases Linked to Healthcare Systems; Complete Online Adverse Drug Event Reporting System; Strengthen FDA's Analytic and Investigative Capacity; and, Strengthen FDA's Outreach Activities and Collaboration with Federal Agencies.

Question. Please provide an update on activities related to the 1988 Clinical Laboratory Improvement Amendments.

Answer. FDA has been responsible for determining the appropriate test complexity categorization of commercially-available test systems since January 2000, when this function was transferred to the agency from the Centers for Disease Control and Prevention, CDC. To date, we have completed more than 1,000 categorizations. These have included more than 150 waiver determinations. Waived tests are simple, and have an insignificant risk of an erroneous result. Although the vast majority of these waiver assignments have represented additions to waiver test categories already introduced by the CDC, several high profile new analytes have been waived, including two immunoassays for direct detection of influenza virus and a test for alanine amino transferase, or ALT.

The agency has sponsored a public workshop seeking input on the waiver process and has issued a draft guidance for public comment which is available on the CDRH

website. FDA has presented guidance on recommended new directions at the February 2001 Clinical Laboratory Improvement Amendments Committee, or CLIAC, meeting and hopes to finalize this guidance this summer.

AGRO-TERRORISM

Question. If an outbreak of BSE or Foot and Mouth Disease were to occur in the United States, it would be devastating to my State, and the economy of the entire country would suffer greatly. Recent news reports have cited how easily one of these animal diseases could be intentionally introduced into the country.

Please explain what the possibility is of someone intentionally introducing an animal disease in this country that could devastate the U.S. economy or have serious public health implications.

Answer. There is a real danger from the intended introduction of Bovine Spongiform Encephalopathy, or BSE, and Foot and Mouth Disease, or FMD, or other animal diseases into the United States. We acknowledge that the possibility that these and other foreign diseases would be devastating to U.S. agriculture and the economy if introduced into the U.S. due to the number of travelers returning from abroad, or visiting the U.S. each day. In addition, because of the volume of imported products, and the limited resources available for inspection, there are many possible ways for the intentional introduction of these diseases into the U.S.

Question. What actions are being taken by FDA to ensure that this does not happen? Please provide specific examples, including weaknesses of current preventive programs.

Answer. FDA works closely with the United States Department of Agriculture, or USDA, and State agricultural and veterinary agencies on implementation of the Bovine Spongiform Encephalopathy, or BSE, regulation and on controlling imported products that might introduce BSE into the U.S. FDA issues import alerts and bulletins, carries out import inspections at the border and airports, and inspects domestic manufacturers. The Agency also contracts with the States, who have conducted approximately 80 percent of the domestic inspections under the BSE regulation. FDA worked closely with the USDA in developing the import alerts and bulletins issued by FDA to ensure all animal products that might contain the BSE agent are identified and listed in the alerts or bulletins and are prevented from entering the U.S.

FDA is also a member of domestic and international working groups, and chairs the Senior Executive Interagency Steering Committee. A major goal of these groups is to ensure that imports of products potentially contaminated with BSE do not get into the U.S. The Senior Executive Interagency Steering Committee assures coordination among agencies, especially in three main areas: integrated contingency planning in case BSE or variant Creutzfeldt-Jakob Disease, or vCJD, disease is found in the U.S; identification of and response to potential vulnerabilities in the U.S. to BSE and vCJD; and coordination of risk communication plans by the various agencies. For the record we are providing a list of organizations that participate in the Senior Executive Interagency Steering Committee.

A Tri-country group of officials from the U.S., Canada, and Mexico has been meeting for three years on this issue. The U.S. hosted the first meeting in 1998 and is scheduled to host the meeting this year. The Tri-country group is comprised of technically trained individuals who know the day-in and day-out workings of the programs of their agencies. The group has been successful in harmonizing import policies and each member has implemented the last two import bans issued by the USDA.

An interagency working group on BSE started in 1996 is comprised of representatives from USDA's APHIS, FSIS, Agricultural Research Service, or ARS, FDA, NIH, CDC, and DOD. This group shares information, evaluates ideas and issues, and makes recommendations to participating agencies. Although import issues have long been addressed in the interagency working group and agencies have coordinated actions on import issues, to further strengthen coordination of import issues, an import subgroup to the interagency workgroup was formed to investigate and make recommendations relating to import issues. On January 17, 2001, FDA attended the initial meeting of the import subgroup, which consists of representatives from APHIS, FDA and Customs, to enhance joint procedures to prevent the importation of BSE material into the U.S.

FDA reviews entries of FDA-regulated products that consist of, or may contain, BSE risk products of animal origin and works with APHIS to ensure that such products do not enter the U.S. FDA is continuing to review its own admissibility requirements for FDA-regulated products that could pose a BSE-related risk.

FDA coordinates activities among Customs, USDA, APHIS and FDA, and is leading the efforts for developing procedures for multi-agency operations. FDA has provided FDA-product codes used in OASIS entry screening, to APHIS for their review, and has facilitated APHIS review of Customs HTS codes, used in Customs entry screening, which resulted in Customs issuing a directive to Customs field personnel on January 4, 2000, identifying specific HTS codes for products subject to the APHIS prohibition.

FDA, APHIS, and Customs have coordinated their response to the potential importation of BSE-related products. After APHIS issued their prohibition on the importation of BSE materials on December 7, 2000, FDA issued Import Bulletin 71B–02 requesting that FDA's field offices notify their local APHIS offices of any import suspected of containing BSE material. FDA issued a new Import alert on January 20, 2001, and a new Import Bulletin on March 1, 2001. These new import documents provide a detailed system for identifying at the ports products about which FDA has potential BSE concerns.

In addition, FDA has conducted two conference calls open to all 50 States including State veterinary and agricultural agencies in January and April to discuss the BSE issue. Both FDA and USDA participated in the call. FDA has met with the National Association of State Departments of Agriculture and American Association of Feed Control Officials to discuss the FDA regulation on prohibited materials and BSE, other Transmittable Spongiform Encephalopathies, and Foot and Mouth Disease. The FDA is also conducting two seminars on feed contamination issues including BSE during the week of May 1st in Texas and May 14th in Minnesota. Over 100 feed control officials from all 50 States attended.

It is important to note the FDA, as well as Customs and APHIS, are dependent upon the import community, which includes brokers, importers, and shippers, for the entry and manifest data with which to identify products consisting of, or containing, materials of concern from BSE and BSE-high-risk countries. A weakness in the system is that products which are not declared correctly or are described by importers or brokers so as to hide their animal origin or country of origin may not be detected though FDA import screening. Furthermore, the sheer volume of imported FDA-regulated products precludes the Agency from physically examining every entry into the U.S.

FDA will continue to aggressively enforce its regulations and work closely with those in the cattle and feed industries to minimize the risk of BSE introduction or spread in U.S. cattle herds. FDA will develop new guidance and regulations as the scientific knowledge about BSE expands. Working together with many counterpart agencies in the United States and around the world and with various industry and consumer groups, FDA will continue to protect the health of Americans and American cattle herds.

[The information follows]

Participates of the Senior Executive Interagency Steering Committee

The Department of Health and Human Service's Assistant Secretary for Science Policy; FDA; Centers for Disease Control and Prevention; National Institutes of Health, NIH; USDA's Animal Plant Health Inspection Service, APHIS; Foreign Agricultural Service; Food Safety and Inspection Service, FSIS; White House Office of Science and Technology Policy; U.S. Trade Representative; U.S. Customs; Department of State; Department of Defense; National Association of States Departments of Agriculture; National Association of Chief Livestock Health Officials; and Association of American Feed Control Officials.

LATEX ALLERGY

Question. It has been brought to my attention that as many as 18 million Americans suffer from a latex allergy, and workers in environments where latex gloves are commonly used are at a higher risk for developing a latex allergy. It has also been brought to my attention that latex proteins may be transferred onto food products when food handlers wear latex gloves.

Does the use of disposable latex gloves in food preparation and handling violate Section 402(a)(1) of the FDA Food Regulations? Please explain your conclusion?

Answer. Natural rubber latex (NRL) is approved for use in food contact situations. Therefore, the use of NRL gloves does not presently cause a food to be adulterated under section 402(a)(1). Nevertheless, we are concerned with reports from latex-sensitive individuals reporting adverse physical reactions from consuming food that has been in contact with gloves made from NRL. FDA is collecting additional information on this and is actively reviewing its policy on the use of disposable NRL gloves in food operatoins. In the meantime, FDA has advised the food industry to consider this information when deciding whether to use NRL gloves in food preparation.

As background, the Food and Drug Administration has jurisdiction over the use of NRL in food contact situations under the food additive provisions in section 409 of the Federal Food, Drug, and Cosmetic Act, FFDCA. Under section 201(s) of the FFDCA, components of food-contact articles are considered food additives if they migrate or are reasonably expected to migrate to food as a result of their intended use. The use of a food additive, like NRL in the production of food service gloves, must be determined to be safe by the FDA before it may be used in food, or become a part of food from processing, packaging, transporting or holding the food.

The food additive regulations describing the conditions under which NRL may be safely used, are found in 21 CFR 177.2600 Rubber articles intended for repeated use. This regulation, listing "natural rubber," was promulgated on February 1, 1963 in accordance with section 409 of the Federal Food, Drug and Cosmetic Act, FFDCA. It has been FDA's position over the years that, provided the compositional requirements of the regulation are met, the use of natural rubber as a component of food service gloves is in conformity with 21 CFR 177.2600, and is not an unsafe food additive. Nevertheless, as we evaluate the reports of adverse reactions from latex-sensitive individuals as noted above, we will also consider the relevance of that information to the safe use of the food additive.

Question. What steps has the FDA Center for Devices and Radiological Health taken to determine that the proposed maximum levels for medical glove powder and extractable latex proteins retained in medical gloves are safe for patients and workers?

Answer. The recommended limits of extractable protein and glove powder set forth in FDA proposed rule are not intended to be viewed as safe levels for all individuals in all circumstances. Rather, the recommended limits were meant to provide a way to indicate the level of protein and powder, allowing the consumer to make informed decisions. These recommended limits reflected the premise that lower protein and lower powder levels would reduce adverse health effects and state-of-technology considerations affecting glove properties, such as shelf life and strength, market availability, and cost.

We know of no way, with current scientific knowledge, to determine a protein threshold level that would be safe for all users and would not trigger any allergic reactions. Based on known mechanisms of allergy induction, allergy development is recognized as a gradual process and the response is considered dose-dependent. A large body of published literature demonstrates a correlation of the duration and intensity of exposure to natural rubber latex, NRL and the prevalence of NRL sensitivity. We have concluded that scientific knowledge does adequately show reduced exposure to NRL allergens would benefit users, minimizing the risk of sensitization and allergic reactions in sensitized individuals.

Cornstarch, which meets the specification for absorbable dusting powder in the United States Pharmacopoeia, is probably the most common lubricant for medical gloves. Cornstarch alone is not known to be a common allergen. However, cornstarch can adsorb some soluble proteins during the processing of gloves. The amount of protein binding has been shown to decrease with decreasing quantities of soluble protein and powder present. For this reason, FDA is encouraging glove manufacturers to reduce the amount of protein and powder remaining on medical gloves.

FDA also recognizes that glove powder is composed of particles that may cause foreign body reactions. Published studies and case reports identify adhesion and granuloma formation as a recognized complication associated with the introduction of glove powders into body cavities and suggest that clinically significant complications may not be rare. For this reason, FDA is encouraging glove manufacturers to reduce the amount of powder remaining on medical gloves.

We are now preparing a final regulation, which will reflect our response to comments received on the proposed rule, and our review of recently-adopted standards, such as ASTM D–3577, Standard Specification for Rubber Surgical Gloves, and ASTM D–3578, Standard Specification for Rubber Examination Gloves.

Question. Please provide me with an update on all activities taken by FDA to study safety issues associated with latex, including disposable latex glove use in food handling and preparation and the medical field.

Answer. FDA's Center for Food Safety and Applied Nutrition, CFSAN, is actively reviewing its policy on the use of disposable NRL gloves in food operations. CFSAN has received anecdotal information from latex-sensitive individuals reporting adverse physical reactions after consuming food that may have been in contact with NRL gloves. CFSAN has acted on this public health concern and added a caution in the model guidelines for retail food service operations—the 1999 Food Code—that says "This information should be taken into consideration when deciding whether single-use gloves made of latex will be used during food preparation."

"Healthy People 2010," the Surgeon General's national initiative that outlines a comprehensive nationwide health promotion and disease prevention agenda, has also addressed this concern. FDA led the development of the food safety objectives for the initiative, and specifically mentioned allergy risks associated with food, including the use of latex gloves.

To gain additional information regarding allergic reactions possibly due to the ingestion of food contaminated by NRL protein in retail settings, CFSAN has been collecting reports of such reactions from consumers who have contacted the Agency. CFSAN has contacted one of the latex allergy consumer interest groups, Latex Allergy Support Team and Information Coalition, Inc., to obtain its recommendations. CFSAN has also contacted Health Canada and the European Union to learn how they are dealing with NRL glove use in food operations. We are continuing to review research data.

Regarding the use of NRL gloves as medical devices, the Agency has conducted its own research; alerted the medical community; collaborated with manufacturers and private standards groups in lowering the level of latex proteins in medical device products; published a final rule requiring labeling of medical devices containing latex; and published a proposed rule reclassifying surgeon's and patient examination gloves. FDA has also encouraged companies to manufacture latex products containing the lowest possible protein levels, and to indicate these lower levels as established by a test developed by the American Society of Testing and Materials. With respect to concerns that FDA might ban powdered natural rubber latex, NRL, surgical and examination gloves, the risks posed by them do not meet the legal standard for banning a medical device. While FDA encourages the development of suitable substitutes, with effective barrier properties for NRL medical gloves, FDA recognizes that NRL affords a combination of qualities difficult to duplicate in a synthetic material. This combination of qualities supports the continued availability and selection of NRL medical gloves by users and purchasers as appropriate for their needs.

A large body of data has been generated through years of NRL glove use demonstrating their performance. With new synthetic materials, the data are limited. The Agency also recognizes that substitutes for NRL possess positive and negative attributes.

FDA is currently participating in a multi-center study, part of which will assess the effects of, various conditions of storage, materials with which gloves may come into contact, and fatigue and abrasion on medical gloves. The results of this study should provide additional information on the performance characteristics of both NRL and synthetic medical gloves.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

DRUG IMPORTATION LAW

Question. As you know, Congress last year overwhelmingly passed the Medicine Equity and Drug Safety Act (MEDSA), which would allow United States pharmacists and wholesalers to import FDA-approved medicines from other countries at lower prices and pass the savings along to their customers. Congress also at that time appropriated FDA $23 million in fiscal year 2001 for beginning to carry out this law.

I understand the Secretary of Health and Human Services has not yet made a decision about implementing this new law. Is that still the case?

Answer. Yes, this is still the case. Before the Secretary of Health and Human Services makes a recommendation to the President about implementing the human drug importation program, he needs to have a complete and thorough analysis of both the health safety and cost-saving components of program. Those analyses are on-going.

Question. Last year, the FDA estimated that the second year (fiscal year 2002) cost of implementing MEDSA to be $22.5 million. Yet the President's fiscal year 2002 budget provides only $2.95 million for MEDSA implementation. Should the HHS Secretary decide to move forward with implementation of MEDSA, would FDA have the resources it needs for an importation program?

Answer. The Secretary expects to advise the Administration on recommendations for addressing MEDSA soon. The nature of this recommendation will dictate the resources involved. Once this decision is made, we will be in a better position to determine the resources involved in a reimportation program.

DRUG IMPORTATION BY DRUG COMPANIES

Question. In 1999, Americans consumed $13.1 billion in pharmaceutical products imported by drug companies. These prescription drugs and other medicines came from countries ranging from Canada ($697 million) and the United Kingdom ($2.2 billion) to China ($391 million), Japan ($1.3 billion), and Mexico ($222 million).

Given that some FDA officials apparently have concerns that these same drugs imported by U.S. pharmacists and wholesalers would be unsafe, would the FDA support changing current law to also prevent pharmaceutical companies from importing medications? Or at the very least, should pharmaceutical companies be required to meet the same stringent record-keeping and testing requirements that U.S. pharmacists and wholesalers would be required to meet under MEDSA?

Answer. Currently, section 801(d)(1) of the Federal Food, Drug, and Cosmetic Act prohibits the importation, by anyone other than the manufacturer, of prescription drugs and insulin manufactured in the United States and exported. Thus, re-importation, other than as stated above, is not legal. Congress enacted this law to protect the public from prescription drugs that may have been improperly stored and handled abroad and to reduce opportunities for importation of counterfeit and unapproved prescription drugs. Some imported medications, even though they bear the name of a U.S. approved product, may, in fact, be counterfeit versions that are unsafe or even completely ineffective. FDA would support the law as enacted by Congress, however, appropriate resources would be required to effectively implement the law.

INSPECTION/TESTING OF IMPORTS

Question. I see that according to the FDA's fiscal year 2002 Budget Overview, the FDA inspects less than 1 percent of all imported products (food, medicine, medical devices, and other products under its jurisdiction) brought into the U.S., and I understand that your sampling and end-point product testing is also minimal.

It is my understanding that the cost estimate provided to the Appropriations Committee last year by the FDA assumes 100 percent review of the documentation for prescription drugs imported under MEDSA and authenticity/counterfeit testing on 10 percent of imported medicines, just to name a few of the assumptions behind the safeguards in MEDSA. It appears that these requirements are more stringent than those for other imported products.

You raised concern in your testimony that the FDA has a "seriously impaired capacity" to conduct inspections and testing on imported products. Given that medicines imported under MEDSA would receive considerably more oversight, couldn't American consumers have more confidence in the safety of products imported under MEDSA than they do in the safety of other products imported under the FDA's oversight?

Answer. The provisions of MEDSA call for safeguards to be in place that coincide with existing regulations, specifically sections 501, 502, and 505 of the FFD&C Act. In addition to these measures, MEDSA calls for pedigree documentation and testing in attempt to ensure the safety and effectiveness of imported pharmaceuticals. These proposed actions are more stringent, in some cases, than current surveillance practices for some FDA products, but the nature of the product is warranted under these circumstances. FDA believes that current Good Manufacturing Practices—GMPs—are the best way to help assure the quality and safety of FDA approved products, and the Agency cannot assure compliance with GMPs under this system. Sampling and testing a pharmaceutical product alone will not provide the assurance that a product is safe and effective. Either way, the Secretary of Health and Human Services has yet to make a final decision as to whether the implementation of MEDSA will "pose no additional risk to the public's health and safety."

VIOLATIONS OF THE PRESCRIPTION DRUG MARKETING ACT

Question. I've been told by the FDA in the past that the Prescription Drug Marketing Act prohibits the re-importation of a prescription drug or insulin that was manufactured in the United States except by the manufacturer. It has come to my attention that a number of foreign-based organizations have begun targeting U.S. medical professionals (doctors, pharmacists, etc.) to have them purchase prescription medicines from Canada on their patients' behalf. See attachments

Does this kind of effort violate the Prescription Drug Marketing Act? If yes, what steps is the FDA taking to stop this practice? If not, how is this practice different than what would be allowed under the Medicine Equity and Drug Safety Act (other than the fact that there are none of the safeguards that MEDSA contains)? How

can the FDA allow this practice to continue and at the same time maintain that importation of prescription drugs by pharmacists under MEDSA would be unsafe?

Answer. This is a very complex legal question. If the prescription drugs or the insulin are manufactured overseas, and covered by an approved NDA, importation into the U.S. would not violate PDMA. Such importation may, however, violate other provisions of the Food, Drug and Cosmetic Act, FD&C. Only drugs manufactured in the U.S., exported, and then offered for reimportation are prohibited from entry in the U.S. except in the case of a medical emergency and with the permission of the FDA.

MEDSA would have permitted the entry of U.S. manufactured prescription drugs back into the U.S. provided the drugs were approved for marketing in the U.S., in addition to other testing and documentation requirements. If the drugs are manufactured domestically and shipped to Canada, it would be a violation for anyone, doctor or patient, to reimport these drugs, absent implementation of MEDSA. Furthermore, in most cases, drugs under this scenario would not meet all of the prongs of the personal importation policy, such as no foreign versions of FDA approved drugs.

The targeting of U.S. physicians to purchase Rx drugs from Canada for use by the physicians' patients would be prohibited by 801(d) of the FD&C Act if the drugs are of U.S. origin and there is no documented medical emergency or if they are unapproved drugs being imported into the U.S.

GLOBAL TRADE/HARMONIZATION

Question. I was pleased to read in your testimony about the progress that the FDA has made towards harmonizing drug safety regulations, which will help to facilitate global trade.

While I'm glad that FDA is working towards harmonization that will ultimately make the global market work better for drug companies and make the FDA's regulatory job easier, how would harmonization ultimately benefit consumers if they continue to be denied access to lower priced pharmaceuticals from other countries?

Answer. Global harmonization of regulatory requirements should make drug development more efficient for drug companies, resulting in more drugs available, faster approvals, and possibly lower costs for United States consumers. However, harmonization does not directly address the reasons for differences in drug prices in different countries.

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

GENE THERAPY INDIVIDUAL TRACKING SYSTEM

Question. FDA after 7 years has not yet complied with Congress' direction to set up an individual gene therapy tracking system, can the agency explain this delay?

Answer. No existing system satisfied the requirements of the gene therapy database. Therefore, a new system must be developed. Since FDA shares with NIH, through the Office of Biotechnology Activities, OBA, the responsibility for oversight and safety of gene transfer research, FDA has been working closely with NIH to develop and implement a common database. This collaboration will result in a system that meets the needs of both NIH and FDA. Development of a new system is complex, and system development coordination between two agencies lengthens the development process. A joint system will save resources. Also, Secretary Thompson is committed to coordinating information technology throughout HHS to gain efficiencies and avoid redundancy.

Question. When is FDA planning on modifying their proposal so that it meets the congressional intent of tracking patients rather than merely being an adverse events monitoring system?

Answer. The gene therapy database will support collection of data on gene therapy product that can be analyzed for safety trends. Consideration of the appropriate information to be collected in long-term follow-up and how to facilitate collection of this information, is still underway. FDA sought the guidance of the Biological Response Modifiers Advisory Committee, BRMAC, on these issues in November 2000, and will seek further guidance on the revised proposal for long-term follow-up with the BRMAC. Data collection and submission will be the responsibility of sponsors of gene therapy trials who have applications with the FDA, and of investigators and institutions that the NIH oversees through the NIH Guidelines. Guidance is being developed to facilitate submission of data in an appropriate format and it is anticipated that investigators at the clinical site will be able to enter data directly into the database.

Question. Given the death of Jesse Gelsinger and the myriad of problems that have been found with gene therapy trials, shouldn't this be getting priority treatment from FDA and shouldn't the agency be meeting the congressionally mandated time-frames?

Answer. FDA does take very seriously our regulation of gene therapy clinical trials, as well as all clinical trials. The events associated with the death of Jesse Gelsinger did receive priority treatment within FDA. We believe we already do have a sound regulatory system in place for monitoring gene therapy clinical trials and clinical trials for other regulated products. Substantial progress has already been made on the development of a database and plans are proceeding under the direction of a steering committee involving both agencies, including individuals experienced with the Adverse Event Expedited Reporting System, AdEERS, and the National Xenotransplantation Database, NXD efforts.

Question. When can the committee expect that FDA will actually provide us with a full budget and detailed implementation plan for the gene therapy individual patient tracking system?

Answer. A preliminary report was submitted on March 31, 2001. An amended report, including a cost estimate and development schedule is currently under review within the Administration and is expected to be submitted shortly.

REUSE OF MEDICAL DEVICES PICKED OUT OF MEDICAL TRASH CANS

Question. I understand that most single use devices reprocessors set up bins in operating/procedure rooms for collection of contaminated devices. Hospital personnel then place certain used devices in these bins for reprocessing. However, I have recently heard, that at least one reprocessor has rented space in a medical waste facility where reprocessor employees open used sharps containers and waste bins to sort for devices to reprocess.

Is FDA aware of this practice? Does the agency think it is acceptable that anyone would be digging through medical waste to pick out medical equipment for recycling?

Answer. FDA is not aware of any commercial reprocessor, that is a third party reprocessor, currently renting space in a medical waste facility where employees open used sharps containers and waste bins to sort for devices to reprocess. We are, however, aware that in 1999, Alliance Medical Corporation, a commercial reprocessor, maintained a decontamination station in Apopka, Florida, where employees opened sharps containers to collect devices for reprocessing and reuse. These devices were sorted and cleaned at the Apopka facility and then were sent to Alliance's Phoenix, AZ facility for further processing.

When we learned of the activity occurring at Apopka, we immediately inspected the facility on November 17–19, 1999. Apparently, Alliance leased a room within the facilities of Stericycle/BFI Waste Systems where sharps containers were collected from local hospitals. The investigator determined that two Alliance personnel were assigned to sort and clean medical devices collected in disposable sharps containers. While performing these tasks, the employees were required to wear protective clothing, including surgical masks, safety goggles, latex gloves, heavy-duty gloves, gowns, foot covers, and hair covers. The devices were placed into two piles—one pile for devices found to be acceptable for reprocessing by Alliance and the second pile for devices unacceptable for reprocessing. The devices in the acceptable pile were cleaned and shipped to Alliance's Phoenix site for further processing. Devices in the unacceptable pile and the emptied disposable sharps containers were given to Stericycle/BFI to destroy by incineration.

At the conclusion of the inspection, FDA issued a list of Inspectional Observations that noted seven serious violations. As a result of the inspection, FDA issued a Warning Letter, dated December 23, 1999 to Alliance Medical. In a follow up inspection of the facility, on January 27, 2000, we determined that the objectionable conditions were corrected, however, Alliance Medical closed their Apopka facility last year.

Question. If not, what is the agency doing to stop this activity?

Answer. When we learned of the activity, like the one which occurred at Apopka, we immediately inspected the facility and issued a list of Inspectional Observations that noted seven serious violations. Further, as a result of the inspection, FDA issued a Warning Letter siting these violations. A followup inspection was then conducted to see if the objectionable conditions were corrected.

THE DANGERS OF CONTAMINATED BIOPSY FORCEPS

Question. FDA has previously described single use biopsy forceps as a device that is "high risk to reprocess." Nonetheless, reprocessed biopsy forceps have not been

required to demonstrate that they are indeed safe and clean after reprocessing. Recognizing the potential harm from unclean forceps, FDA stated that it would consider regulation of such devices on a case-by-case basis. Over seven months ago, a citizen petition was filed requesting that FDA better regulate reprocessed biopsy forceps.

Has FDA responded to this petition?

Answer. FDA is currently considering, and has not yet responded to, the citizen petition requesting a change in the exemption status for non-electric biopsy forceps.

Question. Will FDA require premarket submissions to show the safety of reprocessed single use biopsy forceps?

Answer. FDA is currently considering the citizen petition addressing this issue, and has not yet decided how this issue should be resolved. We will be pleased to provide an update on this matter once we have responded to the petition.

SCIENCE USED TO REVIEW THE SAFETY OF REUSED MEDICAL DEVICES

Question. The medical device trade press reported that one single use device reprocessor submitted an application for approval for a reprocessed Class III device which relied on 13 year old medical literature for its clinical studies.

Is this type of literature typically considered acceptable for original device premarket approvals?

Answer. Premarket approval, or PMA, applications must contain valid scientific evidence that supports the safety and effectiveness of the device. Valid scientific evidence includes scientific literature applicable to the device under review. FDA has received PMAs that contain literature as the primary valid scientific evidence to demonstrate reasonable assurance of the safety and effectiveness of the device. However, for most PMAs, prospective clinical information is necessary to determine the safety and effectiveness of devices and we expect that PMAs for reprocessed devices to meet the same data requirement as the original devices.

Question. Will it be considered acceptable for reprocessed device premarket approvals?

Answer. PMAs for reprocessed devices are subject to the same data requirements as the original devices. The specific data requirements will vary, depending on the device and the risks it presents.

TESTING FOR CJD

Question. Several news articles have reported deaths from CJD that may be tied to contaminated surgical instruments. One such article was from March last year, reporting out of Denver, Colorado. Another was in October last year in New Orleans.

What is the FDA doing to ensure that all reused medical devices are sterilized in a manner that would eliminate potential CJD contamination?

Answer. At this time, there is no scientific consensus that there is a proven method to decontaminate and sterilize medical devices and absolutely ensure total elimination of the CJD prion under all circumstances. The best available evidence at this time indicates CJD prions on medical devices can be inactivated if rigorous procedures are followed. The World Health Organization, or WHO, recommends, for example, that the device be immersed in sodium hydroxide and heated in a gravity displacement autoclave at 121 °C for 30 minutes; cleaned; rinsed in water, and subjected to routine sterilization. Not all devices can withstand this treatment.

FDA shares Senator's concern regarding potential exposure of patients to Creutzfeldt-Jakob disease, or CJD, as a result of inadequate or improper decontamination and sterilization of medical devices. However, we wish to emphasize that our concern is not limited to the reuse of single use devices but also extends to reusable, multiple use, medical devices. We are most concerned about medical devices that are used on known or suspected CJD patients that come in contact with high infectivity tissues such as brain, spinal cord, and eyes. It appears that the highest risk medical devices are surgical instruments used in neurosurgery and in ophthalmology procedures.

FDA has convened a work group to identify medical devices that are high risk for transmission of the CJD prion and to evaluate the adequacy of existing CJD guidelines for decontaminating and sterilizing medical devices. The work group includes representatives from other FDA centers as well as from the Centers for Disease Control and Prevention. The work group has identified infection control guidelines for handling CJD contaminated devices published by the WHO, draft guidelines published by Canada's Laboratory Center for Disease Control, and other guidance published by various professional associations. While there are many similar recommendations in these guidelines, there also are some conflicting recommendations. The majority of the CJD guidelines recommend disposing any CJD contami-

nated medical device whose materials or other characteristics prevent it from undergoing the above procedure.

One of the most critical factors in preventing CJD transmission among patients is the hospital's access to, and proper use of, appropriate autoclaving equipment.

Question. Does the agency have confidence in the ability of reprocessors to eliminate prions through such sterilization?

Answer. FDA is reasonably confident that any commercial reprocessor who passes FDA's good manufacturing practice inspection should be able to follow the World Health Organization recommendations for decontaminating devices, or similar guidelines. This does not necessarily ensure that all prions will be eliminated, because at this time, there is no scientific consensus that there is a proven method to decontaminate and sterilize medical devices and absolutely ensure total elimination of the CJD prion under all circumstances.

STANDARDS FOR DEMONSTRATING SAFETY AND EFFICACY OF REUSED DEVICES

Question. The general principle behind this requirement was that a reused device should meet the same standards that a new device is required to meet. The public expects that all medical devices that they may be subjected to would meet the same high FDA standard for safety and efficacy.

I have recently been troubled by reports that the FDA may not require reprocessor's PMAs to be of the same high standard as innovators' PMAs. The trade press has been suggesting that FDA may allow reprocessors to submit one application for a wide variety of devices within a certain category. As the agency, I am sure is aware, small changes in a device may alter its' properties including its ability to be safely cleaned substantially.

Will the FDA require a PMA for each different model of reprocessed device?

Answer. FDA will consider each type of reprocessed device on an individual basis. Some models of devices are so similar that these can be combined in a single PMA. Only closely related variations of the same type of device should be grouped in one submission or application. FDA advises reprocessors to examine device groupings that original equipment manufacturer's have developed in previous submissions as models that may be useful in considering the groupings of reprocessed single use devices. In these situations, data and information in the submission or application must support the safety and effectiveness of the entire group of devices in a PMA submission.

Question. Will the standards be identical to those required for OEMs?

Answer. Yes, the scientific standards for approval or clearance of a reprocessed single-use device will be the same as those for an Original Equipment Manufacturer, OEM. Any person who engages in activities triggering the Act's premarket requirements must comply with all applicable provisions of the Act. When a reprocessor, whether a third party or a hospital engages in reprocessing of a single-use device, it is responsible for submitting premarket submissions and proposed labeling, if applicable, to the FDA. FDA will review these submissions on the same basis, and using the same criteria, that would apply if the reprocessor were an OEM.

ORPHAN DRUGS

Question. This grants program is really the only hope for those Americans who suffer from one of the many rare diseases. Many of these diseases are fatal.

With the completion of the genome project, it must be expected that the Orphan drug program will receive a lot of new applications. Since by definition these diseases are rare, they are unlikely to have a lot of corporate sponsorship and therefore, the orphan drug product grants are very important to encourage development of cures for rare diseases.

Given the expectation of increased numbers of applications, has the FDA increased the level of funding in their budget request over and above last year's $12.54 million.

Answer. The funding level of the Orphan Grants Program increased in 2001 by $1 million for a total of $12.5 million. In fiscal year 2001, the Agency will award $12,514,000 for orphan product grants. No additional increases are planned in fiscal year 2002.

Currently, the orphan drug product grant money is only available to researchers after they have received approval for their investigational new drug. This can act as a barrier to some researchers because they do not have funding for the research necessary for the initial submission.

Question. Would FDA support legislative changes that would allow grant money to also be used to develop the new IND?

Answer. Under the orphan products grant program, funding is presently limited to human clinical studies under a valid Investigation New Drug exemption. This has served and continues to serve a critical need in orphan product development. Appropriations for this FDA program are limited and not all meritorious applications can be funded. We do not believe that broadening eligibility for these funds to drugs that are not yet being investigated under a valid IND is appropriate at this time.

GENERIC DRUGS

The Drug Price Competition and Patent Term Restoration Act of 1984, commonly known as Hatch-Waxman lay the ground work for encouraging the availability of lower-cost generic drugs. One of its provisions encouraged would be generic manufacturers to challenge the validity, enforceability or infringement of a patent on a drug by providing the generic challenger 180-days of marketing exclusivity. This provision has been gutted by an agency interpretation of the "pediatric exclusivity" provisions of the Food and Drug Administration Modernization Act of 1997 (FDAMA), which allows for the generic's exclusivity to run concurrently with an innovator's pediatric exclusivity rather than consecutively. The 1984 law at 21 U.S.C. 355(j)(5)(b)(iv) reads, "if the application contains a certification described in subclause (IV) of paragraph 2(A)(viii) and is for a drug for which a previous application has been submitted under this subsection concerning such a certification, the application shall be made effective not earlier than one hundred eighty days after—

—The date the Secretary receives notice from the applicant under the previous application of the first commercial marketing of the drug under the previous application

—The date of a decision of a court in an action described in clause (iii) holding the patent which is subject of the certification invalid or not infringed".

Question. Given the use of the words "not earlier than" above, would not a reasonable interpretation be that the agency has discretion to allow for the 180 days to start later ie., after the pediatric exclusivity has expired?

Answer. To date, FDA has not encountered a situation where pediatric exclusivity and 180-day generic exclusivity have actually overlapped. FDA has, however, received numerous comments from members of Congress, industry, and the general public, opining on the proper interpretation of the intersection of these two provisions should such a situation arise. In response to the widespread public interest in this subject, FDA opened a public docket to receive comments on the intersection of pediatric exclusivity and 180 day exclusivity and more particularly on the question of whether the two provisions should run concurrently or consecutively. When the docket closes, FDA will consider the letters, comments, statute, legislative history, and relevant court cases to develop an agency position on this complex question of statutory interpretation.

TISSUE SAFETY

Question. How much have you set aside in this budget request for the implementation of the new tissue rules?

Answer. In fiscal year 2002, FDA estimates the Agency will dedicate $4.35 million to the regulation of human tissue. The funds include costs associated with field inspections, medical device and biologics' expenditures, and systems costs. The majority of this money will be used to implement the new tissue rules. This is part of the President's fiscal year 2002 budget request for FDA.

FDA published three proposed rules to implement the proposed approach that included requirements for establishment registration and product listing; donor suitability determination; and good tissue practices. FDA issued the final rule for establishment registration and product listing on January 19, 2001. Under the final rule, establishments involving conventional tissues, such as bone, sin and corneas were required to register and list their products by May 4, 2001, and new establishments must register and list within 5 days after beginning operations. Establishments that manufacture non-conventional tissue, such as hematopoietic stem cells, are required to register and list beginning January 19, 2003. The proposed rules for the donor suitability determination and good tissue practice have not been finalized.

Question. I sent a letter asking for this budget information in January, when do you think FDA is likely to respond?

Answer. The Agency's response to your letter of January 9, 2001 to Dr. Henney requesting information on the cost to the FDA of fully implementing regulations regarding human cellular and tissue-based products will be forwarded soon. We apologize for the delay in responding.

It has come to my attention, that one tissue processing company is engaged in the practice of pooling multiple samples of tissue from multiple donors. This may

be extremely hazardous and could transmit disease to a large number of individuals. The tissue processing company, RTI received a waiver from New York to continue this practice.

Question. Does the FDA agree that it would be very unwise to allow any waivers to tissue processors to allow them to pool samples from many different individuals? I hope that FDA can firmly commit to avoiding such an approach.

Answer. FDA has concerns about the practice of pooling tissues from multiple donors during processing. In general, FDA believes that the risks associated with pooling tissues from multiple donors appear to far outweigh any identified medical benefits. Risks include exposure and possible cross-contamination from one tissue to another tissue of such infectious disease agents as viruses, enveloped and non-enveloped, bacteria, fungi, and prions, including known and emerging infectious agents. This could result in exposure of many more recipients than would occur from a single contaminated donation. Additionally, pool processing of tissues would make it difficult or impossible to investigate a problem with donated tissues based on an adverse reaction in a recipient because the investigation would need to deal with a large number of donations and a large number of other recipients. Due to these considerations, FDA's January 8, 2001, proposed rule Current Good Tissue Practice for Manufacturing of Human Cellular Tissue-Based Products; Inspection and Enforcement, provides that human cells and tissue shall not be pooled, that is, placed in physical contact or mixed in a single receptacle, during manufacturing. However, the proposed rule would permit an establishment to request an exemption or alternative from any donor suitability or good tissue practice requirement. FDA's Director of the Center for Biologics, Evaluation and Research, CBER, would have the discretion to grant an exemption or alternative based on a finding that such action is consistent with the goals of preventing the introduction, transmission, and spread of communicable disease and that scientific supporting documentation justifies the exemption and the proposed alternative satisfies the purpose of the requirement. FDA currently is reviewing comments to this proposed rule.

LATEX ALLERGIES

Question. Latex allergies have been on the increase over the past few years. Deaths associated with latex allergies have been reported to FDA.

It has recently been found that when food handlers use latex gloves and in particular powdered gloves that some of the latex proteins can contaminate the food. This is very problematic for someone who is highly allergic to latex.

Arizona is the first State to modify their food code to prohibit the use of latex gloves by food handlers. The State did an economic analysis of the alternatives to latex gloves including vinyl gloves and found that restaurants and other establishments would not have their expenses increased by moving to vinyl rather than latex gloves. Rhode Island and Michigan are now considering following Arizona's lead.

Is FDA aware of the increasing problem of latex allergies and the problems suffered by those who are exposed to latex due to food handlers wearing latex gloves?

Answer. Yes, FDA is aware that NRL gloves have been reported to cause allergic reactions in some individuals who wear latex gloves during food preparation and even in individuals eating food prepared by food employees wearing latex gloves. In the latter group, three reports suggest a severe reaction. FDA has received newspaper and journal articles, anecdotes from latex-sensitive people, government pamphlets, and other information on the emerging health problem of latex allergies. We are aware of experimental and clinical data that demonstrate: natural latex proteins can be allergenic; natural latex proteins bind to cornstarch; and, aerosolized powder from NRL gloves is allergenic and can cause respiratory allergic reactions. Published studies indicate that airborne glove powder may be an agent for sensitizing non-allergic individuals. In general, prolonged, chronic exposure is required to become sensitized to NRL, although genetic predisposition plays a role. One literature report concludes that NRL proteins may be rapidly transferred to objects by contact with powdered latex gloves.

The occurrence of allergic reactions to latex proteins through prolonged and repeated exposure to the skin, and through repeated inhalation, is well documented. While the majority of published reports in the peer-reviewed medical literature describe allergic reactions to NRL, the Agency is aware of three published reports that describe serious allergic reactions in persons following the consumption of food allegedly contaminated with NRL protein. We are currently gathering and evaluating reports of allergic reactions to food that has been in contact with latex products and plan to report the status of that investigation at the 2002 Conference for Food Protection.

Question. Is FDA aware that Arizona has now banned the use of latex gloves by food handlers?

Answer. Yes. A press release from Arizona announcing the approval of its new food safety requirements was issued on April 23, 2001. The new rules will become effective on October 3, 2001 and are the first update in 25 years to the Arizona requirements for food safety in restaurants and other food establishments. The new rules are a result of a three-year collaborative effort between government agencies, including FDA, food service industry representatives, school districts, and other concerned parties.

The new Arizona food service regulation requires people in food establishments handling foods that are ready-to-eat without additional cooking must use utensils or non-latex gloves when touching the food to prevent contamination.

Question. What is FDA doing to solve this problem nationwide?

Answer. FDA has acted on the public health concerns regarding the use of latex gloves by alerting the food service industry through Food Code activities, of the potential for serious adverse reactions in latex-sensitive individuals. As background, FDA has provided for over 50 years assistance to local, State, tribal, and federal jurisdictions that directly regulate food establishments at the retail level. One of the important ways the FDA, along with the Food Safety Inspection Service and the Centers for Disease Control and Prevention, performs that function is through the development of the Food Code. The Food Code consists of model requirements for safeguarding public health and ensuring food is unadulterated and honestly presented when offered to the consumer.

Regarding activities taken by FDA to study safety issues associated with latex, including disposable latex glove use in food handling and preparation, FDA's Center for Food Safety and Applied Nutrition, CFSAN, is actively reviewing its policy on the use of disposable NRL gloves in food operations. A thorough examination of the use of disposable natural rubber latex gloves will be conducted as a part of this review.

"Healthy People 2010," the Surgeon General's national initiative that outlines a comprehensive nationwide health promotion and disease prevention agenda, has also addressed this concern. FDA led the development of the food safety objectives for the initiative, and specifically mentioned allergy risks associated with food, including the use of latex gloves.

In April 2000, safety concerns of the use of latex gloves was an agenda item at the Conference for Food Protection, CFP. The Conference holds a biennial meeting of Federal, State, industry, consumer, and academia representatives who strive to assure the adoption of science-based criteria for the preparation, service, or sale of safe food at the retail level.

A request was brought forth to the 2000 Conference to ban the use of latex gloves in retail food facilities. CFSAN representatives suggested that food facilities consider supplying gloves made of alternative materials for use by their food workers to protect food workers themselves from possible latex sensitivity, and to prevent the possible transmission of latex proteins via food to latex-sensitive consumers. The CFP final recommendation was for FDA to find out more information on the use of latex gloves in the retail food setting and report back to the Conference at its 2002 meeting. The FDA plans to report the status of its policy review at that meeting.

Question. Does FDA have the authority to ban the use of latex gloves by food processors and food handlers including those in restaurants?

Answer. Natural rubber latex (NRL) is an approved food additive under 21 CFR 177.2600 Rubber articles intended for repeat use. As such, NRL may be used in the manufacture of gloves used by food processors and food handlers, including those in restaurants. If FDA had a basis for concluding that the natural rubber latex in the gloves was not a safe food additive, it could propose the issuance of a regulation amending or repealing the regulation, in whole or in part. If FDA repealed the food additive regulation related to the use of NRL in the manufacture of gloves used by food processors and food handlers under section 409 of the Federal Food Drug and Cosmetic Act (21 U.S.C. 348), the use of NRL for such purpose would be deemed to be unsafe, and thus, unlawful under the Act.

The agency is examining available information on potential risks of allergic responses to NRL from use in latex gloves worn by food service workers. To date the agency does not have sufficient evidence to propose to repeal the regulation in 21 CFR 177.2600 as to such use nor has anyone petitioned the agency to take such action. The agency has added a caution in the model guidelines for retail food service operations—the 1999 Food Code.

GENETICALLY MODIFIED ORGANISMS

Question. What is FDA doing to go beyond its current regulatory proposal for the regulation of genetically engineered crops to prepare for the arrival of more complex biotech foods? Some examples of these are: genetically engineered salmon; modified farm animals like pigs or cows; or foods engineered to produce drugs, or high dosages of vitamins.

Answer. Biotechnology researchers and companies are turning to animals to be both the manufacturing sites for biotechnology products and the recipients of biotechnology-derived products. Both areas are on the upswing and FDA has been working with a fledgling industry providing up-to-date communications to a concerned public.

Genetically engineered animals contain new animal drugs. Under the Federal Food, Drug and Cosmetic Act, FFDCA, a "drug" includes "articles . . . intended to affect the structure or any function of the body of man or other animals". Because an introduced genetic construct will of necessity "affect the structure or . . . function" of a genetically engineered animal, the genetic construct is a "drug." The genetic construct may also produce a protein that is a drug. Use of a new animal drug is considered "unsafe" under the FFDCA unless the FDA has approved an application for that particular use. Thus, unlike genetically engineered crops, genetically engineered animals are subject to the new animal drug approval process This process requires that sponsors demonstrate the safety of the new animal drug to both the animal and, for food-producing animals, to humans who eat the animal.

The use of animals from food-producing species in the production of diagnostic kits and other biomedical products includes a special responsibility to plan for the ultimate disposition of culled animals. If animals are milked or they produce offspring, the planning should address safe disposition of the milk and offspring as well. Even though these animals are food species and are sometimes being grown in a farm-like setting, they may not be suitable for use as human food or to be rendered and processed into an animal feed component.

Ag-Biotech animals and products are coming closer to commercial feasibility and there has been a corresponding need by FDA to identify and to assist developers through the regulatory process. The public is becoming increasingly aware of these products as well, and FDA has given large numbers of presentations to scientific and industry associations and the press in the past year. Perhaps the best known example of a developing ag-biotech product is the growth hormone-enhanced Atlantic salmon, currently under review at FDA. There is similar research ongoing in other fish species, invertebrates, chickens, pigs, goats, and cattle worldwide. There are corresponding increases in inquiries at the FDA for investigational applications and increased outreach to researchers who may not be aware of the need to obtain pre-market approval for their genetically engineered animals.

FDA is requiring that the company proposing to market the genetically engineered salmon provide data that its salmon is safe for human consumption, and safe for the environment. FDA is contracting with the National Academy of Sciences/National Research Council to examine risks and risk assessment methods for animal biotechnology products. An expert committee of the National Research Council's Standing Committee on Biotechnology, Food and Fiber Production and the Environment will meet three times and include a public meeting to gather information and then prepare a brief consensus report identifying risk issues concerning products of animal biotechnology. The committee will probably include a review of animal cloning, use of viral vectors in genetically engineered animals, and other pressing scientific issues in animal biotechnology.

Question. Does the agency have resources adequate to the task as these foods begin to approach market?

Answer. The Animal Drugs and Feeds requested increase of $200,000 in animal biotechnology for fiscal year 2002 will resource the first step in a program as these foods begin to approach market. With funds requested in fiscal year 2002, we will prepare guidances for industry explaining that animal biotechnology products are subject to premarket approval as new animal drugs and describing the information required to show safety and effectiveness for this class of products. In addition, as part of our surveillance efforts, FDA plans to develop an inventory of firms that are developing products derived from bioengineered animals.

As more steps are taken, we will evaluate our need for additional resources. Additional steps needed as product lines begin to develop could include research and the development of guidance on whether various lines of transgenic animals can be safely crossbred and if so, how these crosses will be tracked; detection of unapproved transgenes in imported foods derived from animals, including seafood; evaluation of

and monitoring of the effectiveness of various environmental containment strategies for genetically engineered fish and shellfish, birds, etc., that could become feral and become established in the environment.

Biotechnology products in animals are diverse and currently mostly in the concept phase. The Animal Drugs and Feeds Program is currently spending, and will continue to need to spend, resources working with these entrepreneurs and scientists to address food safety, public health and environmental safety as these new companies and product lines are born.

MAD COW DISEASE/BSE

Question. As you know, I announced last month that I will be introducing legislation soon to strengthen our national defenses against the possible introduction of BSE (mad cow disease). One question that arises in preparing the bill is this:

Given the need for coordination of our programs at the border, at feed mills and farms, and with our surveillance efforts, is there a need to identify a single, lead agency on mad cow issues?

Answer. No, the current comprehensive effort is working well, with FDA continuing to work closely with USDA, State agricultural and other State agencies on implementation of the BSE regulation and on controlling imported products that might introduce BSE into the U.S. The Agency also contracts with the States, who have conducted approximately 80 percent of the inspections under the BSE regulation. FDA worked closely with USDA in developing the import alerts and bulletins issued by FDA, to ensure all animal products that might contain the BSE agent are identified and listed in the alerts and bulletins and are prevented from entering the U.S.

FDA is also a member of domestic and international working groups, and chairs the Senior Executive Interagency Steering Committee. A major goal of these groups is to ensure that imports of products potentially contaminated with BSE do not get into the U.S. The Senior Executive Interagency Steering Committee assures coordination among agencies, especially in three main areas: integrated contingency planning in case BSE or variant Creutzfeldt-Jakob Disease, or vCJD, disease is found in the U.S; identification of and response to potential vulnerabilities in the U.S. to BSE and vCJD; and coordination of risk communication plans by the various agencies. The following organizations participate in the Senior Executive Interagency Steering Committee: Department of Health and Human Services Assistant Secretary for Science, FDA, CDC, NIH, USDA's APHIS, Foreign Agricultural Service, FSIS, White House Office of Science and Technology Policy, U.S. Trade Representative, U.S. Customs, Department of State, DOD, National Association of States Departments of Agriculture, National Association of Chief Livestock Health Officials, Association of American Feed Control Officials.

An interagency working group on BSE started in 1996 with USDA's APHIS, FSIS and Agricultural Research Service, or ARS, FDA, NIH, CDC, and DOD represented. The purpose of the group is to share information, evaluate ideas and issues, and take suggestions back to participating agencies.

FDA continues to coordinate activities among U.S. Customs, USDA/APHIS and FDA, and is leading the efforts for developing procedures for multi-agency operations. From our experience the level of communication among these groups is excellent. A single, lead agency is not necessary.

Question. And if so, which agency should that be?

Answer. Although we believe a single lead agency is not necessary, if one is to be formed, it should be an agency that already deals with public health matters such as one of the agencies most experienced in these matters in DHHS.

NATIONAL CENTER FOR FOOD SAFETY & TECHNOLOGY

Question. FDA provides scientific and administrative personnel, laboratory and pilot plant equipment, and funding to the National Center for Food Safety and Technology (NCFST) located near Chicago, Illinois. NCFST is a unique research consortium of scientists from academia, FDA, and food related industries. Funds to run the Center are also provided by the Illinois Institute of Technology.

How much of your propose budget is to be designated for NCFST? How does that compare to previous funding levels?

Answer. In fiscal year 2002, FDA plans to expend $3,000,000 in support of the National Center for Food Safety and Technology's—NCFST—collaborative research activities. This collaborative research effort between government, academia, and private industry studies the food safety implications of emerging technology in food processing, packaging, and biotechnology. The NCFST is a cost effective resource for developing and exploring new technologies. By spreading the cost and risk of doing

research, companies can control their costs while putting themselves on the cutting edge of new technology developments.

NCFST's Internet web-site includes an announcement, "Hire Our Graduates." The Master of Science degree program in food safety and technology or food process engineering educates students to be food safety experts for the private sector and for Federal and State regulatory agencies.

Question. How many of NCFST's graduates are electing public service careers?

Answer. The NCFST Masters Degree programs in Food Safety and Technology and in Food Process Engineering are relatively new. To date there have been two major categories of graduates from the programs: foreign students and part-time students already employed by industry. Most of the foreign students have returned to their native countries where they are putting the food safety training gained in the graduate program to use enhancing technological development in and safety of their countries' food supplies and exports. Part-time students have all been employed while participating in the graduate program; most in the food industry. Thus, NCFST has had no graduates available for placement with either FDA or USDA. They are in the process of stepping up recruitment of new students, particularly students that will feed into the U.S. job market, including FDA.

Question. Are FDA's salaries competitive to attract these highly skilled graduates to the Federal workforce?

Answer. We have no information on salaries earned by students returning to their native countries or by students already employed in the food industry that might me useful in determining salary comparability of the graduates to the Federal workforce.

TOBACCO

Question. I am disturbed by reports that two tobacco companies are preparing to market a new tobacco product that they are calling a cigalette. It is basically candy a mint-flavored tobacco lozenge packed with nicotine. The companies are making health claims about this product-contending it is a reduced-risk alternative to traditional cigarettes.

These are excerpts from a press release on Star Scientific's web site:

ARIVA(TM) also is directed to conventional smokeless product users who want the option of choosing a smokeless tobacco product that contains less cancer-causing toxins (TSNAs) than conventional products, while avoiding the need to expectorate."

"Mr. Perito added that several highly respected independent scientific and public health consultants, as well as members of the company's Scientific Advisory Board, had urged Star to accelerate the development of non-combustible tobacco products so as to provide adult tobacco users smokeless tobacco product choices that significantly reduce exposure to the cancer-causing toxins that are delivered in all conventional cigarette products (TSNAs).

Are you familiar with this product? Will the FDA assert its jurisdiction under the Food, Drug and Cosmetic Act?

Answer. While FDA has limited information about the product ARIVA obtained from news sources and Star Scientific's web site, the agency has asked the company to provide more. A company official has assured FDA that Star Scientific will provide the agency the requested information before the company test markets the product. The official declined to provide the information immediately but indicated that he would do so six to eight weeks before test marketing commences latter this year. The agency will carefully review the information it receives and determine whether it has jurisdiction over this product.

As we all now know, the tobacco industry has repeatedly made claims of reduced risk that later proved to be unfounded, deceptive and, in far too many cases, lethal. "Light" cigarettes that boasted lower levels of tar in cigarette smoke were introduced in the 1960's with claims of less risk to smokers. In fact, the introduction of "lights" did not improve public health and may in fact have resulted in an increase in the incidence of disease.

Today we face an increase in an entire new generation of products that promise to give smokers a safer alternative to quitting or not starting. In light of the IOM report, we know there is inadequate evidence to support these conclusions.

Question. What actions is the FDA taking to protect Americans against new deceptions that could cost even more lives?

Answer. In *Brown and Williamson* v. *FDA,* the Supreme Court limited FDA's ability to take action regarding tobacco products. As pointed out in the recent IOM report, A Blowing Smoke, a great deal more information is needed to determine the scientific validity of the reduced risk claims that appear on certain products being

introduced to the market. The agency would take appropriate action if we determine that any such products fall under our jurisdiction.

QUESTIONS SUBMITTED BY SENATOR TIM JOHNSON

FDA'S OFFICE OF GENERIC DRUGS

Question. How do you anticipate the Office of Generic Drugs managing the prospect of a significant influx of abbreviated new drug applications, and has the administration requested an increase in resources to meet this demand?

Answer. It is difficult to predict the submission rates for Abbreviated New Drug Applications, ANDA's. Currently, there is no expectation for a substantial increase in submission of ANDA's. However, we continue to streamline our processes to enhance the generic drug review process. We are able to accept more electronic submissions to streamline the review process. The new staff hired in the last fiscal year are now fully trained and are demonstrating high levels of productivity. We continue to examine every aspect of the review process to try to identify problem areas to be addressed. We also plan to revise the current system for amendment designation, major versus minor, to improve total review times. Other changes are also being explored.

Question. Furthermore, does the administration plan on investing in a consumer education program designed to increase the awareness and safety of FDA approved generic drugs?

Answer. In fiscal year 2001 we have embarked on several information campaigns directed at consumers and the pharmacy community. There is a belief among segments of the patient population that generic drugs are not as good as innovator products. In order for consumers to understand how we approve generic drugs, we need to provide more information so they understand the scientific basis behind our decisions. We want consumers to know that we stand behind the generic drugs that we approve and that they are pharmaceutically equivalent to the innovator product.

FDA EFFORTS TO PREVENT BSE OR "MAD COW" DISEASE

Question. First, can you or Dr. Sundlof provide the subcommittee with an update on the compliance rate of U.S. feed mills and renderers w/the FDA feed mixing ban?

Answer. As of May 23, 2001 the out-of-compliance rate is 24 percent for those firms known to be handling prohibited material as of their last inspection. These include renderers, feed mills and protein blenders.

Question. What steps is FDA willing to take if any feed mill or rendering plant does not meet your September 30, 2001 deadline for compliance with the FDA "feed mixing ban?"

Answer. FDA's goal is to inspect 100 percent of renderers, protein blenders and feeds mills and to inspect as many ruminant feeders as possible. We hope to realize 100 percent compliance with the 1997 feed rule. FDA is prepared to initiate enforcement action as appropriate under the Federal Food, Drug and Cosmetic Act, to ensure compliance with the feed rule. Actions will be taken at a level that corresponds to the risk to public health, and may include issuance of warning letters, product seizure, injunctions, or prosecution, in addition to firm-initiated recalls to remove adulterated or misbranded products from the market. The States also may initiate enforcement actions, and FDA will work in cooperating with its State counterparts.

Question. Will the re-programmed funds ($2.4 M in fiscal year 2001) within FDA's Center for Veterinary Medicine be sufficient to handle the inspections and reinspection?

Answer. In fiscal year 2001, FDA has planned on spending approximately $3.8 million, but given the recent events related to BSE in Europe, FDA has adjusted its plan. FDA has internally shifted resources from lower priority programs to cover domestic inspections, import entry review, and import label examinations. In fiscal year 2001 FDA also tapped into the Contingency Fund for one-time funds of $2.4 million to support usual costs of BSE-related activities. These funds covered additional State contracts for domestic inspections, training for FDA employees, and importers, scientific equipment for laboratory analysis, methods development and validation, IT enhancements, market studies to identify food and cosmetic products containing specific risk products, and overtime and travel costs incurred by the field. FDA believes the total fiscal year 2001 spending for BSE activities will be approximately $14.0 million. We expect this will be sufficient to complete 100 percent inspection of all feed mills, renderers and protein blenders by the end of fiscal year 2001 as well as re-inspection of facilities found non-compliant with the 1997 feed regulation.

The Agency has requested an additional $15.0 million for fiscal year 2002 for BSE activities. With $13.100 million requested by the Animal Drugs and Feeds program.

FDA ADVISORY COMMITTEES' "CONFLICT OF INTEREST"

Question. In the testimony you have submitted to the subcommittee, you stated that, "Research expenditures by the pharmaceutical industry alone have tripled since 1990. More and more complex products, which arrive at FDA's gate for preclinical and clinical studies design consultation, for marketing application review, and, for post-approval continuing reassessment are products of the growing NIH research budget and of academic and industry research fueled by NIH. We will ensure that FDA will not become a bottleneck in getting these public health breakthroughs to the public while serving as the trusted, independent, efficient gatekeeper it is now." However, in recent years, concerns have been raised about the truly "independent" nature of the activities of FDA Advisory Committees. In fact, the Los Angeles Times did a series of articles on FDA advisory committees and the conflicts-of-interest that are pervasive among members of the committees. The findings included that some FDA advisory committee members are allowed to remain as consultants or researchers for the same companies whose products they are evaluating. In the case of Rezulin (rez-uh-lin), which was pulled from the market last March due to its alleged connection with nearly 400 deaths, it was noted that FDA officials collaborated closely with the makers of the drug, providing "inside information and favors at critical moments throughout the development and marketing of Rezulin." To the agency's credit, FDA released an internal report acknowledging that the agency committed "possible missteps" in its handling of this case.

However, what assurances can you give this subcommittee that your budget request will help FDA address these apparent conflicts of interest in the drug approval process so that we can be assured that the public's trust is not being violated, nor their health jeopardized, by these advisory committees?

Answer. All government advisory committees are regulated by the Federal Advisory Committee Act of 1972. FDA adheres to a comprehensive and detailed program with multiple levels of review to ensure that the agency receives up-to-date, unbiased opinions from its advisory committee members. FDA engages in a vetting process that takes action on every reported financial interest. The majority of conflict of interest waivers are granted for relatively minor financial interests often unrelated to the matter before the committee. Whenever a conflict of interest waiver is granted, it is publicly announced at the beginning of the meeting and becomes part of the official record. In addition, the screening process and the criteria used to determine if a waiver should be granted are documents that can be publicly released. Members with conflicts of interest that exceed the agency guidelines do not participate in the advisory committee meeting.

FDA's conflict of interest program for advisory committee members is subject to review by the Department of Health and Human Services and the United States Office of Government Ethics, OGE. During the most recent audit of our conflict of interest program, OGE reported that not only is FDA's program a sound one that met all requirements, but that it should be regarded as a model for other Federal agencies. Finally, it should be noted that the opinions of the advisory committees are not binding on the agency, and the final decision whether to approve a drug or not lies with FDA.

Question. And, in your opinion, what can FDA do to increase transparency in the drug approval process to ensure that FDA continues to be the independent, efficient gatekeeper that you perceive it to be?

Answer. We believe that FDA has already made progress in increasing the transparency in the drug approval process. The advisory committee procedures for the Center for Drug Evaluation and Research, CDER are designed to facilitate public participation at open advisory committee meetings. For example, unless it is otherwise exempt from disclosure under applicable laws, written information provided to members of an advisory committee in connection with an open advisory committee meeting convened by CDER is made available for public inspection and copying before or at the time of that meeting. CDER currently discloses these documents on the FDA Home Page at the following address: www.fda.gov/ohrms/dockets/ac/acmenu.htm. In addition, we also attempt to publicize on our internet site all relevant information about drug approvals. This may include information directed to the consumer in plain language or directed to health care providers. FDA also continues to invest resources in public information efforts with the goal of providing complete and accurate information to the American public in as timely a manner as possible.

FLU VACCINE

Question. In recent months, I, along with Senator Wyden and several colleagues in the House of Representatives, requested the GAO to conduct a study on the most recent shortage of influenza vaccine during the 2000–2001 flu season. This report is due to be released shortly and I hope that it will provide some insight as to what improvements can be made and what lessons can be learned from the experiences of the past year.

Fortunately, in SD, we were spared a large-scale epidemic but the shortage of influenza vaccine left many high risk individuals without any access to vaccine. In fact, several health care facilities that deal almost entirely with high risk individuals reported to my office of having to pay as much as 3 to 10 times higher prices per dose through secondary distribution channels in order to have any supply at all.

When looking into the challenges of last year, it appears that there was little communication between agencies and jurisdictions, including the FDA, CDC, and State health officials, on what contingencies were in place to deal with a shortage as large as the one experienced last year.

Can you offer any insights as to what role the FDA can and is playing in the development of an action plan to deal with possible future shortages of this and other vaccines, many of which have a tremendous impact on the health outcomes of our nation's most vulnerable populations?

Answer. The demand for influenza vaccines has been increased by the general acceptance that inactivated influenza vaccines are safe and effective, by the recognition that increased risk for complications from influenza infection is related to both age and underlying medical conditions, and by the implementation of federal reimbursement for vaccine for Medicare beneficiaries. The supply of vaccine is dependent upon, among other things, the capacity and interest of pharmaceutical companies to manufacture the vaccines. The supply has increased from approximately 20 million doses per year in the mid 1980's to approximately 80 million doses per year by the late 1990's. Production of the vaccines is unique among vaccine products in that the viruses in the influenza vaccine are changed on a frequent basis and the time for making each year's new vaccine and distributing the vaccine for use is fixed at 6–8 months. Influenza viruses are constantly evolving to escape immunologic inhibition, which requires change in the vaccine to ensure vaccine effectiveness. Each change in vaccine virus means that manufacturers must work rapidly to determine how to optimize yield of the new virus. In addition, the Center for Biologics Evaluation and Research must make reagents to permit standardization of the potency of the vaccines.

This past year, one of the influenza vaccine manufacturers, Parkedale, stopped producing and marketing vaccine; this was, presumably, a business decision. We will provide for the record a list of those actions being taken to ensure against a possible future shortage of the flu vaccine as well as other vaccines.

[The information follows:]

Actions Being Taken to Ensure Against Future Vaccine Shortages

Advise national and international public health groups such as the World Health Organization WHO, the Centers for Disease Control and Prevention, CDC, the National Institutes of Health, and the National Vaccine Program Office for the purpose of selecting new influenza viruses to be used in vaccine manufacturing. Every year in January, CBER's Vaccines and Related Biological Products Advisory Committee meets to make United States Public Health Service recommendations for the strains to be used in making vaccines and inform manufacturers of the choices;

Perform serologic testing to determine whether current vaccines produce antibodies that can inhibit the new influenza viruses considered for use in vaccines;

Work with manufacturers throughout the year to collect information on the capability of new influenza viruses to be used for large-scale production of influenza virus vaccines;

Perform applied research to develop reassortant influenza viruses adapted to grow better in eggs than the naturally occurring viruses. The high growth reassortants help to increase the yield influenza virus in each batch produced and reduce the time required for large- scale manufacturing;

Produce, calibrate, and distribute reagents to be used in determining the potency of vaccines. For each new virus included in vaccine, the reagents include a virus-specific preparation of influenza antigens and a virus specific antiserum. CBER also provides the antiserum to CDC and WHO for national and international surveillance of influenza viruses;

Test on all influenza vaccines used in the United States. The testing is emphasized during early production steps to avoid later rejections of material. All manu-

facturers' working seed viruses are tested by CBER to ensure that the antigenic characteristics of the viral hemagglutinin match the recommended reference virus. Approved seed viruses are used to produce monovalent components of the trivalent vaccine. Monovalent vaccines are tested by the manufacturers and CBER for potency, and the results from both are used to assign a potency value to each monovalent component for use in formulation of trivalent vaccine;

Conduct complete reviews of all lot-release submissions for the influenza virus vaccines;

Work with manufacturers of virus vaccines to develop additional vaccines that may be used in the future such as live-attenuated influenza virus vaccine and purified protein hemagglutinin vaccine produced by recombinant DNA technology; and,

Facilitate manufacturing changes that increase vaccine production.

DIRECT TO CONSUMER ADVERTISING

Question. A New York Times article from earlier this week cited a study by the National Institute for Health Care Management that spending on prescription drugs increased by almost 19 percent last year, to $132 billion. This study further noted that, "the recent rise in pharmaceutical spending is due, in large measure, to the growth in sales of a relatively small number of medicines. Most of these drugs are blockbusters many Americans have come to know by name and see advertised more and more."

As you well know, due to FDA's rule change on direct-to-consumer advertising approximately four years ago, television ads for prescription drugs are now very common. In fact, pharmaceutical companies spent an estimated $1.7 billion on TV ads in 2000, 50 percent more than what they spent in 1999, more than double the 1998 amount. Interestingly, the United States is only one of two countries (New Zealand is the other) where prescription drugs are aired during prime time television hours. Proponents of the FDA's policy shift say it creates a more informed patient because viewers see the ads, then have an intelligent give-and- take with a doctor. Critics say the shift creates more business for pharmaceutical companies by encouraging patients to seek out expensive, potentially dangerous drugs that they know little about.

In fact, of the estimated 200 television drug spots aired since the 1997 FDA rule change, the agency has cited 32 for non-compliance and has asked the companies to change all or part of the ads.

In your testimony, you stated that, ". . . it has become increasingly clear that FDA's eye must be equally focused on the full life cycle of all the products that we (FDA) regulate—post market as well as pre-market activities and developments".

Therefore, what assurances can you give us that the FDA is monitoring direct to consumer advertising of prescription drugs?

Answer. Since issuing the 1997 draft guidance on broadcast, TV, radio, and telephone advertisements, the Division of Drug Marketing, Advertising and Communications, DDMAC, has had in place a process that alerts reviewers to submission of broadcast advertisements, and prioritizes and expedites their review. In addition, most product sponsors voluntarily submit their broadcast advertisements for review and comment prior to using them. Thus, there are relatively few product-claim TV and radio advertisements that DDMAC has not seen and commented on at some point in their production. We believe that the high degree of use of this voluntary, prior-review system, together with our prioritizing review of mandatory submissions, assures us of a highly effective level of monitoring of broadcast advertisements.

Question. Furthermore, is the FDA completing any analysis or study of the impact the 1997 rule change has had on prescription drug prices and spending?

Answer. In 1997 FDA published a draft guidance, not a rule change. In the final guidance we stated that we would assess the impact on the public health. Since FDA does not regulate pricing, our surveys will not measure this factor.

QUESTIONS SUBMITTED BY SENATOR ROBERT C. BYRD

Question. User Fees The President's budget includes an increase in current user fees to enhance the review process for new human drugs and biological products, and an increase in existing fees for applications, drug producers, establishments, and approved products.

What enhancements will be made to the review process, and what effect will these enhancements have on the length of time it takes for review and approval?

Answer. The agency is committed to performance goals for fiscal year 2002 that are detailed in an attachment to a November 12, 1997 letter from the Secretary of

Health and Human Services and referred to in the legislation that reauthorized PDUFA. Those goals include the review of 90 percent of priority applications within 6 months, 90 percent of standard applications within 10 months, and 90 percent of manufacturing supplements requiring prior approval in 4 months.

Question. What effect will increased user fees have on the cost of the approved products?

Answer. These increased fees are not expected to have any impact on the cost of approved products. The value of FDA review activities to industry far weighs the cost of the fees. According to the most recent data, for 1998, reported by the Pharmaceutical Research and Manufacturers Association, PhRMA, in its Pharmaceutical Industry 2000 Profile, 4.4 percent of total spending on U.S. industry R&D was allocated to "Regulatory: IND and NDA". This corresponds to a total of $757.79 million, out of a total of $17.22 billion in U.S. industry R & D spending that year. PDUFA fees paid by industry in 1998 totaled $117.12 million, about 15 percent of the amount industry attributes to "Regulatory: IND and NDA", and less than 1 percent, 0.006, of U.S. industry spending on drug R&D. Fee collections in fiscal year 2000 totaled $145.98 million, and this again represents less than 1 percent of the PhRMA estimated spending of $22.48 billion by U.S. industry in 2000. Despite the fact that user fees represent only a tiny fraction of R & D costs, the PDUFA program is a significant factor in increasing R & D cost-efficiency. Industry researchers have cited the FDA review processes and efficiency as the world benchmark. According to the Outlook 2001 report published by the Tufts Center for the Study of Drug Development, focused consultation with the FDA during the drug development process has been shown to help shorten clinical development times. The value to industry is reflected in the volume of company requests for meetings for consultation with FDA during drug development. Approximately 1,500 such meetings were requested and scheduled in fiscal year 1999 and more than 1,100 meetings were requested and scheduled in fiscal year 2000. The FDA reviewers' preparations and follow-up to these meetings are performed in addition to the work performed for review of submitted applications.

FOOD IRRADIATION

Question. The Food and Drug Administration has been identified as the government agency, in the United States, with the responsibility of reviewing a proposed revision to food irradiation standards put forth by the Codex Alimentarius Commission's Committee on Food Additives and Contaminants. Concern has been expressed to me that the proposed revisions may undermine food safety in the United States.

What efforts is the FDA undertaking to ensure that food safety standards in the United States will not be compromised because of international agreements?

Answer. FDA undertakes a variety of efforts to ensure that food safety standards in the United States will not be compromised because of international agreements. These efforts include the Agency's active participation in relevant international standard setting organizations such as the Codex Alimentarius Commission. FDA's decision to participate in these types of organizations is based on the assumption that there exists a unique opportunity for the United States to join the international community in formulating and harmonizing food standards and ensuring their global implementation. FDA's participation, in the Codex for example, also allows the Agency to play a role in the development of codes governing hygienic processing practices and recommendations relating to compliance with those standards.

FDA also believes that activities aimed at improving foreign food and cosmetic regulatory systems and product safety can also improve the agency's ability to fulfill its public health mission and statutory obligations here in the United States. FDA intends to play an active role in appropriate international forums and to strike a balance between its public health mandate and other international issues identified by FDA's stakeholders. FDA's participation in the international arena has had and continues to have a very positive impact on the ability of FDA to protect the health of American consumers. The Agency's regulatory and scientific expertise has been instrumental in enhancing the strength of international standards for foods and cosmetics and in improving the foreign regulatory systems that oversee the production and safety of products exported to the United States.

The FDA will continue to implement the food safety standard established by the Federal Food, Drug, and Cosmetic Act. A food that has been intentionally subjected to radiation is not allowed for sale in the United States unless the use of radiation was in conformance to an authorizing regulation issued by the FDA. The FDA only issues such regulations if evidence shows that the use of radiation is safe.

The Sanitary and Phytosanitary Agreement, SPS Agreement, of the GATT encourages WTO member states to base their sanitary and phytosanitary measures for

food safety on standards developed by the Codex Alimentarius Commission. This agreement, however, does not require countries to change their level of protection for human health. In sum, Codex Standards are non-binding international guidelines that WTO member states should consider when maintaining or establishing measures to protect public health.

The current Codex Standard for Irradiated Foods, adopted in 1983, recommends approval of foods irradiated to an average dose of 10 kGy. Current FDA regulations on irradiated food generally allow a dose less than that of the Codex Standard although FDA allows a higher dose for spices and for meats consumed in the NASA space flight program. The 32nd and 33rd sessions, 2000 and 2001, of the Codex Committee on Food Additives and Contaminants, CCFAC, discussed proposed draft revisions to the Codex General Standard for Irradiated Foods. The proposed revisions would remove the restriction on the maximum dose, based on a 1997 report of an expert panel convened by the World Health Organization. FDA scientists have participated in those discussions. The 33rd CCFAC agreed to forward amended revisions to the 24th session of the Codex Alimentarius Commission for preliminary adoption at Step 5 in the 8 step Codex standard elaboration process. The current draft revision of this standard is contained in the report of the 33rd Session of the CCFAC, ALINORM 01/12A, Appendix VII, which is available from the Codex Alimentarius Website, http://www.codexalimentarius.net/.

FDA supports the Codex goal of developing international standards and participates in discussions to ensure that standards are science-based. While considering Codex Standards, FDA will continue to implement the food safety standard established by the Federal Food, Drug, and Cosmetic Act.

FOOD SAFETY

Question. I am concerned that the FDA reports that microbial food-borne disease causes approximately 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths each year. Despite these figures, the number of inspections that the FDA performs has fallen steadily during the last 25 years. The President's budget request would only allow inspection at ninety-five percent of domestic firms.

What level of funding would allow the FDA to perform inspections at all domestic firms?

Answer. FDA is currently in the process of developing long range estimates for resource needs associated with the inspection of all domestic food establishments. The estimates will include a range of estimated resources needed to conduct the inspections, assumptions in determining the cost estimate, and caveats that indicate what types of uncertainties or changes would alter the estimates.

Question. How does the FDA justify a request that intentionally falls short of inspecting all domestic firms?

Answer. FDA believes that food safety funding needs to continue to be a multi-year effort. FDA's request recognizes that finite resources are available and focuses on highest risk. This budget is needed to maintain that focus. As resources permit, we can inspect medium/low risk establishments with greater frequency.

Inspections, while important, need to be viewed within a broader food safety program. We complement our inspection coverage with surveillance activities, research and risk assessment, and educational activities at all levels, consumers, industry, manufacturers, and processors, to provide a complete food safety program to ensure the U.S. food supply remains the safest in the world.

CONCLUSION OF HEARINGS

Senator COCHRAN. This concludes today's hearing. Additional hearings are scheduled by the subcommittee. Our next hearing will be on Thursday, May 17, at 10 o'clock in the morning, here in room 138 of the Dirksen Senate Office Building. At that time, we will hear from Federal, industry, and local witnesses on the subject of market concentration in agriculture. Until then, the subcommittee stands in recess.

[Whereupon, at 11:07 a.m., Thursday, May 10, the hearings were concluded, and the subcommittee was recessed, to reconvene to the call of the Chair.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE.—The following agencies of the Department of Agriculture did not appear before the subcommittee this year. Chairman Cochran requested these agencies to submit testimony in support of their fiscal year 2002 budget request. Those statements follow:]

DEPARTMENT OF AGRICULTURE

RURAL UTILITIES SERVICE

PREPARED STATEMENTS OF BLAINE D. STOCKTON, ACTING ADMINISTRATOR

Mr. Chairman, Members of the Committee, it is a pleasure to present to you the President's fiscal year 2002 Budget request for the Rural Development Mission Area of USDA.

The Rural Development Mission area was established in 1994 by the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act. The mission area consists of three agencies, the Rural Business-Cooperative Service (RBS), the Rural Housing Service (RHS), and the Rural Utilities Service (RUS). These agencies are responsible for delivering programs authorized by the Consolidated Farm and Rural Development Act, the Farm Security Act of 1985, the Rural Electrification Administration Act of 1936, the Cooperative Marketing Act of 1926, the Agricultural Marketing Act of 1946, the Housing Act of 1949, and the Rural Economic Development Act of 1990, as amended. The mission area also administers the rural portion of the Empowerment Zones and Enterprise Communities (EZ/EC) Initiative and the National Rural Development Partnership, a nationwide network of rural development leaders and officials. This listing of responsibilities is suggestive of the remarkably wide variety of responsibilities in Rural Development's purview, to improve the quality of life for rural Americans.

Rural Development assists rural individuals, communities, and businesses obtain the financial and technical assistance needed to address their diverse and unique needs. This financial and technical assistance may come solely from Rural Development or be combined with assistance from one of the numerous public and private organizations involved in the development of rural communities. Rural Development agencies deliver over 40 different loan, loan guarantee, and grant programs in the areas of business development, cooperative development housing, community facilities, water supply, waste disposal, electric power, and telecommunications, including distance learning and telemedicine. Rural Development staff also provide technical assistance to rural families and community leaders to ensure success of those projects it has financed. In addition to their loan-making responsibilities, Rural Development staff are also responsible for the servicing and collection of a loan portfolio that exceeds $80 billion.

Rural Development's impressive aggregate statistics display one dimension of the successes of the program funding the Committee has provided. However, statistics do not reveal the human side of these successes. Later, in testimony from the agencies, you will hear clearly how the program funding the Committee provides dramatically improves the lives of rural Americans. These success stories are remarkable.

RURAL DEVELOPMENT BUDGET REQUEST

Mr. Chairman, the President's commitment to improving rural America is reflected in the budget request for fiscal year 2002. The Rural Development budget request for program level is $12.4 billion, supported by budget authority of $2.4 billion. This reflects the commitment to maintain program performance at current levels. Special one- time supplemental funding provided last year is not requested, nor is continuation of several small pilot projects, since they generally can be funded under existing authorities. I will now discuss the requests for specific programs.

RURAL HOUSING SERVICE

The budget request for the programs administered by the Rural Housing Service (RHS) totals $5.8 billion. This commitment will improve housing conditions in rural areas, and in particular improve homeownership opportunities. The request for single family direct and guaranteed homeownership loans totals $4.2 billion, which will assist 55,800 households who are unable to obtain credit elsewhere to purchase a home of their own. This level of construction activity will stimulate almost 36,000 jobs in rural areas. The RHS request includes $32 million for housing repair loans and almost $30 million for housing repair grants, which will be used to improve 12,000 existing single family houses, mostly occupied by low income elderly residents.

We are proposing a multi-family housing request of $114 million for direct loans, almost $100 million for guaranteed loans, $43 million for farm labor housing loans and grants, and about $694 million in rental assistance. These program levels support construction of new units and rehabilitation of existing units, many of which are occupied by female heads of households, generally elderly females or single mothers, with annual incomes averaging under $8,000. In addition, the budget includes $694 million for rural Rental Assistance payments. These payments are used to reduce the rent in rural rental housing projects, to no more than 30 percent of the income of very low-income families. This level of funding will provide rental assistance to approximately 43,000 households, most of which would be used for renewing expired contracts in existing projects.

The request for community facilities funding totals almost $250 million for direct loans, $210 million for guaranteed loans, almost $13 million for grants, and just under $6 million to continue the Rural Community Development Initiative (RCDI). Community facilities programs finance rural health facilities, child care facilities, fire and safety facilities, jails, education facilities, and almost any other type of essential community facility needed in rural America. These funds will support 4,000 beds in new or improved elder care facilities, 180 new or improved health care facilities, 170 new or improved fire and rescue facilities, 90 new or improved child care centers, and 70 new or improved schools.

RURAL BUSINESS-COOPERATIVE SERVICES

One key to creating economic opportunity in rural areas is the development of new business and employment opportunities. But, local lending institutions frequently do not have the capacity or capital needed to sustain local businesses and generate new growth in rural areas. Rural Business-Cooperative Services (RBS) programs, particularly the Business and Industry (B&I) loan guarantee program, were enacted to supplement the efforts of local lending institutions in providing the capital.

Based on recent experiences, we expect that every dollar of Rural Business Enterprise Grant funding will be leveraged with $2.40 of funding from other sources, while each dollar of Intermediary Relending Program funds will be leveraged with $3.76 from other sources.

The RBS budget request for fiscal year 2002 totals just over $1.1 billion, the bulk of which represents $1 billion for the B&I loan guarantee program. This level of funding for the B&I program alone will create or save over 28,000 jobs in rural America. Almost $41 million is requested for the Rural Business Enterprise Grant program, $3 million for the Rural Business Opportunity Grant program, $38 million for the Intermediary Relending Program, almost $15 million for Rural Economic Development loans, over $6 million for Rural Cooperative Development Grants, and

just under $15 million for Empowerment Zone and Enterprise Community Grants, for communities designated in the second round of this program. In total, this program level should create or save over 71,000 rural jobs.

RURAL UTILITIES SERVICE

The Rural Utilities Service (RUS) provides financing for electric, telecommunications, and water and waste disposal services that are essential for economic development in rural areas. The level requested for programs administered by the RUS is $4.9 billion, which is comprised of $2.6 billion for electric loan programs, $495 million for rural telecommunication loans, $300 million for Distance Learning and Telemedicine loans, $27 million for Distance Learning and Telemedicine grants, $884 million for direct and guaranteed Water and Waste Disposal loans, and $529 million for Water and Waste Disposal Grants, and $4 million for Solid Waste Management Grants.

Contingent upon the enactment of authorizing legislation, approximately $2 million may be available for a loan and grant program to finance broadband transmission and local dial-up Internet service in rural areas. This will improve access to high speed, high capacity data transmission to under-served rural areas. It is estimated that about 10 percent of rural areas lack local Internet service.

The Electric program funding will benefit about 2.8 million consumers from systems improvement, through upgrading almost 190 rural electric systems. Approximately 60,000 jobs will be created as a result of facilities constructed with Electric program funds. Almost 50,000 new subscribers will receive telecommunications service, over 200,000 existing subscribers will receive improved service, and about 16,000 jobs will be generated as a result of facilities constructed with Telecommunications funds. Under the Distance Learning and Telemedicine programs, approximately 300 schools will receive distance learning facilities and 150 health care providers will receive telemedicine facilities. Over 42,000 jobs will be generated as a result of facilities constructed with water and waste disposal program funds, as 600 rural water systems and about 330 rural waste systems are developed or expanded in compliance with the Safe Drinking Water Act and Federal and State environmental standards.

The Rural Telephone Bank (RTB) was established in 1972 to provide a supplemental source of credit to help establish rural telephone companies. This has proved to be remarkably successful, and efforts have been underway to privatize the bank. In 1996, the RTB began repurchasing Class "A" stock from the Federal government, thereby beginning the process of transformation from a Federally-funded organization to a fully privatized banking institution. The fiscal year 2002 budget reflects the Administration's commitment to a fully privatized RTB that does not require Federal funds to finance the loans it makes. The 2002 Budget does however, include administrative funds for developing a detailed plan for privatization for legal support and to administer the existing loan portfolio.

ADMINISTRATIVE EXPENSES

These requested program levels provide ambitious targets for accomplishments, for which the Committee will be proud. However, delivering these programs to the remote, isolated, and low income areas of rural America requires administrative expenses sufficient to the task. Over the last several years, Rural Development has administered growing program levels, and new programs, with a stable level of Salary and Expense (S&E) funding. From fiscal year 1996 through fiscal year 2000 Rural Development's annual program levels increased by 43 percent. Over that same period Rural Development's S&E appropriation increased 1.4 percent. Although no Reductions in Force were implemented, Rural Development curtailed employment, and Full Time Equivalent (FTE) staffing fell 15 percent. But, in spite of lower employment, salary and benefits requirements took a larger and larger share of the total S&E available. In 1996, salary and benefits for employees took 70 percent of the total S&E. By 2000, with 1,168 fewer FTEs used, salary and benefits took 78 percent of S&E. With S&E rising only 1.4 percent, less was available for everything else, including travel, training, supplies, etc., to support loan underwriting; and servicing and automated systems development.

For all these reasons, we urge the committee to fund the President's fiscal year 2002 requested for S&E of $596 million. Rural Development is very appreciative of the funding provided in the fiscal year 2001 appropriation for automated financial systems development, and funding the President's requests will allow Rural Development to continue to support the development of systems for guaranteed loans, multi-family housing loans, Rural Utilities Service systems modernization, and the Program Funds Control System. This funding will allow Rural Development to con-

tinue to address long delayed automated systems development needs, but these are major projects and will not be completed in one year. Rural Development's loan portfolio exceeds $80 billion and funding is a joint venture requiring both adequate program and administrative funding. One cannot be achieved without the other.

Mr. Chairman, Members of the Committee, this concludes my formal statement. The Acting Administrators and I would be glad to answer any questions you may have. Thank you for the opportunity to appear before you to discuss the Rural Development budget request.

Mr. Chairman, Members of the Subcommittee, thank you for the opportunity to present the President's fiscal year 2002 budget for the Rural Utilities Service (RUS). We appreciate the work and support you and the other members of this subcommittee have provided for a strong, dependable infrastructure in the rural United States.

All aspects of a rural society work together to make a strong nation. Safe, affordable, modern utility infrastructure is an investment in economic competitiveness and serves as a fundamental building block of economic development. Technology, regulatory, and market structure changes, combined with an aging utility infrastructure are occurring in the electric, telecommunications, and water sectors. Without the help of USDA through the RUS programs, the citizens of rural communities will have a more difficult time-sharing in the basic quality of life.

The nearly $42 billion RUS loan portfolio includes investments in approximately 2,000 electric and telecommunications systems and 7,500 small community and rural water and waste disposal systems serving rural America. This local/Federal partnership is an ongoing success story. Eighty percent of the Nation's landmass continues to be rural, encompassing 25 percent of the population. In a fragile economy, this infrastructure investment spurs economic growth, creates jobs and improves the quality of life in Rural America.

RESPONSIVE AND RESPONSIBLE

The proposed budget will enable RUS to continue to respond to the demand in rural America to meet the needs brought on by the rapidly changing markets and technologies. The ability of borrowers to respond quickly to changing conditions is a key to the public-private partnership between RUS and its borrowers. RUS continues to streamline policies and offer borrowers more flexibility in financing, while ensuring safe, reliable modern utility service to rural Americans.

ELECTRIC PROGRAM

The RUS Electric Program budget proposes $3.7 million in budget authority to support a program level of $2.62 billion. The President's Budget requests $3.6 million in budget authority for a hardship program level of $121.1 million. The budget proposal provides a $294 million funding level for the municipal rate loans, a $500 million funding level for Treasury rate loans, and $1.6 billion funding level for guaranteed loans through the Federal Financing Bank, which do not require any subsidy budget authority. In addition, the budget proposal provides $80,000 in budget authority for a $100 million loan guarantee program for private sector loan guarantees. To more effectively manage both the telecommunications and electric programs and to respond to borrower needs, we are requesting the budget authority be provided in a single, unrestricted amount for electric and telecommunications programs.

RUS is also working with power supply borrowers to secure badly needed peak power and transmission needs. As you each are aware, our demand for generation and transmission has outgrown capacity.

A good example of how RUS electric programs can affect the quality of rural communities is in Douglassville, Texas. Bowie-Cass Electric Cooperative of Douglassville developed a construction work plan totaling $17,872,000 to construct new facilities, extend service to approximately 3,800 new customers and improve existing facilities. Of this, RUS electric program loan funds will provide financing in the amount of $6,300,000, which will leverage $2,700,000 of supplemental financing, $72,000 in aid to construction contribution and $8,800,000 of the Cooperative's generated funds. A portion of these funds will be used to extend service to a new Skills Center in the State that will employ 10–15 people. This center will work with local colleges to produce the highly skilled technicians the employers of the area require. Without this type of training, employers in this rural area would be faced with employee shortages and might be forced to relocate.

FACILITATING ADVANCED TELECOMMNICATIONS IN RURAL AMERICA

The uniform deployment of advanced telecommunication technologies in urban and rural areas alike has been recognized as a must if the nation is to achieve the greatest return on its infrastructure investment. In 1993, Congress passed the Rural Electrification Loan Restructuring Act (RELRA), which mandated that all future RUS financed telecommunications infrastructure be capable of supporting data transmission at a minimum rate of one megabit-per-second—or at broadband service levels. As a result, RUS financing provided since the passage of that important act has resulted in increased investment in advanced technologies for rural areas served by RUS borrowers. Since receiving this mandate:

—The deployment by RUS borrowers of fiber optic cable has doubled, representing one in every ten miles of cable in rural local loops financed by RUS.

—RUS has financed $1.5 billion in fiber optic facilities and $1.1 billion in digital switching systems and enhanced feature software.

—And today, RUS financed borrowers provide 99 percent digital switching.

RUS will continue to finance only telecommunications plants that can be characterized as "no roadblocks to broadband" and, as such, is compatible with the Telecommunications Act of 1996, especially the universal service principles of Section 254 and the encouragement for broadband of Section 706. While significant progress is being made in the deployment of advanced telecommunications technologies in rural areas, RUS will continue to focus on the challenges remaining in providing rural access to the digital economy and its benefits:

—serving the unserved and underserved;

—keeping pace with new industry changes in a competitive market; and

—addressing special needs of economically distressed regions and those areas with limited resources, such as our Native American communities.

WATER AND ENVIRONMENTAL PROGRAMS

This budget seeks $530 million in budget authority for Water and Waste Disposal (WWD) grants; $3.5 million in budget authority for solid waste management grants; and $56 million in budget authority to support over $809 million in WWD direct loans and $75 million in guaranteed loans.

The budget request earmarks $20 million for Colonias along the U.S.-Mexico border, $16.2 million for technical assistance and training grants, $9.5 million for the circuit rider technical assistance program, $20 million for rural Alaskan villages, and $27 million in budget authority for loans and grants in Federally designated Empowerment Zones and Enterprise Communities. Our budget request will also allow third-party service providers such as rural water circuit riders to make over 56,000 water and wastewater system contacts to communities needing technical assistance and, through a clearinghouse effort, take more than 20,000 telephone calls and an estimated 11,000 electronic bulletin board and web site contacts.

As a result of WWD strong technical assistance efforts, both from staff and third-party service providers/contractors, loan delinquency and loan losses will remain low. Currently, only 1 percent of approximately 7,600 borrowers are delinquent. Since the inception of the water and waste disposal program, less than 0.1 percent of the amount loaned has been written off.

WWD programs improve the quality of life and health of an estimated 1.4 million Americans in needy communities each year by providing access to clean, safe drinking water. In addition, new or improved waste disposal facilities are provided to an estimated 500,000 people living in rural areas. A field network of Rural Development employees deliver the program through "hands-on" technical and financial assistance under the Rural Community Advancement Program.

A project funded in Columbus, New Mexico illustrates the kind of impact the program can have. Columbus is a small-incorporated community on the border with Mexico in Southern Luna County, which had no existing wastewater treatment infrastructure. The low-income (MHI = $10,781) predominately Hispanic population was served by septic tanks, cesspools, and in some cases privies. Ground water contamination was a major concern. The Village owns a small industrial park, which is largely empty, but does house US Customs and a 24-unit Multi- Family Housing project funded by RHS/USDA. It was served by a small-dilapidated lagoon sewer plant. EPA found it in non-compliance and was threatening large daily fines. RUS provided two Section 306C Colonias grants totaling $1,936,600 which were combined with a $300,000 Community Development Block Grant to build a gravity flow sewer collection system along with a lagoon wastewater treatment facility serving the Village. A small part of the project upgraded and expanded the plant at the industrial park, providing safe wastewater treatment to the RHS apartment complex along with others. Part of the new system plant included constructive wetlands, which

provide a safe haven for waterfowl and migrating birds. As an unforeseen benefit, a small rowboat provided through the project ended up being used during severe flooding conditions to rescue families from their flooded properties, one of which had 12 family members stranded on the roof of their mobile home. Columbus has recently received additional CDBG funds and is now expanding the collection system to serve the fringe areas of the community.

The Water and Waste Disposal program has been very successful since its inception over 60 years ago. A total of over $25 billion in financial assistance has been provided, about 70 percent of that in the form of loans; approximately 45 percent of the total has been provided during the past 10 years. Indications suggest, however, that needs for water and waste disposal systems are still significant and are likely to grow as a result of expanding population in rural areas, changes to water quality standards, drought conditions, and similar factors. The application backlog for assistance continues to total about $3 billion each year. Over the last three years RUS has assisted 1,124 borrowers in moving up to commercial credit in accordance with its graduation requirement. The loans paid off as a result of this effort totaled nearly $680 million.

OUTREACH TO THE NEEDEST PEOPLE

RUS strives to increase its program outreach, participation, and delivery to the most needy rural people. This goal addresses the heart of our mission. We combine our technical and financial resources to reach out and assist those communities, tribes and other groups with limited resources. The RUS outreach efforts have touched the vast expanse of our country-from rural Alaskan Villages to Colonias along the U.S.-Mexico border communities in the Mississippi Delta and the great needs of Native Americans.

Since the earliest days of rural electrification, this agency has focused special attention on tribal communities. One of our earliest electric borrowers was the Navajo Nation. In telecommunications, five out of the seven tribally owned telephone companies are RUS borrowers. The significant RUS investments in utilities in Alaska provide service to some of the most remote native Alaskan villages.

RUS investments in drinking water and wastewater projects serving tribal and rural Alaskan communities have increased by nearly 400 percent since fiscal year 1993, and continue to grow. RUS is uniquely dedicated to helping unserved and under-served communities. Nearly sixteen million dollars were earmarked in fiscal year 2001 to benefit Native Americans. For fiscal year 2002, the President's proposed budget earmarks $24 million for Native Americans, of which $15.75 million is proposed to be used for water and waste disposal loans and grants. Additionally, we are intensifying coordination of funds with the Indian Health Service and State and other Federal agencies.

TELECOMMUNICATIONS BUDGET

This year's budget proposes $300 million in Treasury rate loans and $120 million in loan guarantee authority. This $420 million in loans can be provided for a minimal subsidy cost of $300,000. In addition, the budget proposes $1.7 million in budget authority to support $75 million in hardship loans to the poorest, neediest, and highest cost to serve areas.

The budget also reflects the Administration's commitment to privatize the Rural Telephone Bank and therefore, does not request any budget authority to support lending for fiscal year 2002. This will result in a $3.8 million savings in budget authority. Today, the bank operates as a supplemental lender to entities eligible to borrow funds from the RUS program. A privatized bank would be able to expand or tailor its lending practices to go beyond the current limitations imposed as a government lender, as well as use its substantial loan portfolio and cash reserves to extend favorable credit and terms to smaller, rural companies. Privatization, therefore, should be pursued in a manner consistent with the bank's enabling legislation so that it continues as a private lender that helps meet the growing capital demands of the rural telecommunications industry.

DISTANCE LEARNING AND TELEMEDICINE

Distance learning and telemedicine technologies are having a profound impact on the lives of rural residents. The Distance Learning and Telemedicine (DLT) program administered by RUS is helping to facilitate the deployment of advanced technologies to our rural schools and health care centers. By assisting rural schools and learning centers in gaining access to improved educational resources over advanced broadband networks rural students and teachers have access to educational opportunities not available before. And by assisting rural hospitals and health care cen-

ters in gaining access to improved medical care by linking to urban medical centers for clinical interactive video consultation, distance training of rural health care providers, management and transport of patient information, and access to medical expertise and library resources health care in rural areas takes on a whole new dimension. Building on advanced telecommunications infrastructure, distance learning and telemedicine initiatives are not only improving the quality of life in rural areas, but are making direct contributions to promoting electronic commerce in rural areas. Telemedicine projects are providing new and improved health care services and benefits to rural residents, many in medically under-served areas. Distance learning projects provide funding for computers and Internet hookups in schools and libraries and promote confidence in, and understanding of, the world-wide-web and its benefits to students and young entrepreneurs. Since this program's inception in 1990, nearly $94 million in grants and over $12 million in loans have been made in 383 projects across the US, from rural Upstate New York to the Mississippi Delta, and from the Great Plains to the isolated valleys of California. Projects have been funded in 44 states and three territories, including 49 projects totaling nearly $14.5 million that benefit Native Americans and their tribal communities.

Maverick County is one of the poorest counties in Texas and the nation. The hospital district does not have enough beds for the demands of the community and there is a severe shortage of nurses to staff more patient beds. Ninety percent of the clinic patients have household incomes below poverty level. Grant funds—in the amount of $326 thousand—provided by RUS have provided telemedicine and distance learning capabilities between Fort Duncan Medical Center and the new Rosita Valley Clinic serving the colonias in Maverick County and the Traditional Kickapoo Tribe of Texas. As a result, the project expects to complete 1,200 interactive telemedicine consults annually and to increase the number of patients receiving specialized medical care by 25 percent. A second grant has also been awarded in the amount of $348 thousand to expand the project. This second phase will provide additional personnel and equipment to include the communities of Eagle Pass, Quamado, Seco Mines, El Indio, and the Kickapoo Indian Reservation. Over 36,000 residents will benefit!

For the DLT program, the budget proposes $300 million in Treasury rate loans, at a zero subsidy cost, and $24.945 million in grants.

GRANTS AND LOANS TO PROVIDE RURAL TOWNS WITH BROADBAND SERVICES

Through a one-year pilot program, Congress made $2 million in grants and $100 million in treasury rate loan funds available to encourage telecommunications carriers to provide broadband service, and local dial-up Internet Service to rural consumers where such service does not currently exist. This program will provide grants and loan funds, on an expedited basis, to communities of up to 20,000 inhabitants. Loans are made at the Treasury rate of interest for a period equivalent to the life of the financed assets, not to exceed 10 years.

Due to the need for this program, the budget includes $2 million in grants and $100 million in lending authority, at zero subsidy costs, to implement permanent authority. Broadband networks in small, rural towns will facilitate economic growth and provide the backbone for the delivery of increased educational opportunities over state-of-the-art telecommunications networks.

In the rural Mississippi counties of Okibbeha and Winston, there were no prospects for the delivery of broadband communications services until an RUS loan—in the amount of $3.3 million from the Broadband pilot program—was approved for Wireless Land Technologies, Inc. Funds are being used to provide broadband data services over a wireless network connection to the local communities, benefiting over 3,000 subscribers in the first two years. In addition, the technology provides the platform for the delivery of telemedicine services. Four medical centers in the service area will operate on a Virtual Private Network and connect to other health care and medical institutions. Through this network, these medical centers will share resources and medical expertise in administering patient care. As an added benefit, local businesses requiring secure data connections may also use this type of network.

AGRICULTURAL RESEARCH SERVICE

PREPARED STATEMENT OF DR. FLOYD P. HORN, ADMINISTRATOR

Mr. Chairman, and members of the Subcommittee, I appreciate the opportunity to represent the Agricultural Research Service (ARS) and to present our budget for fiscal year 2002. As you know, Mr. Chairman, as the principle intramural scientific

research agency of the U.S. Department of Agriculture, our mission is to develop new knowledge and technology, and disseminate information essential to solving agricultural problems that are broad in scope and have a high national priority. ARS is a problem-solving agency, dedicated to sustaining a viable food and agricultural economy; preserving our environment; enhancing human health and nutrition; and ensuring affordable, abundant, high quality food and fiber for the American consumer. ARS helps ensure that our farmers and ranchers and the agricultural industry overall, remain competitive in both domestic and world markets. In addition, ARS conducts research to support Federal action and regulatory agencies and provides scientific expertise and resources to the Executive Branch and Congress. The fiscal year 2002 budget is responsive to this mission.

FISCAL YEAR 2002 BUDGET RECOMMENDATIONS

Let me now turn to our budget recommendations for fiscal year 2002. The President's budget for ARS research is $915,591,000, an increase of $18,756,000 over fiscal year 2001. The Budget also proposes a fiscal year 2002 funding level for the ARS Buildings and Facilities account of $30,462,000.

Mr. Chairman, as in previous years, this budget proposes the termination of prior year earmarked research projects which will enable the redirection of resources to higher priority research initiatives. The Administration believes that taxpayers' dollars must be spent on the highest priority needs of national significance. The savings achieved through the proposed terminations, $34,282,000, will be applied to the agricultural research initiatives recommended by the President. The initiatives proposed in this budget include:

—Emerging and Exotic Diseases and Pests of Plants and Animals
—Agricultural Genomes/Bioinformatic Tools
—Invasive Species (Weeds/Pests)
—Biotechnology Risk Assessment
—Biobased Products and Bioenergy

Emerging and Exotic Diseases and Pests of Animals ($5,000,000)

Emerging diseases are caused by previously unidentified pathogens or new manifestations of "old" diseases that appear in animal populations. Reemergence of known diseases often occur after long quiescent periods or upon introduction of a new pathogen into a native animal population in a new geographical area. Microbial pathogens are continually adapting to new ecological niches. Exotic pathogens and pests, once introduced into a new geographic area, can explode into an epidemic due to the absence of effective control measures such as vaccines, drugs, lack of resistance in host animals, and limited resources to effectively manage the spread of these pathogens.

The globalization of trade, increased international travel of people and movement of goods, and changing weather patterns provide new opportunities for the emergence and spread of infectious diseases such as bovine spongiform encephalopathy (BSE), also referred to as "mad cow disease" in Europe. BSE outbreaks in the United Kingdom and Europe have required the destruction of huge numbers of animals to control the disease outbreaks, and have caused billions of dollars of economic loss due to domestic and international trade embargoes. The human form of mad-cow disease, Creutzfeldt-Jakob disease, has claimed a number of lives. Research to improve methods of rapid and accurate detection, and new means to control emerging and or exotic pathogen threats are urgently needed to prevent economic losses and maintain animal well-being.

Specific program thrusts to be undertaken with the proposed funds include investigations to determine the nature and transmission of the BSE agent; the detection and diagnosis of BSE in live animals; and methods to develop environmentally friendly and inexpensive but safe disposal of carcasses and feedstuffs.

Emerging and Exotic Diseases and Pests of Plants ($1,782,000)

Emerging and exotic plant diseases are increasingly becoming a serious problem in the United States. Their emergence or re-emergence is attributed to the introduction of pathogens into new geographic regions, modifications of environments that favor disease, changes in crop management practices, and genetic shifts in pathogen populations.

Effective plant disease control depends on accurate and timely detection and identification of new pathogens. Preventing the introduction of exotic pathogens and controlling existing ones will not only safeguard the nation's crops but preserve the U.S.' export markets.

ARS will use the proposed increase to develop more sensitive and accurate biological methods to rapidly identify and control plant pathogens, such as plum pox,

Pierce's disease, and karnal bunt. The Agency will also conduct research to improve plants' genetic resistance by incorporating that resistance into the plant through conventional breeding and genetic engineering.

Biotechnology Risk Assessment ($3,000,000)

Last year, the National Academy of Sciences issued a report which raised some concerns regarding pest resistant crops, particularly genetically-engineered ones. What are the long-term ecological impacts of genetically-engineered crops? What are the effects of pest protected transgenic crops on nontarget species? How can the buildup of resistant pest populations be prevented?

With the proposed increase, ARS scientists will identify the potential risks of biotech crops. The research will reduce the risks associated with gene transfer from biotech crops to other species and the buildup of resistant pest populations. In addition, allergenic proteins in vegetables will be reduced, and the nutritional qualities of biotech food products will be improved.

Bioinformatic Tools to Support Agricultural Genomics ($4,500,000)

U.S. agriculture faces formidable challenges, from emerging and exotic diseases and pests, water and soil pollution and degradation, new environmental regulations, climatic extremes, to the extinction or inaccessibility of genetic resources. These challenges must be met by harnessing the inherent potential of genetic resources.

More rapid and efficient methods are needed to manipulate the useful properties of genes and genomes. Current methods rely on ever more accurate and comprehensive knowledge of genomic organization to efficiently characterize genes and elucidate their function. Genomics and biotechnology are vital for increasing the quality and safety of food products, developing improved crops and production efficiency, improving the accuracy of genetic selection, and identifying the genes responsible for disease and parasite resistance in animals and plants.

With the proposed increase, the agency will develop bioinformatic tools and provide database support for all of ARS' animal, and plant, and microbial research programs. The bioinformatic tools will be used to analyze information from different databases and compare information within and across species. The large quantity of data that will be stored in databases will represent a quantum leap in developing technologies and information needed to address present and future agricultural problems.

Invasive Species ($5,000,000)

Invasive weeds and pests cost the United States a staggering $122 billion per year. Weeds reduce crop yields by about 12 percent and forage yields by 20 percent. Nearly half of the threatened and endangered plant species in the U.S. are at risk because of invasive weeds. Arthropod (insects and mites) pests destroy 13 percent of crop production.

ARS will use the proposed increase to develop classical and augmentative biological control approaches, and areawide integrated pest management pilot tests for controlling invasive weeds and arthropod pests. In addition, the agency will conduct explorations in Europe, Africa, South America, Asia, and Australia to find natural enemies of particularly troublesome arthropod pests (e.g., Asian longhorned beetle, glassy-winged sharpshooter, pink hibiscus, mealybug, and imported fire ant) and weeds (e.g., leafy spurge, saltcedar, water hyacinth, kudzu, and melaleuca).

Also with the proposed increase, an Internet-based information management system will be established with connections to the eight Federal agencies responsible for controlling invasive species. This system will facilitate program coordination and implementation of the National Invasive Species Management Plan which was recently adopted by the eight agencies through the National Invasive Species Council. The National Agricultural Library houses the national website and will assist with managing this information flow between cooperators.

Biobased Products and Bioenergy ($15,000,000)

Development of biobased industries that use trees, crops, agriculture, and aquatic resources to make commercial products including fuels, electricity, chemicals, adhesives, lubricants, composites, and building materials is a priority for the 21st century.

By expanding the development of biobased products and bioenergy, the demand for agricultural commodities will be increased which in turn will strengthen farm product prices and raise farm income. The products will generate new opportunities for business development and employment in rural America. Air pollution and greenhouse gas emissions will decrease. And U.S. dependence on imported oil will be reduced.

ARS will use the proposed increase to improve the conversion of agricultural materials and wastes to biofuels. Converting agricultural materials and wastes to biofuels and coproducts will be improved by developing processing technologies needed to create 21st century bio-refineries. Improvements in fundamental biochemical knowledge and technology breakthroughs will broaden the range of useful agricultural feedstocks from which bio-refineries can produce inexpensive biofuels and viable biobased products.

Researchers will also develop new technologies to produce biobased products from agricultural commodities and byproducts. Through fundamental breakthroughs in biocatalysis, fermentation, biotechnology, and separation processes, new biobased products will be developed having novel functional properties for applications previously unattainable or met only by petroleum-derived or other nonbiobased products. New biobased products include biodegradable polymers, absorbents, coatings, lubricants, and imported gum substitutes.

Proposed fiscal year 2002 Pay Costs

The President is proposing an increase of $18,756,000 for the anticipated fiscal year 2002 pay raise. These funds are critical for the agency to conduct an effective and responsive research program. Absorption of these costs would lead to reductions in the number of scientists and support personnel, and in equipment and supplies essential to carrying out the country's agricultural research priorities.

Proposed fiscal year 2002 Program Decreases

The President is proposing the elimination of a number of research projects totaling $34,282,000 which were added to the fiscal year 2001 appropriation bill. Taxpayer dollars should be used for the highest priority programs that meet critical national needs. The programs being proposed for elimination, while useful, do not meet these criteria. The savings achieved from the eliminated projects will be redirected to finance the high priority research initiatives recommended in the President's budget.

PROPOSED FISCAL YEAR 2002 BUILDINGS AND FACILITIES INCREASES

In order to attract and retain top scientists, solve the Nation's most critical agricultural problems, and address the research needs and priorities of the 21st century, ARS must have modern, state-of-the-art laboratories and facilities. Outdated, deteriorating laboratories adversely impact the quality of the research conducted. Many of the agency's laboratories were constructed half a century ago. Some are much older. They are in immediate need of major repair, renovation, or modernization. As part of its modernization program, ARS is requesting a total of $30,462,000. These funds will be used for the following facilities:

Plum Island Animal Disease Center, Greenport, New York ($3,762,000)

Plum Island is the only site in the United States where research can be carried out on highly contagious animal diseases, such as foot and mouth disease. The center is also used by APHIS, which performs diagnostic work on foreign animal diseases that are an ongoing threat to U.S. livestock. In 1989, ARS and APHIS began to develop a long range plan for the modernization of their facilities at Plum Island. As part of the ongoing modernization program, ARS is requesting $3,762,000 for construction of coastal erosion control measures, improvements to the potable water distribution system, and clean-up of a construction debris site.

Regional Research Centers ($15,300,000)

ARS' regional research centers were built in the 1930s. Investment in these centers is essential for ARS' scientists to conduct research which leads to a safer food supply, and new agricultural products and new uses for agricultural commodities.

—*Western Regional Research Center (WRRC), Albany, California ($3,800,000).*—In fiscal year 2002, ARS is requesting $3.8 million for Phase 2 construction of the Research and Development Facility. Phase 2 will consist of renovation of interior space, and plumbing systems.

—*National Center for Agricultural Utilization Research (NCAUR), Peoria, Illinois ($6,500,000).*—In fiscal year 2002, $6.5 million for Phase 1 construction is requested. Work will include an upgrade of HVAC and electrical systems, installation of a sprinkler system, and a stairway. Initially, bays on the west end of the Central Wing will be renovated and designed for expansion and tie-in with subsequent bays to minimize disruption of research during construction.

—*Eastern Regional Research Center (ERRC), Wyndmoor, Pennsylvania ($5,000,000).*—In fiscal year 2002, ARS is requesting $5 million for construction of Phase 7 (Chemical Wing) and design of Phases 8 and 9 (Power Plant and

Engineering Research Laboratory). Construction of Phase 7 will include renovation of interior space, and replacement of mechanical, electrical and plumbing systems.

Abraham Lincoln National Agricultural Library ($1,800,000)

The National Agricultural Library is one of four national libraries in the United States and the largest agricultural library in the world. In 1991, the Library completed a comprehensive facility condition study which identified a number of building deficiencies. To continue the repair and modernization of the Library, ARS is requesting $1,800,000 to upgrade major electrical distribution deficiencies.

U.S. National Arboretum ($4,600,000)

The Arboretum was established by an Act of Congress in 1927 as a center for research and education in the plant sciences. Since 1958, the Arboretum has been open to the public. Many of the Arboretum's building systems have reached or passed their useful life expectancy. As part of the modernization of the Arboretum, ARS is requesting $4,600,000 for continuation of the greenhouse complex renovation, design of a new main entrance, and design of the administration building modernization.

Western Human Nutrition Research Center, Davis, California ($5,000,000)

In 1996, ARS decided to move its Western Human Nutrition Research Center to the campus of the University of California at Davis. The purpose of the move was to link ARS' nutrition research with the University's Departments of Nutrition and Food Science and Technology, its College of Agricultural and Environmental Sciences, and its Schools of Medicine and Veterinary Medicine. To date, the Congress has appropriated $20,350,000 for the new center. Since the original cost estimates were developed, construction costs have escalated beyond the anticipated rate of inflation. ARS is requesting an additional $5,000,000 to complete the center as originally planned.

SUMMARY

I believe the fiscal year 2002 budget the President is recommending will address many of this Nation's most critical agricultural research priorities. There is no question as to the growing importance of ARS' research programs—in the face of increased concerns over the safety of our food supply; and the emergence or re-emergence of mad-cow disease, foot-and-mouth disease, and other highly infectious animal and plant diseases. And other concerns, such as how to increase production without harming the environment, or how to revitalize rural America—agricultural research is at the threshold of providing solutions. I believe, as I'm sure this Committee believes, that agricultural research is vitally important to our Nation's well-being today more than ever before.

RURAL BUSINESS-COOPERATIVE SERVICE

PREPARED STATEMENT OF WILLIAM F. HAGY III, ACTING ADMINISTRATOR

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you today to present the Administration's fiscal year 2002 Budget for the Rural Business-Cooperative Service (RBS).

Mr. Chairman, the programs and services of RBS, in partnership with other public and private sectors, continue to improve the economic climate of rural areas through the creation or preservation of sustainable business opportunities and jobs in rural America. RBS continues to target its resources to farmers and to the under-served rural areas and populations. RBS programs fall into two broad categories; loan and grant programs to assist rural businesses, and programs of assistance to farmers and other rural residents organized on a cooperative basis.

The programs of RBS help close the gap in opportunity for these under-served rural areas and populations, bringing them closer to sharing fully in the nation's economic growth. The $1.1 billion requested in this budget for RBS programs will assist in creating or saving about 71,600 jobs and providing financial assistance to more than 2,700 businesses.

The functions of our cooperative programs are authorized under both the Cooperative Marketing Act of 1926 and the Agricultural Marketing Act of 1946. Our programs serve as the focal point of national activity to help farmers help themselves by providing the necessary advice and assistance. Examples of recent research and technical assistance include:

—*Equity Management Options for Midwest Dairy Cooperatives with Aging Membership.*—This project addresses the concern of Midwest dairy cooperatives that their aging dairy farmer membership were expected to retire from dairying and would take their cooperative equity with them at rates that would exceed the cooperatives' ability to replace that equity. The study identifies 12 options on a continuum toward permanent equity programs, including transitional options that would allow for gradual equity program changes.

—*Pork America.*—Cooperative Services has provided technical assistance to Pork America since their formation a year ago. The organization is attempting to supply pork to several under-served value-added markets and is investigating the acquisition of a processing plant.

BUSINESS AND INDUSTRY GUARANTEED LOAN PROGRAM

For the Business and Industry (B&I) Program, the fiscal year 2002 budget includes $27.4 million in budget authority to support $1.0 billion in Guaranteed Loans. This is an increase in budget authority compared to last year. To offset some of the increase in loan subsidy necessary to support the $1.0 billion program funding level, an increase in guarantee fees from 2 percent to an equivalent of 3.25 percent is included as part of this request.

We are again making available $200 million for financing for cooperative businesses. Priority will continue to be given to projects involving farmer-owned, value-added cooperatives. This provides a means of helping farmers keep more of the income generated by their product. In addition, this financing is available for guarantees of individual farmer's purchase of cooperative stock in a start-up cooperative established for value-added processing of an agricultural commodity raised by the individual farmer stockholders. With the proposed level of funding of $1.0 billion, we estimate that this program will create or save about 28,400 jobs; but, equally as important under this guaranteed loan program, we are able to partner with local lenders in providing financing for rural businesses and thus contribute to the building of community economic stability. This program allows lenders to better meet the needs of rural businesses. Through the lender's reduced exposure on guaranteed loans, they are able to meet the needs of more businesses at rates and terms the businesses can afford.

To illustrate how this program has improved the economic climate in an underserved area of rural America, I would like to share a success story from Missoula, Montana. RBS issued a Business and Industry loan guarantee, totaling $2,104,340, to Valley Bank of Belgrade, Montana, to assist American Eagle Instruments, Inc., and American Eagle Properties, LLC, (American Eagle) of Missoula, Montana. American Eagle used the financial assistance to expand their business for the development and sale of high tech lubricants, cleaners, and anti-microbial products used in the dental industry. As a result of the financing, American Eagle increased employment to 90 full-time employees, up from 70 full-time employees. The wages received by the employees, in addition, exceed the State average. American Eagle has expanded to be the fastest growing hand dental instrument business in the world, performing in the top 5 percent of the dental industry. This business has expanded through the United States and 40 major foreign countries.

BUSINESS AND INDUSTRY DIRECT LOAN PROGRAM

The fiscal year 2002 budget does not include funding for the B&I Direct Loan Program. This program has been authorized at $50 million each fiscal year since fiscal year 1997, but has yet to utilize the full amount of the authorization. Furthermore, the subsidy rate in fiscal year 1997 through fiscal year 2000 was a negative subsidy. Starting in fiscal year 2001, a positive subsidy rate of 6 percent was due to a larger than anticipated default rate. The projected subsidy rate for fiscal year 2002 was calculated to be 28 percent, due to substantially higher than anticipated default rates. It was concluded that the program should not be funded in fiscal year 2002, since the higher default rate indicated that the program was not meeting the intended purpose of providing long-term, stable jobs in rural America.

INTERMEDIARY RELENDING PROGRAM

The fiscal year 2002 Budget also includes $16.5 million in budget authority to support over $38 million in loans under the Intermediary Relending Program (IRP). The initial investment of this proposed level of funding will create or save an estimated 8,600 jobs, but, because these funds, over the 30-year loan term, are reloaned three or four times by the intermediary, we estimate that over 29,200 jobs will eventually be created or saved.

The President's Budget also provides that $4.0 million in requests for IRP loans shall be for Native Americans and $8 million for IRP loans for the Mississippi Delta region.

The IRP regulation was revised in 1998 and is now more user-friendly. It authorizes the Rural Development State Offices to process applications at the State level rather than submitting them to the National Office for processing. This change has accelerated the application process and allows State Offices to provide immediate feedback to borrowers concerning their applications. Participation by other private credit funding sources is encouraged in this program, since this program requires the intermediary to provide, at a minimum, 25 percent in matching funds. The demand for this program continues to be strong, To illustrate the benefits IRP provides to rural America, I would like to share with you a success story from Humboldt County, Illinois.

Corn Belt Power Cooperative, a generation and transmission cooperative for 10 rural electric cooperatives, applied for funds to establish a revolving loan fund to assist with job creation and community development in north central Iowa. The initial lending of $1 million ($800,000 IRP funds and $200,000 matching funds) was disbursed to six projects within 12 months of closing. Loan funds were used for the purchase of new equipment, construction of a new building for a business start-up, expansion of an existing building to accommodate a growing company, community infrastructure needs, and an assisted living facility. The IRP funds were leveraged with public and private sector funds and owner equity to make each project happen. The projects were located in five different communities in the intermediary's service territory. As a result of this relending activity, 16 jobs have been created and 35 jobs were saved.

RURAL BUSINESS ENTERPRISE GRANT PROGRAM

For the Rural Business Enterprise Grant (RBEG) Program, the fiscal year 2002 Budget includes almost $41 million. We anticipate that this level of funding will create or save over 11,100 jobs. The purpose of this program is to assist small and emerging businesses. The small amount of funds we typically invest in a project, on a dollar-for-dollar basis, on an average, generates another $2.40 in private capital. Among the many eligible grant purposes under this program is the establishment of a revolving loan fund by the grantee to support small and emerging business development in rural areas.

For example, a $715,360 RBEG was awarded to the Rosedale-Bolivar County Port Commission in Rosedale, Mississippi. The Commission operates a publicly owned river-port terminal, created to allow many smaller companies to utilize water transportation that cannot afford either the large capital expenditures for marine facilities or do not move enough tonnage for a dedicated specialized terminal. The RBEG was leveraged with $718,840 of other capital. RBEG funds were used for enhancement to the port, including construction of a dry bulk unloading facility, rehabilitation of an elevated water tank, and for purchase of a 30,000 pound forklift in an effort to attract new small emerging businesses to this economically depressed area. This port is located in the Mississippi Delta and is a part of the Mid-Delta Empowerment Zone Alliance (MDEZA).

As a result of this grant, 38 jobs were created at the Rosedale-Bolivar Port. With improvements in place, the Bolivar County Board of Supervisors has approved leases for two additional small businesses which will create an additional 70 to 75 jobs. Both of these two new businesses are female, minority-owned.

RURAL ECONOMIC DEVELOPMENT LOAN PROGRAM

The fiscal year 2002 Budget requests almost $15 million in Rural Economic Development Loans. This program represents a unique partnership, since it directly involves the rural electric and telecommunications borrowers in community and economic development projects. These borrowers are the intermediaries through which the funds are invested locally. In fiscal year 2000, each dollar invested through these programs attracted an additional $4.56 in other capital. This loan program, primarily used for economic development activities, provides a zero-interest loan to the cooperative, which guarantees repayment of the loan to the Government.

To illustrate the benefits of this program, I would like to share with you a success story from New England, North Dakota. A $400,000 zero-interest 10-year loan was provided to Slope Electric Cooperative, Inc. (Slope), in New England, North Dakota. Slope, in turn, relent the loan at zero-interest for a 10-year period to the City of Hettinger, in Adams County, to assist in constructing a building and purchasing equipment to be leased to Killdeer Mountain Manufacturing (KMM).

KMM is a successful company headquartered in Killdeer, North Dakota, approximately 100 miles north of Hettinger, that employs 90 people in manufacturing high performance electronic assemblies. Utilizing the building and equipment provided by the City of Hettinger, KMM will establish a satellite location in Hettinger that will be used for light contract manufacturing work. This satellite location, currently under construction, will create 35 new full-time job opportunities for Hettinger and Adams County residents. Adams County is located in the South West Rural Economic Area Partnership (REAP) Zone.

RURAL BUSINESS OPPORTUNITY GRANT PROGRAM

The fiscal year 2002 budget includes almost $3 million for Rural Business Opportunity Grants to provide much-needed technical assistance and capacity building in rural areas. One of the most significant non-capital needs in most rural areas is the capacity to develop the economic and community development strategies necessary to attract private investment capital and Federal and State assistance. The vast majority of rural communities are served by part-time officials who do not have the time or necessary training to compete with large communities for funding that may be available to them. The funds requested under this program will aid in providing that invaluable assistance to allow communities to take the first step in assisting themselves.

To illustrate this, grant assistance under this program, in the amount of $114,600, was provided to the Southernmost Illinois Delta Empowerment Zone, Inc., located in Ullin, Illinois. This area has experienced the loss of over 150 jobs in the last 3 years. The Rural Business Opportunity Grant funds are being used to provide credit counseling, revolving loan fund financial assistance and administration, development of training programs, and to identify potential business and economic development opportunities in the Empowerment Zone area. Rural Cooperative Development Grant Program for the Rural Cooperative Development Grants (RCDG) Program, the fiscal year 2002 budget requests $4.5 million. Included in this amount, over $1.5 million would be used for projects which focus on assistance to small minority producers through their cooperative businesses.

This program complements our internal National and State Office technical assistance efforts by encouraging the establishment of centers for cooperative development. They provides expertise for conducting feasibility analysis, outreach, and other forms of technical assistance for new developing cooperatives.

An example of an RCDG is the Ala-Tom RC&D in Alabama. Four new, limited resource, and minority farmers' cooperatives were formed and continue to receive technical assistance in marketing techniques, governance structure, and cost-reduction strategies. They are the Southern Beef Growers' Cooperative, Southeastern Rabbit Cooperative, West Alabama Retail Cooperative, and West Alabama Farmers' Cooperative. Membership in these new cooperatives ranges from 30 to 100 farmers each.

APPROPRIATE TECHNOLOGY TRANSFER FOR RURAL AREAS PROGRAM

The Appropriate Technology Transfer for Rural Areas (ATTRA) program provides technical information to producers and their advisors on the best sustainable production practices. A budget request of almost $2 million is requested. This funding would support direct responses to over 16,000 inquiries from agricultural producers, extension personnel, and others on sustainable practices that reduce dependence on chemicals and is more environmentally friendly. ATTRA funding also provides support for a website that provides such information.

RURAL EMPOWERMENT ZONES AND ENTERPRISE COMMUNITIES GRANTS

For the Rural Empowerment Zones and Enterprise Communities, the President's fiscal year 2002 Budget requests almost $15 million to provide grants to the 5 Rural Empowerment Zones and 20 Rural Enterprise Communities delegated under Round II of this initiative. The purpose of the initiative is to target Federal, State, and local resources to low-income rural areas to demonstrate that innovative, comprehensive, and strategic alliances between private, public, and non-profit entities can work in concert to improve the economic strength of rural communities.

SALARIES AND EXPENSES

Before closing, I would like to urge the Committee to provide the requested funding for Rural Development Salaries and Expenses. Managing a $5.1 billion portfolio and providing service-oriented cooperative program of research or technical assist-

ance is a joint venture requiring both adequate program and Administrative funding. One cannot be achieved without the other.

Mr. Chairman, this concludes my formal statement on the fiscal year 2002 Budget. I would be happy to respond to any questions the Subcommittee may have regarding the Rural Business-Cooperative Service programs of the Rural Development mission area.

NATURAL RESOURCES CONSERVATION SERVICE

PREPARED STATEMENT OF PEARLIE S. REED, CHIEF

Thank you Mr. Chairman and members of the Committee for the opportunity to provide a summary of our 2002 budget request. Conservation is important to me. I've spent most of my life and my professional career devoted to addressing environmental problems and helping farmers and ranchers get sound conservation on the ground. The dedicated employees of the Natural Resources Conservation Service have made and continue to make a significant contribution in helping our Nation's land stewards conserve our vital resources.

I want to thank the Committee members for your support during the fiscal year 2001 appropriations process. I promise you that I will do my best to make sure NRCS effectively and efficiently delivers the conservation programs and projects we have been directed to implement. Your support means a healthier land and cleaner water for people all across America. Through conservation technical assistance we have been able to help land owners and operators install waste management systems and conservation buffers; improve irrigation efficiencies; enhance nutrient and pest management; control erosion; reduce salinity in the soil and water; and increase wetlands and wildlife habitats across this country.

Mr. Chairman, the fiscal year 2002 President's budget maintains or increases funding for most NRCS discretionary conservation programs, eliminates funding for conservation programs that have reached their statutory limitations, and proposes funding emergency programs from the President's National Emergency Reserve when natural disasters or emergencies occur.

DISCRETIONARY FUNDING

Overall, NRCS discretionary conservation programs reflect:

—Increased funding for mandatory pay raises of $21.7 million;

—Increased funding of $44 million for conservation technical assistance in support of the Conservation Reserve Program previously reimbursed through the Commodity Credit Corporation (CCC);

—Decreased funding of $109.8 million for Emergency Watershed Protection Program typically funded by supplemental funding;

—Decreased funding of $6.3 million for the elimination of funding for the Forestry Incentives Program; and,

—Decreased funding of $2.3 million for the elimination of funding for American Heritage Rivers and Urban Resources Partnership.

Mr. Chairman, the budget details for the NRCS discretionary conservation programs are as follows.

Conservation Operations

The fiscal year 2002 budget request proposes a net increase of $60.9 million from the fiscal year 2001 adjusted appropriations level of $712.5 million. This increase is essential for NRCS to keep our field employees on board.

Specifically, the budget includes a $44 million increase for providing technical assistance for Conservation Reserve Program participants. This technical assistance was previously reimbursed from the Commodity Credit Corporation (CCC). The budget also includes an additional $19.1 million for mandatory pay increases. These increases are partially offset by a one-time decrease of $2.2 million for termination of agency activities supporting the Urban Resources Partnership effort and American Heritage Rivers Initiative.

The $44 million proposed for technical assistance funding in support of the Conservation Reserve Program will enable the enrollment of 2.24 million acres in CRP under a general signup, the farmable wetlands pilot, and continuous signup activities. The funding change is needed because there are insufficient funds under the CCC Section 11 funding cap and Congress has had to provide supplemental funding for several years to fund this important workload.

The budget proposes to continue performing work at the fiscal year 2001 level for Animal Feeding Operations (AFO) related workload. The NRCS workload analysis

reports show that there are approximately 272,500 AFOs in this country that need to develop or revise their waste management plans. NRCS is providing leadership and technical assistance in addressing the AFO related environmental concerns. Specifically, NRCS has helped to establish the nutrient management technical standards, developed the standards for the comprehensive nutrient management plans needed for AFO and is helping producers implement components of the plans. In fiscal year 2002, the AFO related workload will focus on the direct planning and application stage.

In fiscal year 2001, Congress provided $18 million for the Grazing Land Conservation Initiative, a $1 million increase in funding from past years. The fiscal year 2002 budget proposes to continue funding at that level. With the $18 million level, NRCS is able to maintain staff needed to provide only priority technical assistance to private grazing landowners and managers.

In recent years, public concern for the environment and demand for NRCS technical assistance has grown significantly. The public concerns have included such issues as: pollutants from animal feeding operations; improper application of pesticides and fertilizers; inadequate nutrient management; agricultural air quality; continued excessive soil erosion on some lands and the resulting sedimentation; nonpoint sources of water quality degradation; the loss of prime and important farmlands; and invasive species on agricultural lands.

Few farmers and ranchers are able to respond to these public concerns without technical assistance from their local NRCS field office. Conservation Operations funding provided through the conservation technical assistance, soil survey, snow survey and water supply forecasting, and plant materials programs directly support local level technical assistance. We are able to provide one-on-one assistance with private land owners, farmers, ranchers and operators using up-to-date scientific information and techniques, detailed conservation plans, soils information, water supply information and plant science technology.

Mr. Chairman, NRCS would be able to continue this valuable assistance under the President's budget proposal.

Watershed and Flood Prevention Operations

For fiscal year 2002, the proposed budget provides approximately $10 million for Flood Prevention Operations under the Public Law 534 authorities and $90 million for Small Watershed Operations under Public Law 566 authorities. The proposal represents an increase of $1.2 million for pay costs, offset by a decrease of approximately $110 million for no new funding for the Emergency Watershed Protection Program (EWP).

Public Law 534 Flood Prevention Operations. Activities in this funding category are authorized in 11 specific flood prevention projects covering approximately 35 million acres. Under the fiscal year 2002 budget proposal, $10 million will be provided for eligible high priority subwatershed projects that contribute to solving water quality and other environmental problems.

Public Law 566 Small Watershed Operations. In cooperation with local sponsoring organizations, State and other public agencies, NRCS provides technical and financial assistance to voluntarily plan and install watershed-based projects on private lands. Under the fiscal year 2002 budget proposal, $90 million will be used to implement a watershed approach to a broad range of conservation issues, including water quality improvement, wetland restoration, agricultural water management, stream restoration, fish and wildlife habitat improvement and soil quality improvement. During fiscal year 2002, we estimate that over 500 projects will remain active and a minimum of eight new projects will be approved.

Emergency Watershed Protection.—After the government wide rescission was applied, EWP was funded in the amount of $109.758 million for fiscal year 2001. Of this amount $21.952 million is for technical assistance, $52.883 million for financial assistance, and $34.923 million for the purchase of floodplain easements. The fiscal year 2002 Budget proposes to fund any assistance needed through the National Emergency Reserve.

Of all EWP funds available, including carry over funds, in fiscal year 2001 to repair damages to waterways and watersheds resulting from natural disasters, NRCS has committed over $170 million to all 50 states, Puerto Rico and the Pacific Basin. There are currently 104 ongoing projects in 40 states. NRCS has exhausted available funds for any new disaster or emergency activity in fiscal year 2001.

Aging Watershed Infrastructure.—The fiscal year 2000 and fiscal year 2001 appropriations bills included authorization to use $8 million each year of EWP funds for pilot rehabilitation projects in Ohio, New Mexico, Mississippi, and Wisconsin. Fifteen dams in 10 watershed projects were selected in these four States to demonstrate the variety of alternatives that will be involved and issues that will be en-

countered with rehabilitation, as well as the many benefits. The planning is complete on all projects, designs are in progress, and implementation should begin this summer.

Watershed Surveys and Planning

The President's fiscal year 2002 budget proposal would essentially continue activities at a slightly increased level of $116 thousand over the adjusted fiscal year 2001 appropriated level of $10.844 million. This represents an increase for mandatory pay increases partially offset by a one-time decrease for technical assistance activities associated with the American Heritage Rivers Initiative. As in fiscal year 2001, these funds will be used to make cooperative river basin studies, floodplain management studies, floodplain insurance studies, and provide assistance to sponsoring local organizations in developing plans on watersheds.

Resource Conservation and Development (RC&D)

Mr. Chairman, the RC&D program plays a vital role in rural communities. NRCS works in partnership with local volunteers organized as Resource Conservation and Development Councils representing multi-county areas. Council members consist of public and private sector sponsors and other local organizations. The RC&D program was established to encourage and improve the capability of State and local units of government and local nonprofit organizations in rural areas to plan, develop, and implement programs for resource conservation and development. RC&D areas are sponsored by Council members who carry out the goals of the RC&D area plans.

Currently, 348 USDA designated RC&Ds serve 2,492 counties in all fifty States, the Caribbean, and the Pacific Basin. This represents an increase of 33 new councils from fiscal year 2000. Designated areas serve approximately 82 percent of the counties in the United States. In addition, NRCS currently has 27 application areas awaiting funding or designation.

In fiscal year 2001, NRCS received $41.923 million in direct appropriation including the government wide rescission impact and $1 million from the Fund for Rural America for a total program level of $42.923 million. The President's budget proposes an increase of $1 million to support mandatory pay increases.

COMMODITY CREDIT CORPORATION FUNDED CONSERVATION PROGRAMS

Several of the conservation programs funded from the Commodity Credit Corporation will have reached their fully authorized levels by the end of fiscal year 2001. They include the Wetlands Reserve Program, Wildlife Habitat Incentives Program, Farmland Protection Program, and Soil and Water Conservation Assistance. The President's budget does not include any proposal to extend those programs, the Administration will be working closely with congress throughout the next Farm Bill's development to reauthorize high priority conservation programs. While the following highlights the fiscal year 2002 budget proposals and recent program accomplishments for the CCC funded conservation programs.

Environmental Quality Incentives Program

In fiscal year 2001, EQIP received $174 million from the Agriculture Appropriations Act and $26 million, in supplemental appropriations, from the Omnibus Appropriations Act. EQIP funding provided by the Omnibus Appropriations Act were subject to the rescission, so the total funding available for EQIP in fiscal year 2001, is approximately $199.943 million.

The fiscal year 2002 funding request of $174 million reflects the same level of funding provided by the Agricultural Appropriations Act of 2001.

Since inception in 1997, over 2,150 conservation priority areas have been nominated and over 1,350 priority areas have received funding in at least one of the last four years. Over 180,000 contracts have been entered into EQIP, providing important conservation measures on over 34 million acres across this country.

During the past four years, almost $597 million was obligated to producers as financial assistance to install conservation systems and practices to address locally identified resource issues. Of this amount, approximately $300 million went to assist with animal waste management, grazing management, and irrigation water management. These funds have helped farmers and ranchers install waste storage systems, waste management systems and nutrient management practices on over 16 million acres. Grazing lands resource concerns were addressed with cost-share assistance on 84 million feet of fencing, 1.2 million acres of pasture and hay planting, and almost 1.7 million acres of brush management. Additionally, EQIP assisted farmers and ranchers throughout the country with upgrading irrigation systems and the establishment of irrigation water management to reduce drain on water sup-

plies, reduce salinity load in the Colorado River Basin and improve farming operations. The remaining $297 million was used to address a variety of locally identified resource issues and concerns including soil erosion control which benefits water quality and sustained soil productivity; forest land and forest fire fuel management, upland and wetland wildlife management, habitat restoration and improvement and farmland protection.

The budget proposal would continue to address these important conservation concerns.

Wetlands Reserve Program

The Wetlands Reserve Program (WRP), originally authorized by the Food Security Act of 1985 and subsequently amended by the 1990 and 1996 Farm Bills, is a voluntary program that provides technical and financial assistance to eligible landowners to address wetland, wildlife habitat, soil, water, and related natural resource concerns on private lands in an environmentally beneficial and cost effective manner.

The fiscal year 2001 Appropriations Act increased the maximum number of authorized enrollment acres for the program by 100,000 acres to 1,075,000 acres. By the end of fiscal year 2001, program activity will have reached this limitation.

Landowners are provided three program participation options: (1) short-term 10-year cost-share agreement restorations; (2) mid-term 30-year conservation easement restorations; and (3) permanent easement based restorations. Financial assistance in the form of easement payments and restoration cost-share assistance is included. Technical restoration and management assistance is also provided.

Mr. Chairman, in fiscal year 2001, NRCS anticipates enrolling 140,000 acres into WRP using $181.8 million for financial and technical assistance. The President's budget request does not include a request to increase acreage enrollment at this time, but this will be included in the upcoming farm bill debate.

Agricultural Management Assistance Program

The Agricultural Management Assistance Program (AMA) is authorized by the agriculture Risk Protection Act of 2000 (ARPA). The program provides cost-share assistance to producers to construct or improve water management structures or irrigation structures; plant trees for windbreaks or improve water quality; and mitigate crop failure risks through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming. AMA also provides cost-share assistance to producers to enter into futures, hedging, or options contracts in a manner designed to help reduce production, price, or revenue risk; and enter into agricultural trade options as a hedging transaction to reduce production, price, or revenue risk.

ARPA provides $10 million annually through the CCC for AMA cost-share assistance in 10–15 States, as determined by the Secretary, in which participation in the Federal Crop Insurance Program is historically low. The fifteen states selected by the Secretary to participate in the program are Connecticut, Delaware, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. In 2001, NRCS will receive $6 million in AMA funding with the balance going to Risk Management Agency and Agricultural Marketing Service.

The President's budget assumes continuation of the program into fiscal year 2002 as authorized by law. The distribution of these funds will be determined by the Secretary at a later time.

One-time fiscal year Funding

The Agriculture Risk Protection Act of 2000, as amended by the Agriculture Appropriations Act, 2001 and Omnibus Appropriations Act, 2001, provided new funding for Soil and Water Conservation Assistance (SWCA) and additional funding for the Wildlife Habitat Incentives Program (WHIP) and Farmland Protection Program (FPP) in fiscal year 2001.

WHIP provides cost-sharing for landowners to apply an array of wildlife practices to develop habitat that will support upland wildlife, wetland wildlife, threatened and endangered species, fisheries, and other types of wildlife. In fiscal year 2001, additional WHIP funding includes $664,875 paid from carryover balances and $12.5 million from ARPA. It is anticipated the NRCS will enroll 365,000 acres in long-term wildlife habitat agreements that provide benefits to upland acres, wetland acres, and acreage being threatened or with endangered species.

FPP provides cost-share for acquiring conservation easements or other interests to limit conservation of agricultural lands to non-agricultural uses. FPP acquires perpetual conservation easements on a voluntary basis on lands with prime, unique, or other productive soil that presents the most social, economic, and environmental

benefit. NRCS has received 100 proposals covering 778 farms and 174,800 acres with a total easement value of $303 million. Requests for Federal dollars have exceeded $116 million. While no decisions have been made to date, NRCS anticipates obligating all of the $17.5 million available for FPP by the end of fiscal year 2001.

SWCA provides cost-share and incentive payments to farmers and ranchers to address threats to soil, water, and related natural resources in areas not designated as national conservation priority areas. These voluntary efforts provide proven soil and water conservation practices on farms and ranches with an emphasis on conserving water or improving water quality. The program will provide $20 million in fiscal year 2001 for cost-share and incentive payments to farmers and ranchers. Signup activities are expected to be completed in fiscal year 2001.

The President's budget does not propose additional funding for these programs.

CONSERVATION THROUGH PARTNERSHIPS

Mr. Chairman, as you know, NRCS has operated since its creation through voluntary cooperative partnerships with individuals, state and local governments, and other Federal agencies. That partnership is as important today as it ever was. In fact, it may be even more important, if we are to meet the challenging conservation problems facing our Nation's farmers and ranchers.

NRCS has worked with more than 5 million farmers, ranchers, producers, operators, and private landowners as well as local communities to help them conserve their natural resources by gaining knowledge about new conservation problems and solutions, by providing guidance and advice, and by developing and helping implement conservation plans. NRCS does this by working with nearly 3,000 local conservation districts that have been established by state law and with American Indian Tribes and Alaska Native Governments.

State and local governments contribute substantially to the conservation effort, with both people and funding to complement NRCS technical and financial assistance. Approximately 7,400 FTE of assistance is provided annually by NRCS partners and volunteers. In addition, state and local governments match dollar for dollar, for every one Federal dollar provided for conservation. And Americans have generously given their time to volunteer with NRCS as part of the Earth Team Volunteers effort. In fiscal year 2000, approximately 38,000 people volunteered their time locally, working approximately 430 FTE.

And we work closely with other Federal agencies such as our sister agencies in the Department of Agriculture, the Forest Service, Farm Service Agency, and Rural Development, as well as Agricultural Research Service, Cooperative State Research, Education and Extension Service and other Departments, including the Environmental Protection Agency.

Good conservation doesn't just happen. It takes all of us, including Congress, working together to make it happen. This concludes my statement, Mr. Chairman. I will be glad to answer any questions.

OFFICE OF COMMUNICATIONS

PREPARED STATEMENT OF KEVIN HERGLOTZ, ACTING DIRECTOR OF COMMUNICATIONS

Mr. Chairman and members of the Subcommittee, I am pleased to discuss the fiscal year—fiscal year 2002 budget request for the Department of Agriculture's Office of Communications.

When Congress wrote the law establishing the U.S. Department of Agriculture in 1862, it said the department's "general designs and duties shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of the word." The Office of Communications coordinates the implementation of that original mandate.

The Office of Communications coordinates communications with the public about USDA's programs, functions, and initiatives. It is a crucial link in the Department's efforts to protect and inform consumers by providing information on a broad range of topics such as food safety and issues that may affect consumer confidence or cause concern such as Foot and Mouth Disease (FMD) and bovine spongiform encephalopathy (BSE). It also coordinates the communications activities of USDA's seven major mission areas in their efforts to provide timely and accurate information to the general public and the Department's other constituencies, and provides leadership for communications within the Department to USDA's employees.

The Office of Communications is adopting new technologies to meet the increased demands for information. Using the Internet's world wide web, radio, television and

teleconference facilities, we are able to ensure that the millions of Americans whose lives are affected by USDA's programs receive the latest and most complete information. The Office of Communications' 5-year strategic goal is:

To support the Department in creating a full awareness among the American public about USDA's major initiatives and services. This is essential to providing effective information services and efficient program delivery and should result in more citizens-especially those in under served communities and geographic areas-availing themselves of helpful USDA services and information.

The Office of Communications will continue to take an active part in policy and program management discussions by coordinating the public communication of USDA initiatives. We will continue to provide centralized operations for the production, review, and distribution of USDA messages to its customers and the general public. We will also monitor and evaluate the results of these communications. Staff will be instructed in using the most effective and efficient communications technology, methods, and standards in carrying out communications plans.

We intend to improve communications with USDA employees, especially those away from headquarters. This will enhance their understanding of USDA's general goals and policy priorities, programs and services, and cross-cutting initiatives.

Our office will also work hard to meet our performance goals and objectives. We will work to communicate updated USDA regulations and guidelines, conduct regular training sessions for USDA communications staffs about using communication technologies and processes to enhance public service, foster accountability for communications management performance throughout USDA, and continue to work to create a more efficient, effective and centralized Office of Communications. Increasing availability of USDA information and products to under served communities and geographic areas through USDA's outreach efforts is integral to our performance efforts. The Office of Communications will also provide equal opportunity for employment and promote an atmosphere that values individual differences.

FISCAL YEAR 2002 BUDGET REQUEST

The Office of Communications is requesting a budget of $8,894,000. This is a net increase of $290,000 over our fiscal year 2001 budget. The net increase includes $72,000 for annualization of the fiscal year 2001 pay raise and $218,000 for the anticipated fiscal year 2002 pay raise.

Our central task is to ensure the development of communications strategies which are vital to the overall formation, awareness and acceptance of USDA programs and policies. Since more than 91 percent of the Office of Communications' obligations are for salaries and benefits, this increase is vital to support and maintain staffing levels for current and projected demands for our products and services. Since our current budget leaves little flexibility for absorbing increased costs, the Office of Communications cannot absorb these additional salary costs without placing severe constraints on daily operations. This could result in an unacceptable decrease in the Office of Communications' ability to support the Secretary in providing timely and accurate information to the public, the media, business and other constituencies. When dealing with issues such as Foot and Mouth Disease (FMD), bovine spongiform encephalopathy (BSE), forest fires, floods or issues of food safety, the Secretary needs every available resource to communicate with the media, the Department's constituencies and our international partners. Reductions in OC's capabilities caused by a loss of the proposed salary costs would diminish the Secretary's ability to respond to the local, national and international issues that confront the Department today and directly affect significant portions of the American public.

This concludes my statement, Mr. Chairman. I will be pleased to respond to any questions.

OFFICE OF THE GENERAL COUNSEL

PREPARED STATEMENT OF JAMES MICHAEL KELLY, ACTING GENERAL COUNSEL

INTRODUCTION

Mr. Chairman and members of the Subcommittee, I am pleased to have this opportunity to provide you with an overview of our agency and to address some of the current activities and issues facing the Department.

MISSION

The Office of the General Counsel (OGC) is the law office for the Department. As an independent, central agency within the Department, OGC provides legal advice

and services to the Secretary of Agriculture and other officials of the Department of Agriculture with respect to all USDA programs and activities.

ORGANIZATION

OGC's services are provided through 12 Divisions in Washington and 18 field locations. The headquarters for OGC is located in Washington, D.C. The Office is directed by a General Counsel, a Deputy General Counsel, a Director for Administration and Resource Management, and six Associate General Counsels. The attorneys located in headquarters are generally grouped in relation to the agency or agencies served. Our field structure consists of five regional offices, each headed by a Regional Attorney, and 13 branch offices. The field offices typically provide legal services to USDA officials in regional, State, or local offices.

CURRENT ACTIVITIES AND ISSUES

INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS

During this past year, OGC has provided significant legal assistance to officials of numerous offices in the Department regarding domestic commodity programs and international affairs matters affecting agriculture. Primarily, these officials are from the Farm Service Agency (FSA) and the Foreign Agricultural Service (FAS). For FSA, OGC has provided significant assistance with respect to income, commodity, conservation and disaster assistance programs. These activities involved the clearance of approximately 50 regulations supporting programs that have expenditures of approximately $10 billion. These diverse programs included assistance for producers of tobacco, cotton, cranberries, apples, potatoes, livestock, dairy products and honey. OGC attorneys devoted significant resources in dealing with numerous Commodity Credit Corporation (CCC) activities. This included: (1) the establishment of a payment-in-kind land diversion program involving CCC inventories of sugar; (2) a bio-fuel program to encourage the additional use of agricultural commodities in the production of fuel additives; and (3) a pilot program which permits the nation's elderly low-income population to purchase fresh fruits and vegetables at farmers' markets.

OGC has supported the work of FAS in the implementation of a number of major international trade and foreign assistance initiatives. Our involvement in the international trade area includes enforcement of the commitments received in the Uruguay Round Agreements and preparations for a new round of World Trade Organization (WTO) negotiations to strengthen international trading rules and address specific issues such as credit and credit guarantees and expanded free trade in the Americas. During fiscal year 2001, OGC was involved in the current round of WTO Agriculture Agreement negotiations. In addition, OGC was and will continue to be involved in negotiations to create a Free Trade Area of the Americas. OGC also continued its work with USDA agencies on issues arising in connection with the revised International Plant Protection Convention, a multilateral convention aimed at promoting international cooperation to control and prevent the spread of harmful plant pests.

OGC will continue to be actively involved in the enforcement and application of present international trading rules. During the past year, OGC participated in WTO consultations, panel consideration, appeals, and arbitrations involving various trade disputes. These included: (1) Japanese phytosanitary issues; (2) Canadian dairy export subsidies; (3) ensuring the European Union's compliance with the WTO decision striking the ban on imports of meat produced with growth-promoting hormones; (4) access to South Korean markets for U.S. beef; (5) defending U.S. safeguard actions on lamb meat and wheat gluten; (6) Canadian antidumping and countervailing duty actions against U.S. corn; (7) the imposition of countervailing duties by Chile on U.S. milk powder; and (8) consultations with Mexico on access for avocados.

OGC is extensively involved in providing legal advice for the export credit, supplier credit, and facilities guarantee programs. OGC continues to be extensively involved in negotiations on export credits and credit guarantees in agriculture taking place under the auspices of the Organization for Economic Cooperation and Development. OGC also provides extensive legal advice and review for the International Cooperation and Development Division of FAS regarding their international agricultural cooperative efforts and arrangements.

During the past year, OGC has been involved in the implementation of a large number of foreign assistance agreements donating agricultural commodities, including surplus commodities acquired by CCC. These agreements are under Title I of Public Law 83–480, section 416(b) of the Agricultural Act of 1949, and the Food for Progress Act. The implementation of these agreements involves extensive review of

draft agreements, commodity procurement, ocean transportation issues, and cargo loss and damage claims. In connection with these assistance programs, OGC extensively participated in developing the framework for instituting the Global Food for Education Initiative involving the donation of CCC stocks of agricultural commodities abroad. We expect the demand for legal services in connection with FSA, FAS, and CCC activities to increase in fiscal year 2002, especially in the preparation for new omnibus farm legislation.

FOOD AND NUTRITION DIVISION

With respect to USDA's domestic food assistance programs, OGC has been heavily involved in efforts related to the review of proposed legislation and the implementation and enforcement of new legislation aimed at welfare reform and other program improvements, as well as the ongoing program integrity and compliance initiatives. We expect the demand for legal services in connection with these activities to remain constant in fiscal year 2001 and 2002.

More specifically, during this past year, OGC attorneys worked closely with the Food and Nutrition Service (FNS) to implement the provisions of the Agriculture Research, Extension, and Education Reform Act of 1998 (AREERA), Public Law 105–185; the William F. Goodling Child Nutrition Reauthorization Act of 1998 (Goodling Act), Public Law 105–336; the Balanced Budget Act of 1997 (BBA), Public Law 105–33; and the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (Immigration Reform Act), Division C of Public Law 104–208, the Electronic Benefit Transfer Interoperability and Portability Act of 2000 (Public Law 106–171), the Agricultural Risk Protection Act of 2000 (Public Law 106–224), and the Grain Standards and Warehouse Improvement Act of 2000 (Public Law 106–472). OGC provided assistance in connection with the implementation of the food stamp administrative payment reduction and alien eligibility provisions of AREERA, the legislative changes to the Child Nutrition Programs intended to ensure integrity in program administration brought about by the Goodling Act, and continuing assistance with implementation of BBA provisions regarding funding of food stamp education and training activities.

In connection with the Immigration Reform Act, OGC is representing USDA's interests in ongoing inter-agency discussions aimed at providing a uniform and predictable test for determining when the receipt of benefits renders an alien deportable, inadmissable or ineligible for adjustment of alien status as a result of being likely to become a public charge. OGC provided counsel on proposed legislation to provide capped Federal funding for State costs incurred for switching and settling interstate transactions under the requirement that electronic food stamp benefits be interoperable among States by October 1, 2002. OGC assisted in the formulation of legislation which enhances the exchange of information regarding participants in the National School Lunch Program (NSLP) with State health officials for the purpose of identifying children eligible for State children's health insurance programs.

OGC assisted in the development of legislative proposals to provide additional commodities to schools under the NSLP, to provide new administrative review procedures for institutions suspended from participation in the Child and Adult Care Food Program (CACFP), and to establish standards for proof of residency for individuals living in remote Indian or Native villages under the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). OGC also provided counsel with regard to a Department of Defense legislative proposal to create a subsistence benefit program to replace food stamp benefits for military personnel.

During fiscal year 2001, OGC assisted in the defense of Food Stamp Program litigation challenges raised by potential food stamp participants concerning State implementation of certain welfare reform provisions initiated by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), Public Law 104–193. These issues concerned State food stamp policies with respect to applicant awareness and access to the Food Stamp Program. OGC is also assisting in the defense of a class action lawsuit in New York State which challenges the implementation of the Debt Collection Improvement Act with regard to food stamp recipients. With respect to the Child and Adult Care Food Program, OGC has been working with counsel for several States in pursuing Federal and State administrative claims arising from audits performed by the Department's Office of Inspector General.

The implementation of the alien provisions of the PRWORA continues to generate litigation in several States. These lawsuits have, thus far, been successfully defended in the lower courts. Several cases are currently pending before appellate courts and the first petition for certiorari has been filed with the United States Supreme Court. These include: (1) a challenge to the constitutionality of a statutory provision which makes convicted drug felons ineligible for benefits under the Food

Stamp Program; (2) a favorable decision upholding the award of a $1.3 million False Claims Act (FCA) judgement against a retail food store owner who had previously been convicted of trafficking in food stamps and who claimed that the FCA judgement, on top of the criminal sanctions, violated the double jeopardy and excessive fines clauses of the U.S. Constitution; (3) a favorable appellate court decision upholding the Secretary's formula for calculating civil money penalties against retail food stores that violate Food Stamp Program rules in the face of arguments that the formula violated the Administrative Procedure Act and the due process clause of the Constitution; (4) a decision upholding a statutory provision that makes suspension of retail food stores effective upon receipt of the notice of disqualification and provides immunity from damage actions based on losses sustained during administrative review in instances where the disqualification is reversed; and (5) the use of a cy-pres fund, a little used legal mechanism under which a fund is created to benefit a class of plaintiffs, in general, to avoid the necessity of determining claim amounts on an individual basis, in the settlement of a case in which $2.3 million was made available to public and private food banks to purchase commodities for the hungry.

OGC reviewed an extensive revision of the Food Stamp Program regulations related to the attribution of the income of sponsors to sponsored aliens and an exhaustive revision of the Program's new application processing rules required by the implementation of the PRWORA. OGC reviewed and assisted in the development of new provisions regulating the participation of vendors in the WIC program, including provisions requiring more frequent State review of vendor compliance and the identification of vendors representing a high risk for program violations. OGC provided counsel on the availability of a portion of the Federal funds (provided in connection with meals) for use by sponsors of child care centers to recover their administrative costs in the CACFP. OGC provided assistance to the Office of Inspector General in developing an audit regarding a major CACFP day care sponsor in order to simplify the audit findings and respond to issues likely to be raised in anticipated litigation arising out of the audit. OGC also provided assistance to USDA and Food and Drug Administration officials in developing a consistent approach to the safety issues inherent in the use of banked human breast milk and to determine when and how such milk may be used in the WIC program. OGC continued to address numerous issues arising from the nationwide rollout of electronic benefit transfer (EBT) in the Food Stamp Program and demonstrations of the use of EBT in other food assistance programs. OGC also reviewed proposed legislation to require interoperability of EBT cards among States implementing EBT systems.

REGULATORY AND MARKETING PROGRAMS

Providing strong legal support to the Department's food safety and inspection programs has been and will continue to be one of OGC's top priorities. We continue to work closely with Food Safety and Inspection Service (FSIS) on the implementation of the Hazard Analysis and Critical Control Points (HACCP)/Pathogen Reduction rule and on the HACCP-based pilot programs to test new inspection models that the agency believes will lead to more effective inspection and better use of scarce resources. In that regard, we worked with the Department of Justice, on a remand from the Court of Appeals, to successfully defend the validity of the HACCP rules and FSIS' authority to test redesigned inspection models in a case brought by the American Federation of Government Employees, the Community Nutrition Institute, and several FSIS meat inspectors. In a decision issued on January 17, 2001, the District Court found that the modified inspection procedures satisfied the Federal Meat Inspection Act and the Poultry Products Inspection Act.

We also provide comprehensive legal support to FSIS' rulemaking activities. In the recent past, we have worked with FSIS staff on the residue policy regarding carcass disposition; the policy regarding E.coli 0157:H7 contamination of beef products; shell egg and egg products inspection regulations; performance standards for online antimicrobial reprocessing; sharing recall information with state and other federal agencies; and regulations governing retained water in meat and poultry products.

In the past year, OGC has provided extensive legal services to the Agricultural Marketing Services (AMS) in various matters and will continue to work closely with AMS in the year ahead. OGC continues to provide assistance in the reform and consolidation of federal dairy marketing orders. A proposed rule on Class III and IV pricing was issued in May 2000. AMS issued an interim final rule in November 2000. OGC continues to work on litigation on these pricing regulations and it is anticipated that a final rule will be issued in January 2002.

The organic standards program continued to be an OGC priority. We provided extensive legal services working with AMS officials as they developed a final rule im-

plementing the Organic Foods Production Act of 1990. On December 21, 2000, a final rule was published that would establish a National Organic Program under that Act. Currently, we are working with the organic program staff in connection with a variety of issues relating to implementation of the program. We will continue to work with AMS as this program is further implemented.

The Commodity Promotion, Research, and Information Act of 1996 provides general authority for the Secretary to issue orders establishing new research and promotion programs. Prior to enactment of this statute, research and promotion programs were authorized under individual statutory authorities. The 1996 Act provides authority to tailor a program according to the individual needs of an industry. We are currently providing legal services to AMS in connection with industry-funded promotion, research and information programs implemented under this Act. To date programs for blueberries and peanuts have been established. Further, representatives of the apple, mango, and sweet corn industries have expressed interest in establishing programs. We will continue to work with AMS as these new research and promotion programs are proposed. We have continued to provide extensive legal services to AMS in connection with changes to the honey program as a result of the 1998 amendments to the Honey Research Promotion and Consumer Information Act and proposed changes to the watermelon program under the Watermelon Research and Promotion Act. OGC also is working with AMS in the development of a research and promotion program under the recently enacted Haas Avocado Promotion, Research and Information Act 2000.

OGC provided extensive legal services to AMS in connection with implementation of the Livestock Mandatory Reporting Act of 1999. OGC assisted AMS staff in drafting a proposed rule that would establish a mandatory program of reporting market information regarding the marketing of cattle, swine, lambs, and products of such livestock. A final rule was published in the Federal Register on December 1, 2000. This program provides information on pricing, contracting for purchase, and supply and demand conditions for livestock, livestock production, and livestock products. OGC also worked extensively with AMS in the development of a new inspection and certification program for equipment used in the slaughter, processing, and packaging of livestock and poultry products. A final rule concerning this program was published in the Federal Register on January 5, 2001.

Safeguarding the animal and plant health of the United States is a matter of paramount importance to the Department. OGC has partnered effectively with the Animal and Plant Health Inspection Service (APHIS) for many years in carrying out these program responsibilities and will continue to do so in the future. APHIS' responsibilities have become vastly more complex, requiring not just effective safeguarding measures, but programs to ensure the safe and smooth entry of people and goods into the United States, and the facilitation of agricultural trade in compliance with our international obligations. Similarly, OGC's responsibilities and the demands for timely and effective legal support of APHIS inspection and regulatory activities have increased as well. A new Plant Protection Act was passed in June, 2000. We worked very diligently with APHIS as the bill moved through the legislative process, and our attorneys are working just as hard in assisting APHIS with implementation of the new law. In addition, we have been extensively involved in APHIS' response to the Safeguarding review of its Plant Protection and Quarantine activities conducted by the National Plant Board. This has entailed detailed analysis of and responses to over 320 recommendations regarding APHIS' activities and how they are performed.

We have an exceptional relationship with APHIS program officials and with their regulation development staff, and we have worked very closely with them in connection with an array of rulemaking activities that included rules for the movement of certain land tortoises with ticks that are vectors of Heartwater disease, the regulation of sheep and goats for scrapie, and rules dealing with bovine tuberculosis and pseudorabies in swine. On the plant side, we have assisted with regulations for Plum Pox in Pennsylvania, citrus canker in Florida, noxious weeds, and the glassy winged sharpshooter. With our help, APHIS developed an advance notice of proposed rulemaking concerning regulation of horses due to Equine Viral Arteritis under the animal quarantine laws. In connection with the facilitation of international trade, our attorneys provided very effective support for APHIS activities related to the development of rules that will allow new commodities to enter U.S. markets while ensuring that America's agricultural resources are not impaired and that plant and animal health in the U.S. are not compromised. These regulations have included requirements for an array of commodities ranging from fruits and vegetables to animals and animal products. They include the regulation of animals and animal products due to bovine spongiform encephalopathy (BSE) or Mad Cow Disease, Regionalization of the European Union due to Classical Swine Fever, citrus

from Argentina, the regulation of solid wood packing material, the importation of artificially dwarfed plants, invasive species, and accreditation of laboratories for certification of seed for export.

Our attorneys have also dedicated substantial resources to defending APHIS program activities and regulations in the federal courts, including a challenge to the Department's authority to order disposal of sheep in Vermont which were diagnosed with a transmissible spongiform encephalopathy (TSE), and a challenge to APHIS regulations allowing the importation of citrus from Argentina. We also handled a variety of administrative cases on behalf of APHIS to enforce its regulations. These cases have included prosecutions for violations of the standards for accredited veterinarians, the illegal importation of plant and animal products, violations of the regulations governing the interstate movement of various plants, animals and plant and animal products, and the falsification of phytosanitary certificates.

During fiscal year 2001, OGC anticipates expending substantial resources in connection with the Horse Protection Act Program. OGC attorneys serve as agency counsel in administrative enforcement actions bought under this statute, and in fiscal year 2000, OGC initiated 17 enforcement cases. We anticipate that the number of enforcement actions will increase in fiscal year 2001. In addition, OGC anticipates providing assistance and counsel to APHIS in connection with the training of Veterinary Medical officers working in the Horse Protection Program, and in the drafting, implementation and legal defense of APHIS's annual Operating Plan for the horse show season.

OGC provided substantial legal resources to APHIS in connection with enforcement of the Animal Welfare Act. In fiscal year 2000, OGC initiated 42 administrative enforcement cases. We expect that the number of enforcement cases will not diminish in fiscal year 2001. We also provided drafting assistance to APHIS in a number of rulemaking dockets concerning marine mammals held in captivity, confiscation of suffering animals, and licensing requirements for applicants.

In the Trade Practices area, we provide legal services under the Packers and Stockyards Act (P&S Act), the Perishable Agricultural Commodities Act (PACA), and the Capper Volstead Act and serve as the liaison for the Department under the Memorandum of Understanding between the Department, the Federal Trade Commission and the Department of Justice. Of special note this year under the P&S Act, we are litigating two enforcement cases against large packers alleging violations of the Act. Our complaint against Excel Corporation alleges that the packer engaged in an unfair practice when it changed the formula by which it calculated lean percent in slaughter hogs, a calculation that directly affected the price the packer paid to producers, without telling producers of the change. As a result of the change, the packer paid lower prices for 80 percent of the hogs it purchased. In the second case, the complaint alleges that Farmland National Beef Packing Company (Farmland) subjected a feedlot to an unreasonable prejudice or disadvantage by retaliating, changing its buying practices (and failing to buy at all) after the feedlot manager criticized the packer in a letter to a farm journal. The hearing in the Excel case has been completed and the briefing will be completed by September 2001; the Farmland hearing will be completed sometime this summer. In addition, we are assisting the Packers and Stockyards Programs (P&SP) of the Grain Inspection, Packers and Stockyards Administration (GIPSA) in its regulatory initiatives, including a series of regulations to clarify the requirements of the Packers and Stockyards Act with regard to recordkeeping and contract disclosure. OGC also referred a case against Perdue, Inc. to the Department of Justice alleging that Perdue had violated the P&S Act by its actions regarding the placement of producers on a rider production contract without meeting the contractual conditions precedent to the use of that contract. DOJ filed the complaint in that case and the case was settled with Perdue's agreement to clarify the conditions under which the rider contract would be used and the meaning of the terms the contract employs. As a result of last year's General Accounting Office report recommending changes in P&SP's investigation procedures in competition cases, OGC has agreed to work closely with P&SP on the process by which its investigations are planned and implemented and to assign attorneys to work with agency investigators in the initial stages of case development and investigation. Congress provided additional resources to OGC for the staffing necessary to provide these additional legal services, and OGC's participation in the early stages of P&SP's case investigation is now beginning.

OGC has provided significant legal resources to the PACA program this year, with a special emphasis on cases arising out of Operation Forbidden Fruit, the investigation and indictment of a number of federal inspectors and produce wholesalers for altering inspection documents as a result of bribes. A large number of reparation cases, cases between private parties that are determined by the Secretary, have been filed seeking damages as a result of the altered inspection documents. Again

this year, we have provided significant legal resources in the preparation of cases alleging that produce companies have misrepresented the kind or quality of produce they are selling. In one case, the Department alleges that an apple distributor misrepresented the variety of apple it shipped to retailers in more than two hundred transactions.

Also of significance in the Trade Practices area this year, OGC continues to act as liaison to the Department of Justice and the Federal Trade Commission on competition issues, pursuant to the Memorandum of Understanding between the three agencies. OGC expedites the provision of data or expertise to the Department of Justice (DOJ) on agricultural issues as DOJ or the FTC investigates firms or reviews mergers or acquisitions of agricultural businesses. OGC is also working closely with the FTC and DOJ to train investigators and economists of the Department's Packers and Stockyards Programs (P&SP) in investigative techniques and case preparation as recommended by the September GAO report on P&SP's investigation of competition cases.

RURAL DEVELOPMENT

OGC also provides legal services to USDA agencies which manage some of America's largest loan portfolios. OGC continues to be heavily involved in debt collection and farm foreclosure actions with many debts going back to the emergency loan program of the 1980's. OGC continues to defend several lawsuits involving hundreds of multifamily housing projects whose owners want to prepay their loans and thereby remove a significant number of low income housing units from rural America. We continue to provide assistance to the Farm Service Agency and other agencies within the Rural Development mission area in implementing the Debt Collection Improvement Act of 1996, specifically involving credit reporting, electronic transfer of funds, offset, and cross servicing. OGC continues to work with the Rural Business-Cooperative Service (RBS) in reviewing most of their cooperative agreements and in improving their cooperative agreement process. We have also been working with RBS' Office of Community Development in the designations of Empowerment Zones and Communities. We are working to resolve an increasing number of major defaults on Business and Industry loans. We also are now working with the Rural Housing Service (RHS) in implementing the Housing Administration Grant Program for Agriculture and Seafood Processor Workers authorized under Public Law 106–387.

Also in the Rural Development area, OGC successfully assisted RHS, which worked in conjunction with the Department of Housing and Urban Development and the Department of Veterans Affairs to streamline the housing loan application process for Native American borrowers on Indian Reservations.

Implementation of the Agriculture Risk Protection Act of 2000 has increased the responsibilities of the Risk Management Agency. Compliance efforts will be enhanced, requiring extensive legal service to develop administrative cases against producers, agents, loss adjusters, and reinsured companies. Millions of dollars are now available for contracting and reimbursement, all of which will require a significant time for legal review. RMA continues to implement new risk management programs developed by the private industry to expand the number of producers covered under that safety net.

We continue to work with Department officials to reduce regulatory burdens, eliminate obsolete or unnecessary regulatory requirements, and streamline regulations, particularly in the areas of rural, farm and utility lending. For example, OGC has worked extensively with FSA over the past year to rewrite all of their Farm Loan Programs loan making and servicing regulations to reduce regulatory burdens where possible and to clearly state agency policy. We are assisting RHS in streamlining and rewriting loan making and servicing regulations for their multiple family housing loan program and their environmental regulations. Our efforts on these long-range projects will continue into fiscal year 2002.

The need for legal services by the rural utility programs of the Rural Utilities Service (RUS) and the Rural Telephone Bank (RTB) increased significantly during fiscal year 2000 as RUS made significant changes in existing financing programs and implemented a number of new programs. The changes included development of regulations changing the basic lending policies in the telecommunications program, the development of fast track financing for certain categories of new generation facilities, the implementation of a loan and grant pilot programs for funding broadband telecommunications facilities in rural areas, and the implementation of a fundamentally new treasury rate loan program. In addition, RUS experienced dramatic growth in its existing lending programs, with the electric program experi-

encing an increase of over a $1 billion targeted to financing new generation capacity.

Substantial legal services continued to be required in the documentation of RUS loans and grants, in servicing and collection issues associated with the $38 billion RUS electric and telecommunications loan portfolio, and with a series of projects that responded to the dynamic changes occurring in the electric and telecommunications industries. The demands for legal services from RUS's power supply financing program have been particularly dramatic as OGC and RUS worked on financing requests for some 25 power supply projects totaling in excess of $2.5 billion. To respond to this growth, OGC helped RUS and a private market lender develop fast track financing for combustion turbines. OGC played a key role in developing the agreement, implementing documents and a programmatic environmental analysis for combustion turbines that will greatly streamline the environmental procedures.

OGC worked closely with RUS on a number of complex projects reflecting the changing electric industry including mergers and alliances, corporate reorganizations, the unbundling of transmission, generation, and distribution services, the restructuring of existing power supply arrangements and the development of the new power marketing arrangements. These projects frequently involve RUS loans and guarantees or lien accommodations of hundreds of millions of dollars and require the development of complex new contractual and security arrangements.

Legal services were required to implement a newly authorized treasury rate loan program targeted to distribution borrowers and to advise and assist RUS on a series of distribution projects reflecting the changing electric industry. Borrowers in a number of states have been undertaking to restructure and rationalize their retail operations through the sale or exchange of facilities and service territory. Among other matters, the projects often required substantial revision in the terms of the RUS required wholesale power contracts, in the security arrangements for RUS loans, and in the governing structure of the surviving entity.

In the area of loan collection activities, OGC provided legal support for a number of projects involving financially troubled borrowers. OGC worked closely with RUS to develop both a corporate and financial restructuring of the borrowers that protected the government's financial and programmatic interests. State retail competition legislation has made this project particularly problematic.

In the RUS telecommunications program, OGC worked closely in the development of a series of new policies and regulations addressing many industry changes including, for example, the definition of adequate telecommunications service, the convergence of technology, and the new structures for delivering telecommunications services. New programs requiring the development of procedures and implementing documents included the weather radio grant program, and the broadband loan and grant pilot program. OGC also provided legal services in connection with the operations of RTB on a range of matters including the privatization of the RTB and the capital structure and the rights of certain classes of stockholders of RTB.

In the RUS water and waste program, legal services were required in connection with a number of cases in litigation in which municipalities and other public bodies seek to condemn or otherwise take water and waste systems financed by RUS notwithstanding federal statutory protections afforded those systems.

NATURAL RESOURCES

In the natural resources area, the Natural Resources Division and OGC Field Offices have been involved in a number of extremely significant undertakings concerning national forest management and natural resources conservation programs. We also assisted two of our client agencies, the Forest Service and the Natural Resources Conservation Service, daily in support of their program missions.

We have provided assistance nationally to the Natural Resources Conservation Service (NRCS) in administering a number of conservation programs, on private or other non-Federal farm, pasture and non-industrial forest lands, including the Highly Erodible Land and Wetland Conservation Programs, Environmental Quality Incentives Program, Wetland Reserve Program, Farmland Protection Program, and the Emergency Watershed Protection Program.

OGC also continues to provide legal counsel to NRCS in the enforcement of the highly erodible land and wetland conservation compliance provisions of the Food Security Act of 1985. OGC assists NRCS in determinations for enforcement and for granting statutorily-authorized variances. OGC defended the agency in administrative appeals and lawsuits challenging the implementation of the conservation provision of the Food Security Act.

Additionally, OGC continues to provide legal services in support of the Wetlands Reserve Program (WRP). As of the end of fiscal year 2000, that program has ac-

quired easements on 935,001 acres. OGC reviews titles for easement acquisitions, as well as restoration contracts.

OGC provided legal counsel to the NRCS in promulgating the agricultural pollution and natural resources conservation elements of the President's Clean Water Action Plan, including the joint EPA/USDA Strategy for Animal Feeding Operations, and in defending those elements in litigation. OGC also assisted NRCS and the Forest Service in reviewing the regulations promulgated by the Environmental Protection Agency under the Clean Water Act for total maximum daily loads of pollutants. The increasing concern and focus on water quality matters, particularly regarding non-point sources of pollution, have required a substantial increase in the level of legal services that we provide to the Forest Service and the Natural Resources Conservation Service.

In the forest management program area, OGC provided litigation support to the Department of Justice in collecting millions of dollars in damages owed the government by defaulting timber sale purchasers. OGC provided assistance to the Department of Justice in the second trial of a case concerning the collection of millions of dollars in damages owed the government. OGC also assisted in limiting contractual damages payable by the client agency for environmentally protective actions. OGC provided legal assistance on the defense of approximately 35 lawsuits challenging timber sale suspensions, modifications and cancellations and alleging the right to takings compensation pursuant to the Fifth Amendment to the U.S. Constitution. OGC provided legal assistance on two matters involving the Sustained Yield Management Act of 1944, a statute that provides the authority for the Secretary to establish sustained yield units on national forest land for the continuous supply of timber and forest products in order to provide for community stability.

The nationally controversial timber sale program in Alaska continues to require significant legal services. Attorneys in both the Washington office and the Juneau field office are assisting with litigation claims of $1.5 billion arising from denial of contract claims on the Alaska Pulp Corporation (APC) 50-year timber sale contract on the Tongass National Forest. APC's aggressive litigation stance required the commitment of significant OGC time and resources to defend against its $1.5 billion claim and the related massive discovery effort. Expert discovery on damages issues is scheduled to begin on June 1, 2001. It is expected that the damages phase of the litigation will be as time/resource-intensive as the liability phase.

OGC provided legal advice and assistance to the Forest Service regarding implementation of stewardship contract pilot projects aimed at harvesting timber while simultaneously advancing forest resource management objectives. Under these stewardship contracts, timber is harvested and contractors provide services designed to achieve land management goals, including road & trail maintenance, watershed restoration and restoration of wildlife habitat.

OGC advised on planning issues with respect to those forest plans currently undergoing revision. The number of revisions should increase. Compliance with the Quincy Library Group pilot project (section 401 of the fiscal year 1999 Interior Appropriations Act, Public Law 105–277) and Sierra Nevada framework also requires continuing OGC advice. OGC also provided and will continue to provide substantial assistance to the Department and the Forest Service related to revision and implementation of the land and resource management planning regulations and various transportation and roads initiatives. In addition, providing preventive law advice to harmonize Endangered Species Act (ESA) compliance with the procedural requirements of the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA) requires continued OGC attention, particularly with respect to taking into account new information and coordinating management decisions for wide-ranging species such as salmon, Indiana bats and lynx. OGC continues to advise on interagency efforts, such as streamlining ESA and NEPA compliance, wildland fire management, and the application of the Migratory Bird Treaty Act. Approximately 100 cases are pending challenging Forest Service decisions on NEPA, NFMA and ESA grounds, and the current trend of increased litigation is expected to continue. OGC assistance is also provided for project administrative appeals, hundreds of which are filed each year.

In real property matters, OGC provides extensive legal assistance to the Forest Service and the Natural Resources Conservation Service. In fiscal year 2000, over $300 million was appropriated to USDA agencies for the acquisition of lands and interests in lands. These land transactions involve considerable legal involvement in contracting, title work and closing. Additionally, legal counsel is provided for the entire spectrum of real estate matters related to the National Forest System including title claims, trespass, appraisal, survey, special use authorizations and similar issues.

OGC provides legal services regarding land title claims involving private parties, Indian tribes and pueblos, and state and local governments. These claims arise variously under treaties, Spanish land grants, and statutory grants by Congress. Last year, OGC participated in the successful settlement of land claims of the Pueblo of Santo Domingo through enactment of Public Law 106–425. Other settlements are in active negotiation.

In July, 2000, the Forest Service completed the single largest land acquisition ever undertaken with funds appropriated from the Land and Water Conservation Fund. The Baca Ranch in the State of New Mexico was acquired for $101 million and designated by Congress as the Valles Caldera National Preserve. The Preserve is a 97,000 acre area surrounded by the Santa Fe National Forest and contains nationally significant scenic, geologic and wildlife resources. OGC handled the complex contractual elements of the acquisition as well as providing counsel for the authorizing legislation. OGC will continue to provide legal advice and assistance to the Valles Caldera Trust related to management of the Preserve.

Additionally, OGC has provided an increasing amount of advice to the Forest Service in its activities related to hydro power projects, in part due to the approximately 200 relicensing proceedings before the Federal Energy Regulatory Commission (FERC) occurring in the next 10 years for projects located on National Forest System (NFS) lands. OGC is assisting the Forest Service in its efforts to obtain fair market value for the use of national forest lands for these hydro power projects.

In the minerals area, OGC provided extensive legal services to the Forest Service in identifying needed changes to the regulations governing the mining of metals on the tens of millions of acres of land administered by that agency which are subject to the United States mining laws. OGC also continued to devote significant resources to defending an administrative challenge to the validity of numerous mining claims in a National Recreation Area (NRA) and to defending a related lawsuit alleging that a statute effected a taking of related mining claims in the NRA. OGC also furnished substantial assistance on issues pertaining to the United States mining and mineral leasing laws arising from a rule which would bar the construction or reconstruction of roads in inventoried roadless areas.

In Congressional matters, OGC provided extensive assistance in drafting legislation relating to the Administration's fiscal year 2001 budget for the Forest Service, including the HIRE proposal to establish a mandatory appropriation to fund ecosystem restoration projects and to create jobs for local workers. OGC reviewed and analyzed numerous provisions of the 2001 Department of the Interior and Related Agencies Appropriations Act, including Title IV funding for hazardous fuel reduction activities. OGC furnished substantial legal assistance in drafting, reviewing, and implementing legislation stabilizing payments to states by decoupling them from forest receipts.

In the recreation area, OGC continued to provide extensive assistance to the Department of Justice in the successful defense of the Forest Service's noncommercial group use regulation. Nine federal district courts and four federal courts of appeals have upheld the constitutionality of the regulation under the First Amendment. OGC also provided legal assistance in the development of a final cost recovery rule for the special uses program. Additionally, OGC analyzed the treatment of broadcasting revenue associated with the use of NFS lands for the 2002 Winter Olympics under the new Ski Area Permit Fee Act; developed a policy for authorizing target ranges on NFS lands that addresses public safety and resource protection; and crafted national agency policy on indemnification, insurance, and other liability issues arising in connection with the special uses program. OGC is also coordinating all types of legal issues and litigation pertaining to management of off-highway vehicle use on NFS lands.

OGC provided substantial assistance to the Department on issues relating to compliance with applicable pollution control laws. In particular, OGC assisted the USDA Hazardous Materials Policy Council and the USDA Hazardous Materials Management Group in carrying out the hazardous materials management program. In addition, OGC provided assistance and advice to the Department and the Forest Service on the cleanup of hazardous materials sites on NFS lands. OGC represented the Forest Service, along with the Department of Justice, in negotiations with nonfederal parties responsible for the cleanup of contamination on National Forest System lands. OGC also played a substantial role in advising the Department on compliance with applicable pollution control standards, including negotiating compliance agreements with the United States Environmental Protection Agency (EPA) and State environmental enforcement agencies. OGC also provided the Department with advice to protect the Department's interests regarding hazardous materials issues which arose in the context of land transfers and acquisitions. Finally, OGC provided

significant legal services in connection with pollution control legislative proposals, including Superfund Reauthorization.

GENERAL LAW DIVISION

The General Law Division (GLD)provided extensive legal services to the FS in determining the consistency of mineral development with statutes governing millions of acres of land acquired under New Deal programs, successfully challenging the validity of mining claims for more than 1,000 acres of land in a National Recreation Area, and in determining a company's right to dispose of mining waste on NFS lands.

As the new Administration and Congress engage in new initiatives to make the delivery of services more efficient, streamlined, and customer friendly, we anticipate greater demands in the division. These range from providing legal services regarding personnel and labor matters, the Freedom of Information Act and the Privacy Act, and debt collection initiatives; to providing legal support for creative approaches for conducting Department activities. GLD has been called upon with increasing frequency, to address, a number of issues relating to the time availability of funds, augmentation of appropriations, compliance with the Antideficiency Act, and the transfer of appropriations. At the same time, GLD is fielding a steady stream of requests for legal advice in such fiscal matters as the use of appropriated funds for travel; leasing of real property; advisory and assistance services; personal services; and meals, refreshments, and miscellaneous items. GLD will continue to advise USDA agencies on the proper use of instruments (contracts, grants, cooperative agreements, and memoranda of understanding), and the terms and conditions necessary to document agency transactions and fiscal obligations.

We anticipate additional demand on GLD resources arising out of requests to assist USDA agencies, especially the research agencies, in working with the Congress on the upcoming Farm Bill. In addition, GLD will provide assistance to the Office of the Chief Financial Officer on its implementation of the Federal Activities Inventory Reform Act of 1999, in the performance of reviews of Government activities under OMB Circular A–76, and in the implementation of the Federal Financial Assistance Management Improvement Act of 1999. GLD also will continue to assist the Office of Inspector General (OIG) and USDA program agencies in resolving legal issues arising out of OIG audits and investigations.

With regard to the procurement of property and services, GLD will devote substantial resources to assist the Chief Information Officer to improve information technology management in the Department, with some emphasis in the areas of computer privacy and cyber-security. GLD will continue to provide legal support to all USDA agencies in procurement and property matters such as complying with the numerous socioeconomic policies and the competition requirements applicable to orders against other agency or government-wide contracts. GLD will work with contracting officials to support the research, development, acquisition and use of bio-based products, including alternative fuels. Also, GLD will continue to provide an enhanced level of legal representation of USDA agencies in protests filed with the General Accounting Office. GLD also will continue to represent USDA agencies in contract claims brought before the Agriculture Board of Contract Appeals and serve as agency counsel assisting the Department of Justice in contract claims before Federal courts. In property matters, there has been an increase in the requests for GLD assistance concerning the responsibilities and costs to the Department for the operation and maintenance of its facilities, security issues, workplace violence, and bio-terrorism and other emergency preparedness plans.

GLD will continue to provide a sustained rate of legal services to the National Appeals Division (NAD) regarding procedural, Equal Access to Justice Act (EAJA) and general administrative law matters. It provides information to the field and coordination of OGC litigation nationwide and assists the Department of Justice in cases seeking judicial review of NAD decisions in Federal courts. Legal issues include those arising from the NAD organic statute and NAD regulations, such as exhaustion of administrative remedies, jurisdiction of the district courts, implementation and effective dates of NAD determinations, and applicability of other laws, such as EAJA and the Administrative Procedure Act, to NAD proceedings.

GLD will continue to provide ongoing advice to the research, education, and economics (REE) agencies of USDA with respect to the implementation and administration of their programs and activities, including both competitive and non-competitive assistance programs. This will involve the review of Federal Register notices, grant solicitations, and rulemakings, as well as the issuance of legal opinions on such issues as the scope of statutory authorities and eligibility requirements. GLD will

also assist REE with intellectual property issues associated with bringing the benefits of research results to the public.

GLD will continue to provide advice to USDA agencies regarding affirmative action and minority preference programs as the law and Government regulations, particularly in the procurement sector, continue to evolve in this area. It also will continue to provide advice relating to outreach to disaffected groups, particularly the outreach to socially disadvantaged farmers.

With regard to general litigation, GLD anticipates that more reverse Freedom of Information Act (FOIA) cases involving exemption b(6) will be filed. GLD has defended several suits in which the Department is sued in one jurisdiction to prevent the release of information claimed to be exempt as privacy-protected while at the same time the Department is sued, or is under threat of a suit, in another jurisdiction for failing to release the same or similar information. GLD is also defending increasing numbers of FOIA suits in which there has been no response to an initial FOIA request or there has been no response to a FOIA appeal. These suits are difficult because of the need to gather and review documents which have not been reviewed by GLD at an earlier stage and to do so within the time constraints imposed by litigation. GLD anticipates that these trends will continue and significant legal resources will be required to defend these suits.

GLD will continue to advise agencies regarding ethics, personnel, benefits, and other matters. However, we anticipate devoting more legal resources to these areas in the next year to assist new appointees in the Department.

LEGISLATION DIVISION

OGC continues to provide legislative drafting and related assistance to the Department and Congress on major legislative activities that involve the Department and its programs. Extensive assistance was provided to Departmental policy officials and Congressional staffs in drafting and analyzing various legislative proposals recently enacted by Congress, including crop insurance reform and plant protection legislation enacted as part of the Agricultural Risk Protection Act (Public Law 106–224) and disaster relief for farmers and appropriations provisions contained in Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act, 2001 (Public Law 106–387) and in the Consolidated Appropriations Act, 2001 (Public Law 106–554). In addition, we are planning to participate in the preparation of legislation in support of the President's fiscal year 2002 budget request for the Department.

LITIGATION DIVISION

Litigation Division attorneys, in cooperation with attorneys from DOJ and other divisions in OGC, presented USDA's position in appellate courts. These efforts led to the D.C. Circuit Court upholding a decision of the Secretary to revoke a license issued under the Perishable Agricultural Commodities Act after the licensee engaged in commercial bribery. The Fifth Circuit Court, sitting en banc, found that a district court exceeded its jurisdiction by entertaining a generalized challenge to management practices in four National Forests. The D.C. Circuit held that the Forest Service could impose conditions on a hydroelectric power license issued by the Federal Energy Regulatory Commission which included a plan to promote the growth of wild rice in lakes in a National Forest. The U.S. Supreme Court is hearing a case challenging assessments charged against mushroom producers which fund an advertising program designed to increase consumption of mushrooms.

CIVIL RIGHTS

The Secretary wants to ensure that all of our customers and employees are treated with dignity and respect, and are afforded equal employment opportunity (EEO) and equal access to all USDA programs. Critical to the achievement of these goals was the creation, in 1998, of the Civil Rights Division (CRD) within OGC. Staffed with attorneys with specialized expertise in civil rights and EEO law, CRD is charged with providing legal services to the Secretary and all agencies of the Department on civil rights and EEO issues.

CRD has maintained a stellar litigation record while also providing prompt and sound legal advice to our client agencies. However, as CRD's reputation continues to improve, the demands on the office only increase. CRD's litigation duties currently include 7 program class actions and 10 employment class actions, each at different stages in the litigation process. The requested damages in these class actions could cost USDA upwards of $21.0 billion.

CRD represents USDA in the defense of six class action program complaints currently pending in Federal district court. CRD also played a critical role in the settle-

ment of the Pigford/Brewington litigation. The settlement helped the Department to reinvigorate its efforts to become a Federal civil rights leader in the 21st century. CRD has taken the leading role in ensuring that USDA meets its commitments under the Pigford/Brewington consent decree, particularly with respect to the production of relevant documents and necessary legal analyses related to each claim filed pursuant to the consent decree, as well as ensuring the Department's compliance with adjudicator and arbitrator decisions. CRD is working with FSA and DOJ to develop timely and appropriate Government responses to claims filed by eligible farmers.

Key to settlement of the Pigford and Brewington cases was the 1998 enactment of the waiver of various statutes of limitations, that allows farmers with long-standing discrimination complaints to have their claims finally heard. CRD and OGC field offices are representing the Department in the 60 cases in which a hearing has been requested. With respect to farmer discrimination claims not covered by the Pigford and Brewington settlement, CRD works with the USDA Office of Civil Rights (CR) to ensure that all claims receive expeditious and fair consideration, within the bounds set by applicable law.

With respect to the ongoing implementation of the Pigford consent decree, we anticipate that several thousand additional Track A claims will be filed. CRD attorneys must review the agency response on each claim prior to submission to the adjudicator. In addition, several hundred more Track B hearings will take place. CRD attorneys must assist the Department of Justice (DOJ) attorneys in their representation of the agency; including assisting DOJ with document discovery, identification of similarly situated white farmers, and responses to interrogatories. Furthermore, CRD will have the primary Departmental role in the Monitor review process. All claimants can petition the Monitor to reevaluate their claims and CRD will need to file a response to each petition. We anticipate that most of the roughly 8,000 claimants whose claims were denied may seek Monitor review. Thus, CRD will need to file a written response to each of these petitions. In addition, for cases in which the government seeks Monitor review of a claim, CRD will prepare the Government's petitions for Monitor review. We anticipate several hundred individual petitions may be filed by the Government.

CRD also represents USDA in the defense of six class action employment complaints pending before the Equal Employment Opportunity Commission (EEOC). To date, only one of these complaints has been certified by EEOC to proceed as a class action. In addition, CRD is representing USDA in the defense of two additional class action employment complaints currently on appeal before EEOC's Office of Federal Operations. In recent years, CRD has settled two employment class action complaints under which individual complainants are currently pursuing their claims.

Recent years have seen a drastic increase in the demand for CRD's litigation services in a number of formal individual complaints filed by USDA employees with the EEOC. For example, 783 formal complaints were filed with USDA during fiscal year 2000, and there are nearly 1,872 active EEO cases pending throughout USDA. CRD continues to carry a full workload of complex and politically sensitive individual EEO cases involving either issues of first impression or disputes over positions at the highest levels within USDA. CRD litigates these cases on behalf of the Department without the assistance of DOJ. These individual cases require constant attention, travel across the country, and interaction with senior management officials throughout USDA.

In addition to its primary litigation responsibilities, CRD continues to assist DOJ in the litigation of numerous individual civil rights cases in both the employment and program areas pending in Federal district court. The Assistant U.S. Attorneys (AUSAs) and/or DOJ attorneys serve as lead counsel, but they are requiring an ever-increasing amount of litigation support from CRD, including draft answers, full litigation reports, dispositive motions, discovery responses, witness preparation, and deposition and trial participation.

To address other employment issues, CRD will intensify its efforts to provide training and technical assistance to OGC field attorneys and to Department officials, civil rights directors, and employee relations specialists. The goal is to identify and address EEO obstacles before they elevate into litigation. Where issues are identified, CRD will bring the concerns to the attention of appropriate Department officials, with legal analysis and recommendations for resolution.

FISCAL YEAR 2002 BUDGET REQUEST

For fiscal year 2002, OGC is requesting an increase of $1,116,000 is for the anticipated fiscal year 2002 pay raise. This critically important increase is needed to support and maintain current staffing levels to meet the current and projected in-

creased demand in delivering legal advice, training, appeal and litigation legal services to agencies. Approximately 92 percent of OGC's budget is in support of personnel compensation, which leaves no flexibility for absorbing pay cost increases. Unlike large program agencies which have more flexibility concerning budget implementation, OGC can only absorb this increase by reducing staff.

CLOSING

That concludes my statement. We very much appreciate the support this Subcommittee has given us in the past. Thank You.

OFFICE OF THE CHIEF FINANCIAL OFFICER

PREPARED STATEMENT OF PATRICIA E. HEALY, ACTING CHIEF FINANCIAL OFFICER

Mr. Chairman and members of the Subcommittee, I am pleased to present the fiscal year 2002 budget request for the Office of the Chief Financial Officer (OCFO) and the Department's Working Capital Fund (WCF).

OCFO includes a headquarters staff responsible for leadership and oversight of USDA financial management, and a staff in New Orleans, Louisiana, which processes payroll and administrative data for more than 40 departments, independent agencies, and congressional entities and provides the record-keeping services for the Government-wide Thrift Savings Plan (TSP).

Throughout fiscal years 2000 and 2001, USDA has continued to make significant progress towards improving its financial credibility and accountability. The following examples give you a glimpse of our progress:

Financial Statements.—For the second consecutive year, USDA submitted its consolidated financial statements to the Office of Management and Budget (OMB) by the March 1 deadline. We have also been working on automating the statement preparation process to improve efficiency and consistency of data processing. USDA has six stand-alone audits, three of which—the Food and Nutrition Service (FNS); the Rural Telephone Bank; and the Federal Crop Insurance Corporation—received unqualified or "clean" audit opinions. Of the remaining three stand-alone audits—Rural Development (RD), the Forest Service (FS), and Commodity Credit Corporation (CCC)—significant progress has been made in improving their audit results. OCFO is working closely with RD, Farm Service Agency (FSA) and CCC on a credit reform working group, comprised of these agencies, the Office of Inspector General, and the General Accounting Office (GAO) as an advisor, to address the credit reform issues keeping these agencies from a clean opinion. We are also working closely with the Forest Service on its plans for financial management improvements. We are hopeful that these efforts will result in an improved USDA consolidated financial statement audit opinion for fiscal year 2001.

Debt Collection.—USDA debt constitutes about 37 percent of all non-tax debt owed to the Federal Government. The $104.8 billion portfolio includes loans for rural housing units, rural utilities, farm operating and disaster assistance, international export and development, and rural business enterprises. During fiscal year 2000, USDA collected $188.0 million in delinquent debt through Treasury's Administrative Offset Program and other debt collection tools. This figure represents a 38 percent increase over the $136.2 million collected in fiscal year 1999, a 100 percent increase over the $93.9 million collected in fiscal year 1998, and a 163 percent increase over the $71.5 million collected in fiscal year 1997. In addition, the fiscal year 2000 delinquent receivables totaled $6.3 billion, a decrease of nearly 16 percent from the $7.5 billion collected in fiscal year 1997. Collections of delinquent USDA debt have almost tripled (from $63.2 million to $188.0 million) since 1996 as a result of the Debt Collection Improvement Act of 1996 (DCIA) and a greater reliance on referring debts for Treasury offset, cross-servicing, Internal Revenue Service (IRS) 1099 reporting, and internal/external offset programs.

Integrated Financial Management System.—USDA continues to make significant progress in implementing the Foundation Financial Information System (FFIS), the cornerstone of financial management and administrative systems improvements at USDA. The success of USDA in implementing the system according to the aggressive schedule that we committed to in fiscal year 1999 led us to accelerate the implementation schedule for fiscal year 2000. As a result, four major agencies, the Animal and Plant Health Inspection Service (APHIS), the Rural Development (RD) agencies, the Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS), were all implemented on October 1, 2000. Three of these agencies were implemented ahead of schedule. Work is on schedule to implement eight agencies on October 1, 2001. These are: Agricultural Research Service (ARS); Coopera-

tive State Research, Education, and Extension Service (CSREES); Economic Research Service (ERS); National Agricultural Statistics Service (NASS); Agricultural Marketing Service (AMS); Food and Nutrition Service (FNS); the Office of the Inspector General (OIG); and Departmental Administration (DA) and Staff Offices, including the Working Capital Fund (WCF). Currently 78 percent of the USDA workforce is served by FFIS. Final implementation will occur on October 1, 2002 with Grain Inspection, Packers & Stockyards Administration (GIPSA) and Foreign Agricultural Service (FAS).

Government Performance and Results Act (GPRA).—In fiscal year 2000, USDA issued a restructured strategic plan for fiscal year 2000–2005 focused on five overall USDA goals that cross organizational lines in the Department. The OCFO led the Department-wide Planning Team that developed the new plan using a corporate management approach to strategic planning. As a result, the previous strategic plan, which consisted of 30 different agency plans, has been replaced by a streamlined plan written in plain language. The strategic plan, as well as the fiscal year 2002 performance plan, reflect a corporate approach to performance management.

National Finance Center.—The OCFO's National Finance Center (NFC) in New Orleans processes payroll for approximately 460,000 employees in the Federal civilian workforce and provides record-keeping services for the $92 billion Thrift Savings Plan, a 401(k) type plan, for 2.5 million Federal employees. NFC is currently working with the Federal Retirement Thrift Investment Board to add the Small Capitalization Stock Investment (S) Fund and the International Stock Investment (I) Fund to the current record-keeping system, maintained by NFC, effective May 1, 2001.

These examples represent progress that will continue only if we receive the necessary resources to establish the framework in which we will lead, direct, and coordinate USDA's financial management priorities to satisfy congressional mandates and provide the Secretary, the Congress, and program managers with credible financial information on which they can base decisions.

FISCAL YEAR 2002 BUDGET REQUEST

Mr. Chairman, OCFO is requesting a fiscal year 2002 budget of $5,335,000, an increase of $175,000 over fiscal year 2001. The OCFO staff funded through the appropriation has little flexibility to absorb pay and other cost increases. The requested pay cost increase of $175,000 is needed to maintain the current staff level for leadership and oversight of financial management at USDA. The maintenance of this budget level is critical if we are to devote the necessary staff and resources to work on the following priorities:

Lead the Corporate Administrative/Financial Systems Strategy Implementation.—In fiscal year 2000, the Chief Financial Officer, working with the Chief Information Officer and Assistant Secretary for Administration, led the Corporate Administrative Systems Executive Committee tasked with developing a corporate strategy for administrative/financial systems. The Committee met extensively over a six-month period to examine the eight corporate systems identified as most critical for the successful operation of USDA. The Committee evaluated each system component, the criticality of the system to the Department's overall administrative/financial operations, and the urgency of the need to have the functionality implemented. The systems in the corporate strategy and their priorities for implementation are: accounting/budget execution, telecommunications infrastructure/security, procurement; payroll, human resources, travel, property, and budget formulation.

These systems require the OCFO to work with the agencies to review their current business practices to ensure that these systems will produce accurate, timely and reliable data. Currently, program managers, policy officials, members of Congress, and other stakeholders do not always have the reliable and timely information needed to support essential program and financial management decisions, as well as develop, monitor, and report on performance plans and their goals and objectives, as required by GPRA.

The fundamental objective is to complete the necessary implementation of these systems within five years. A constraint in our ability to implement the corporate strategy has been the availability of funding. We are grateful to the Appropriations Committees of the Senate and House for the language provided in last year's bill allowing the Secretary of Agriculture, with the Committees' approval, to transfer unobligated balances of appropriated funds to the Working Capital Fund for the acquisition of plant and capital equipment necessary for the delivery of financial, administrative, and information technology services of primary benefit to the agencies of the Department of Agriculture. We will be providing a plan to the Committees shortly to seek this approval. This plan will address our resource requirements for the corporate strategy.

Implement Information Infrastructure.—Consistent with the corporate systems strategy, OCFO will successfully complete the implementation of the Foundation Financial Information System (FFIS) on schedule. As its name implies, FFIS is intended to be the foundation for all the corporate systems initiatives. When FFIS is linked to other critical corporate systems, USDA will be able to obtain the corporate information required to more effectively manage operations. When fully implemented, FFIS will include integrated budget execution and accounting as well as a financial data warehouse with a powerful reporting capability. It will also include a tool to help the Department reconcile its cash accounts to Treasury records, a major audit finding. The reliable, accurate data provided in FFIS records, coupled with the powerful reporting tool, will increase USDA's ability to monitor operations and report results.

Improving the USDA Audit Opinion.—In order to lead USDA to a clean opinion, we intend to focus our efforts on the USDA component agencies' audit opinions on their stand-alone statements. In addition, OCFO will work with all USDA agencies to ensure they address overall improvements in financial management and data integrity. We will continue to focus on improvements in four areas—implementation of the Federal Credit Reform Act of 1990, reconciling Fund Balances with Treasury accounts, addressing weaknesses in the Forest Service's financial accounting and reporting, and correcting material internal control weaknesses as outlined in auditors' reports. USDA has made significant progress in these areas in the past two years. With sufficient resources and focus by all management layers throughout USDA, we expect to see the results in improved and sustainable financial management processes with, as a by-product, an improved audit opinion.

Enhancing and Improving NFC Operations.—The National Finance Center (NFC) is a centralized administrative/financial processing and automated information systems operation supporting USDA and Government-wide operations. In both fiscal year 2001 and fiscal year 2002, NFC will expand its role in support of the Federal Retirement Thrift Investment Board with the introduction of additional investment options and the implementation of the military into the Thrift Savings Plan. Additionally, NFC has been selected to develop and pilot a reconciliation process for the Office of Personnel Management to reconcile Federal employee health benefits subscriptions.

In fiscal year 2002, NFC will transition to support the implementation of the USDA's FFIS, while using activity-based costing as a mechanism for developing a new process for direct billings to clients. Additionally, the NFC will continue to stabilize the processes implemented to support cash reconciliation and strengthen its capabilities in that area. These initiatives will provide streamlining of processes and will institutionalize improved financial management practices to ensure that the OCFO's NFC operation meets the challenges of Government financial management in the 21st century.

WORKING CAPITAL FUND

As we have noted in the past for the Committee, the Working Capital Fund serves as the Department's primary financing mechanism for centrally managed financial, administrative, and information technology services. It supports more than 20 distinct activity centers across five Department-level organizations, and does so effectively and efficiently as evidenced by the volume of service we provide to our USDA agencies and the high demand for our WCF services from agencies outside of USDA. As mentioned previously, the Congress provided the WCF with increased flexibility as part of the fiscal year 2001 appropriations legislation enacted last fall. The Secretary was granted the authority to transfer unobligated fund balances for the purpose of funding through the WCF, acquisition of plant and capital equipment necessary for the delivery of financial, administrative, and information technology services. No funds will be transferred under this authority until a proposal is presented to and approval granted by both Committees on Appropriations. We are working to prepare a comprehensive proposal to use funds under this authority and look forward to discussing the issue further with you and your staffs.

The Congress has provided us the means to address other needs in the corporate area as well. Fiscal year 2001 appropriations language granted USDA the authority to use proceeds from purchase card rebates to invest in systems and processes of general benefit to the Department. We are using this authority to reinvest in procurement and related systems. In fiscal year 2002, pilot projects to determine the best approach and system to employ for procurement services will be partially funded through these rebates. While the rebates will only fund part of our needs (approximately $3 million in fiscal year 2001), we appreciate the cooperation of the Congress in using these rebates, which arise from the use of the procurement credit

card, to fund our investment efforts, especially those of the procurement system. I hope that the Congress will renew both the language to allow transfers of unobligated balances and the language to allow transfers of rebate proceeds so that we may continue to invest in these financial and administrative systems which are so critical to USDA operations in the future.

Concerning our recurring operations, I am pleased to report that we are continuing to deliver timely, quality service to our USDA agencies and non-USDA clients in a cost-effective manner. We are especially proud of the cooperative efforts of WCF management, activity managers, and agencies represented on our WCF Executive Committee in holding down costs of service.

Mr. Chairman, we have a shared responsibility to ensure that we can meet the needs of our agencies as they address the needs of the American farmer and agricultural community, and ensure financial accountability and effectiveness. I look forward to working with you and the members of this Committee to ensure that those needs are met. The resource estimate that I have presented to you is our commitment to fulfilling our responsibilities. Thank you, Mr. Chairman. I welcome any questions the Committee might have.

NATIONAL AGRICULTURAL STATISTICS SERVICE

PREPARED STATEMENT OF R. RONALD BOSECKER, ADMINISTRATOR

Mr. Chairman and members of the Committee, I appreciate the opportunity to submit a statement for this Committee's consideration in support of the fiscal year 2002 budget request for the National Agricultural Statistics Service (NASS). This Agency now conducts the Census of Agriculture which was begun in 1840, and the agricultural statistics program created in 1842. Both programs support the basic mission of NASS, which is to provide factual information for and about the Nation's food and agricultural industry.

As American farms and ranches have progressed to making greater use of agricultural science and technology, the need for more detailed information has increased. The periodic surveys and censuses conducted by NASS contribute significantly to the overall information base for agricultural producers, handlers, processors, wholesalers, retailers, and ultimately, consumers. Voids in relevant, timely, accurate data contribute to wasteful inefficiencies throughout the entire production and marketing system.

The most critical complaints received by NASS occur when there is an absence or shortage of official data available for a commodity, and therefore that segment of agriculture is forced to operate with insufficient information. Recent energy crises have focused immediate attention on the need for additional energy costs and supply data to measure the effect, and potential effect, on agriculture. NASS is cooperating with the Office of Energy and New Uses (USDA, Office of the Chief Economist) and the Energy Information Agency (U.S. Department of Energy) to collect data related to the energy supply and price problems and the effect on agricultural production and costs. Environmental concerns have meant that entirely new surveys are needed to accurately measure the chemicals used by the food and fiber industry. The globalization of agricultural commodity markets also increases the demand for relevant, accurate, timely, and impartial statistical information to assist those who sell U.S. agricultural commodities worldwide. For example, information concerning genetically engineered crops and crop varieties will enable the United States to better compete in the world market.

The crop, livestock, and other related statistics are provided by NASS throughout the year, in cooperation with each State Department of Agriculture. This program, which began in 1917, has served the agricultural industry well and is often cited by others as an excellent model of successful State-Federal cooperation. The addition of the Census of Agriculture has strengthened NASS's partnership with its State cooperators. This joint State-Federal program helps meet State and national data needs while minimizing overall costs by consolidating both staff and resources, eliminating duplication of effort, and reducing the reporting burden on the Nation's farm and ranch operators. The success of this partnership was demonstrated when NASS, through its State-Federal cooperation, was able to complete the 1997 Census of Agriculture in almost half the time of previous censuses, increase the total response, and, through the use of a toll-free number, better respond to questions from farmers and ranchers completing the census questionnaires. NASS's 46 field offices, which cover all 50 States (New England States are combined) and Puerto Rico, support the five goals and outcomes in the Research, Education, and Economics (REE)

mission area strategic plan by providing statistical information that serves national, State, and local data needs.

NASS statistics contribute to providing fair markets where buyers and sellers alike have access to the same official statistics. This prevents markets from being unduly influenced by "inside" information which might unfairly affect market prices for the gain of an individual market participant.

With the enactment of the Federal Agriculture Improvement and Reform Act of 1996 and the pending work on the farm bill, the demand for agricultural statistics has increased as producers rely heavily on market information to make production decisions. Empirical evidence indicates that an increase in information improves the efficiency of commodity markets. Information on the competitiveness of our Nation's agricultural industry will become increasingly important as producers rely more on the world market for their income.

NASS's agricultural statistics are used throughout the agricultural sector to evaluate supplies and determine competitive prices for world marketing of U.S. commodities, which directly supports Goal 1 of the REE Strategic Plan: Ensure Americans an agricultural system that is highly competitive in the global market.

Through new technology, the products produced in the United States are changing rapidly. This also means that the agricultural statistics program must be dynamic and able to respond to the demand for coverage of newly emerging products. For example, genetic engineering technology is producing new commodity varieties, such as BT corn and cotton, and Roundup Ready soybeans. NASS has responded to data user requests for information on genetically modified crops to help assess the magnitude and impact of these new varieties.

Not only are NASS statistical reports important to assess the current supply of and demand for agricultural commodities, but they are also extremely valuable to farm organizations, commodity groups, and public officials who analyze agricultural policy, foreign trade, construction, and environmental programs, research, rural development, and many other activities. NASS numbers are scrutinized very closely by producers, agribusinesses, industry analysts, economists, investors, as well as government policy makers. As a result of their analysis, major decisions are made that affect the Nation's agricultural economy.

All reports issued by NASS's Agricultural Statistics Board are made available to the public at previously announced release times to ensure that everyone is given equal access to the information. NASS has been a leader among Federal agencies in providing electronic access to information. All of NASS's national statistical reports and data products, including graphics, are available on the Internet, as well as in printed form. Customers are able to electronically subscribe to NASS reports by clicking on the appropriate release. A summary of NASS and other USDA statistical data are produced annually in USDA's Agricultural Statistics, available on the Internet through the NASS Home Page, on CD–ROM disc, or in hard copy. Each of NASS's 46 field offices have Home Pages on the Internet, which provide access to special statistical reports and information on current local commodity conditions and production.

Beginning in fiscal year 1997, NASS received funding directly for the Census of Agriculture which is conducted every 5 years. The transfer of the responsibility for the Census of Agriculture to USDA streamlines Federal agricultural data collection activities and has improved the efficiency, timeliness, and quality of the census data.

Statistical research is conducted to improve methods and techniques used in collecting and processing agricultural data. This research is directed toward providing higher quality census and survey data with less burden to respondents, producing more accurate and timely statistics to data users, and increasing the efficiency of the entire process. For example, NASS has been a leader in the research and development of satellite imagery to improve agricultural statistics. The NASS statistical research program strives to improve methods and techniques for obtaining agricultural statistics with an acceptable level of accuracy. The growing diversity and specialization of the Nation's farm operations have greatly complicated procedures for producing accurate agricultural statistics. Development of new sampling and survey methodology, along with intensive use of telephone and face-to-face contacts and computer technology enable NASS to keep pace with an increasingly complex agricultural industry. Considerable new research will be directed at improving the 2002 Census of Agriculture.

Major Activities of the National Agricultural Statistics Service (NASS) The primary activities of NASS are to conduct periodic surveys each year and the Census of Agriculture every 5 years to meet the current data needs of the agricultural industry. The periodic surveys include the collection, summarization, analysis, and publication of reliable agricultural forecasts and estimates. Farmers, ranchers, and

agribusinesses voluntarily respond to a series of nationwide surveys about crops, livestock, prices, chemical use and other agricultural activities each year. Periodic surveys are conducted during the growing season to measure the impact weather, pests, and other factors have on crop production. Frequent surveys are also needed for food products that are perishable. Many crop surveys are supplemented by actual field observations in which various plant counts and measurements are made. Administrative data from other State and USDA agencies, as well as data on imports and exports, are thoroughly analyzed and utilized as appropriate. NASS prepares estimates for over 120 crops and 45 livestock items which are published annually in almost 400 separate reports.

The Census of Agriculture provides national, State, and county data for the United States on the agricultural economy every 5 years, including: number of farms, land use, production expenses, farm product values, value of land and buildings, farm size and characteristics of farm operators, market value of agricultural production sold, acreage of major crops, inventory of livestock and poultry, and farm irrigation practices. The Census of Agriculture is the only source for this information on a local level which is extremely important to the agricultural community. Detailed information at the county level helps agricultural organizations, suppliers, handlers, processors, and wholesalers and retailers better plan their operations. Important demographic information supplied by the Census of Agriculture also provides a very valuable data base for developing public policy for rural areas.

Nearly two-thirds of NASS's staff are located in the 46 field offices; 25 of these offices are collocated with State Departments of Agriculture or land-grant universities. NASS's State Statistical Offices issue approximately 9,000 different reports each year and maintain Internet Home Pages to electronically provide their State information to the public.

NASS has developed a broad environmental statistics program under the Department's water quality and food safety programs. Until 1991, there was a complete void in the availability of reliable pesticide usage data. Therefore, in 1991 NASS cooperated with other USDA agencies, the Environmental Protection Agency (EPA), and the Food and Drug Administration, to implement comprehensive chemical usage surveys that collect data on certain crops in selected States. EPA uses the state and national level actual survey chemical data, rather than worst case scenarios, in the quantitative usage analysis for a chemical product's risk assessment. Beginning in fiscal year 1997, NASS also began survey programs to acquire more information on Integrated Pest Management (IPM), additional farm pesticide uses, and post-harvest application of pesticides and other chemicals applied to commodities after leaving the farm. These programs have resulted in significant new chemical use data, which are important additions to the data base. Surveys conducted in cooperation with the Economic Research Service also collect detailed economic and farming practice information to analyze the productivity and the profitability of different levels of chemical use. American farms and ranches manage half the land mass in the United States, underscoring the value of complete and accurate statistics on chemical use and farming practices to effectively address public concerns about the environmental effects of agricultural production. NASS's chemical use survey programs support both Goals 2 and 4 of the REE Strategic Plan which relate to ensuring an adequate food and fiber supply and the promotion of food safety, and enhancing the quality of the environment.

NASS conducts a number of special surveys as well as provides consulting services for many USDA agencies and other Federal, State, and private agencies or organizations on a cost-reimbursable basis. Consulting services include assistance with survey methodology, questionnaire and sample design, information resource management, and statistical analysis. NASS has been very active in assisting USDA agencies in programs that monitor nutrition, food safety, environmental quality, and customer satisfaction. In cooperation with State Departments of Agriculture, land-grant universities, and industry groups, NASS conducted 111 special surveys in fiscal year 2000 covering a wide range of issues such as farm injury, nursery and horticulture, farm finance, fruits and nuts, vegetables, and cropping practices.

NASS provides technical assistance and training to improve agricultural survey programs in other countries in cooperation with other Government agencies on a cost-reimbursable basis. NASS's international programs focus on developing countries, such as those in Asia, Africa, and Central and South America, as well as emerging market countries in Eastern Europe. Accurate information is essential in these countries for the orderly marketing of farm products. NASS works directly with countries undergoing the transition from centrally-planned to market economies by assisting them in applying modern statistical methodology, including sample survey techniques. This past year, NASS provided assistance to China, Ecuador, Ethiopia, Kazakhstan, Mexico, Nicaragua, Russia, South Africa, Ukraine, and Ven-

ezuela and received approximately $1.1 million in reimbursements for these services.

NASS annually seeks input on improvements and priorities from the public through: displays at major commodity meetings, data user meetings with representatives from agribusinesses and commodity groups, special briefings for agricultural leaders during the release of major reports, and through numerous individual contacts, especially those made at the grass roots level through NASS's 46 field offices. As a result of these activities, the Agency has made adjustments to its agricultural statistics program, published reports, and electronic access capabilities to better meet the statistical needs of customers and stakeholders.

FISCAL YEAR 2002 PLANS

The fiscal year 2002 budget request is for $113,786,000. This is a net increase of $13,236,000 from the fiscal year 2001 current estimate.

The fiscal year 2002 request includes increases for cyclical activities associated with the Census of Agriculture ($10,000,000), improvements to computer security to assure the integrity of market sensitive data prior to official release ($500,000), and funding for increased pay costs ($2,736,000).

A net increase of $10,000,000 and 51 staff-years for the Census of Agriculture.

The 2002 Census of Agriculture budget request is for $25,000,000. This includes an increase of $10,000,000 and 51 staff-years for increased activities associated with the 2002 Census of Agriculture. The funding increase addresses necessary preparations for the 2002 Census of Agriculture, which will be mailed in December 2002. This is the third year in a five-year funding cycle for the 2002 Census. Preparations include specific list building activities; formulation of data collection plans targeted for American Indian and minority farm operators; equipment installation and testing; census mail list development; printing over three million questionnaires, letters, and reference materials; completion of final specifications, development, and testing procedures for data collection, processing, and analysis phases of the census; completion of publicity and outreach plans and printing of materials; and determination of final census data products design, mix, and production schedules. NASS will also work to improve information technology infrastructure for the field offices to ensure maximum efficiency.

An increase of $500,000 is requested for continued development of NASS Computer Security Architecture.

There is a growing need for cyber-security given the increased incidences and threats of the loss, misuse, unauthorized access to, or modification of information on computer systems. The level of sophistication displayed by hackers and others also supports the need for security reforms, such as the implementation of early warning systems for attacks, intrusions, and viruses. Intrusion detection and monitoring software would allow NASS security staff to review access attempts, create audit trails, and monitor system connection for validity. Continued progress in critical cyber-security issues would also ultimately lead to reduced time associated with system access for both the end users and security administrators. Cyber-security has replaced Year 2000 as the top priority in the information technology community. Information security is of vital importance to maintain NASS's credibility given the market sensitivity of the reports released as well as the confidential nature of the data collected by NASS from the Nation's farmers, ranchers, and agribusinesses.

This concludes my statement, Mr. Chairman. Thank you for the opportunity to submit this for the record.

AGRICULTURAL MARKETING SERVICE

PREPARED STATEMENT OF KENNETH C. CLAYTON, ACTING ADMINISTRATOR

Mr. Chairman and Members of the Committee, I am pleased to have this opportunity to represent the Agricultural Marketing Service in presenting our fiscal year 2002 budget proposal.

MISSION

AMS activities are an integral component of USDA-wide efforts to assist the U.S. agricultural industry in marketing their products and in finding ways to improve their profitability. AMS' mission is to facilitate the marketing of agricultural products in the domestic and international marketplaces, ensure fair trading practices, and promote a competitive and efficient marketplace to the benefit of producers, traders, and consumers of U.S. food and fiber products. We accomplish this mission

through a variety of activities funded from appropriations and from fees charged for services. In providing services such as market reporting and grading, we are able to maintain close contact with our customers, making us aware of their concerns. Furthermore, since most of our user-funded services are voluntary, we must remain conscious of cost while being responsive to customer needs.

To improve marketing and better serve the needs of farmers and producers in 2002, we are proposing to initiate two new activities. The first initiative will allow AMS to support the international marketing of agricultural products through greater participation in the development of international standards. The second initiative addresses the effect of bioengineering on the domestic and international marketing of food, fiber and seed. However, before I discuss our proposed increases for fiscal year 2002 in more detail, I would like to briefly describe some of the marketing issues facing U.S. farmers and a few of AMS' recent and very significant accomplishments in fiscal year 2001.

AGRICULTURAL MARKETING

U.S. agriculture is facing continual and rapid changes in the structure of the industry, domestic and international consumer preferences, the types of support programs being offered by the government, new production methods, and greater dependence on export markets. The trend toward consolidation in some industries, and contracted production in others, threatens market competition. Farmers, particularly small, limited resource farmers, need more marketing-related assistance as Federal price supports decline. Consumer preferences and concerns affect the sales of food and fiber products. Recently, consumers have become increasingly concerned over the implications of bio-engineered agricultural products. Although global marketing offers new opportunities for American agricultural producers, those opportunities may be burdened by new requirements and restrictions.

MANDATORY MARKET NEWS

Concern about livestock industry concentration and price discovery in the marketplace led to the Livestock Mandatory Reporting Act in October 1999. AMS began implementing the Mandatory Market News Program on April 2. This program directly supports agricultural trading by requiring large packers and importers to report to AMS the details of their transactions involving purchases of livestock, as well as sales of boxed beef, boxed lamb, lamb carcasses, and imported boxed lamb cuts. We estimate that 80 to 90 percent of the volume of all cattle, boxed beef, slaughter hogs, sheep, lamb meat, and imported lamb traded will be covered by the mandatory market reporting program. Implementation of a reporting program of this size required development of a new electronic collection and report generating system. We developed and tested this electronic reporting system with industry participation. Since this is the first regulation that requires the industry to electronically report proprietary information on daily market transactions, we have conducted informational meetings for packers to provide instructions and training on the electronic data transfer process.

NATIONAL ORGANIC PROGRAM

The implementation phase of the National Organic Program is now underway. The organic industry, State governments, and consumers urged passage of the Organic Foods Production Act. The purpose of the Act is to establish a national standard for organic production and handling, to assure consumers that standards are met, and to facilitate trade. AMS published the final rule for the program in December and the program's 18-month implementation period began April 21. During the next 18 months, program staff will develop training materials, assist the National Organic Standards Board in reviewing additional allowed and prohibited substances for inclusion on the National List, and begin the process of accrediting the certifying agents. Program employees are conducting accreditation workshops to train State and private certifying agents on the requirements for accreditation under the National Organic Program. After the certifying agents submit their applications and the program completes its acceptance process, AMS will announce the first accreditations in late April 2002. AMS expects to accredit 40 certifying agents in April 2002 and a total of 59 agents by the end of the implementation period. After the implementation period, these accredited certifying agents will be required to follow the national organic standard and related procedures.

We are preparing the administrative procedures to distribute the certification cost share funding provided under the Agricultural Risk Protection Act of 2000 through agreements with the 15 States targeted for the program. These funds, intended to defray some of the certification costs, will be distributed to organic producers in the

targeted States who request cost share reimbursement and whose production operations are inspected and certified between December 2000 and October 2002 by an approved certifier. All of the payments are to be made by November 2002.

MICROBIOLOGICAL DATA PROGRAM

The new Microbiological Data Program—MDP—responds to consumer concerns by ensuring the quality and wholesomeness of the food supply in the United States. The program provides information about microbial pathogens and indicator organisms on fresh fruits and vegetables. The data will be provided to the Centers for Disease Control, Food and Drug Administration, USDA's Agricultural Research Service, and State Departments of Agriculture. Collection and testing of produce samples began in April. During 2001, the program will test samples of lettuce, tomatoes and celery for E.coli, Salmonella, and Listeria monocytogenes. Other commodities and organisms will be tested in rotation. State inspectors who collect samples for the Pesticide Data Program also collect samples for the MDP. The collection sites are the same for both programs—large distribution centers and terminal markets. State inspectors from California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin will collect a total of 62 samples per commodity per month. For quality assurance, the MDP staff is developing and implementing a program that monitors operating procedures, methods performance, verification procedures and the proficiency of check samples. Test results from the eight participating State laboratories and the AMS laboratory will be analyzed, summarized, and reported by AMS. If necessary, the laboratories will provide immediate notification to CDC and FDA.

PESTICIDE DATA PROGRAM

In support of the Food Quality Protection Act, AMS' Pesticide Data Program began its new Water Monitoring Survey in March. The Pesticide Data Program—PDP—generates data on dietary exposure to pesticide residues on foods to verify and assure the consumer of wholesomeness. Water survey data is needed by EPA to estimate dietary exposure to pesticides through drinking water. To gather the data needed, the program will collect and analyze drinking water samples from municipal water treatment facilities. This year, finished drinking water samples are being collected from community water systems in New York and California by the United States Geological Survey—USGS. USGS will collect approximately two samples per month at each of 11 sites in New York State and 10 sites in the San Francisco area. Sampling may be increased to weekly during months when agricultural use of pesticides is high and reduced to monthly when pesticide use is low. AMS will provide the data to EPA for risk assessments on safety and regulatory decisions about pesticides. The program will implement quality assurance and quality control measures to verify analytical results and capture as much data as possible on the target pesticides identified by EPA. The testing laboratories will send the water data to PDP headquarters, which will annually release the collected data in a summary report.

FEDERAL-STATE MARKETING IMPROVEMENT PROGRAM

The Federal-State Marketing Improvement Program—FSMIP—increased its support of small, limited-resource farmers this year. Small farmers need increased help in developing their marketing opportunities. The FSMIP program offers matching grants funding to States to stimulate innovative product development and marketing approaches, and an opportunity to disseminate those results quickly. The additional grants funding provided in 2001 is being made available to States for projects that focus on identifying direct marketing opportunities for small farmers and agribusiness, export-oriented research and technical assistance to small farmers, and sustainable agricultural production and marketing and increased utilization of bio-based industrial products.

BUDGET PROPOSAL

For fiscal year 2002, we are requesting a total budget increase of $5 million for our two new marketing initiatives—Global Market Expansion and Biotechnology.

Global Market Expansion

An additional $1 million for an AMS Global Market Expansion program will allow AMS to strengthen export opportunities for U.S. producers by expanding our participation in international standards development. Agricultural product standards provide the commercial language upon which trade is based. These standards can facilitate trade within and among countries if properly and fairly developed, but may be

used as non-tariff trade barriers when other forms of trade protection come under close scrutiny. We propose to increase our involvement in standards activities at the fundamental development stage to ensure that U.S. interests are considered before final standards are established. Due to our technical expertise, AMS has been asked to assist U.S. producers, the Foreign Agricultural Service, the Food and Drug Administration, and other agencies in addressing agricultural product standards issues. The standards developed through the various international standards setting organizations typically find wide commercial application and provide the basis for dispute settlement at the World Trade Organization.

The agency has participated in standards setting meetings as resources have allowed. We have also made efforts to engage industry sectors in this work, including meeting preparation and attendance. While we have achieved success in several commodity areas, much work remains to be done. This initiative will allow AMS technical experts to participate in the full range of standards setting forums that require U.S. attention.

Increased participation will result in additional opportunities to influence the content of international standards so they are inclusive of, and even favorable to, U.S. products and production methods. This initiative will also allow AMS to cooperate with the domestic industry in studies and projects aimed at better identifying the types and content of product standards that would be most useful in supporting export trade.

One international forum is the United States Organization for Economic Cooperation and Development Seed Schemes, which is the critical body for the development and maintenance of genetic purity and quality standards for the certification of seed in international trade. An interagency task force proposed that AMS increase its participation in Seed Schemes meetings by serving as the U.S. Designated Authority and by administering the program. This initiative provides the resources needed by AMS to function in this expanded capacity.

This budget request does not duplicate, but complements, the programs and responsibilities of the Foreign Agriculture Service and other Federal agencies. AMS provides unique technical expertise concerning the development and maintenance of agricultural product standards. Our participation supports the foreign market promotion and policy responsibilities of other agencies. AMS' program will be staffed in the United States and will not require any overseas personnel assignments.

In summary, this initiative will strengthen export opportunities for U.S. producers through increased AMS participation in international standards. It will result in better representation of U.S. agricultural interests in international standards and help to avoid non-tariff trade barriers and enhance FAS' marketing efforts on behalf of U.S. agriculture.

Biotechnology

Our $4 million request for Biotechnology would allow us to address the rapidly increasing importance of genetically modified organisms in agriculture. Consumer preferences—both domestic and foreign—are requiring commodity firms and food companies to preserve the identity and voluntarily label non-bio-engineered crops and foods. Some countries have instituted labeling requirements for biotech foods. To meet the industry's need to differentiate bio-engineered from conventional crops, AMS proposes to capitalize on agency expertise to provide biotech/non-biotech verification and quality assurance services for the seed, fruit and vegetable industries. The Federal Seed Act protects the interests of growers by regulating the labeling of seed in interstate commerce. To meet the regulatory requirements of the Act, which require that we ensure that seed varieties are correctly labeled, AMS must develop the program's capacity to verify biotech and non-biotech properties in seed. We propose to expand our laboratory and field programs to enable us to test seed varieties for claims of bio-engineered or non-bio-engineered properties. Once seed testing procedures have been established, we will conduct training workshops for seed analysts in state laboratories throughout the United States on the testing procedures. The response to a recent request for public comment indicated a strong industry interest in seed testing using DNA-based technology to identifying genetically engineered seeds.

For fruits, vegetables and nuts, we propose to implement a voluntary, audit-based quality assurance service designed to verify that farms or processing facilities meet accepted standards for excluding the presence of genetically modified organisms. This program will allow certified participants to meet non-modified organism requirements in the U.S. and abroad. AMS will develop guides and training materials on genetically modified and non-modified organisms for growers, processors, and other interested parties.

We also propose to establish a laboratory testing program that will focus on biotech methods development and laboratory accreditation services to support verification of biotech and non-biotech claims for fruits, vegetables and nuts. We will coordinate this laboratory program with GIPSA's biotech activities for grain.

For this initiative, AMS will require appropriated funding to set up and start the program. Once the quality assurance service and laboratory functions are fully established, AMS may be able to recover a portion of the costs through user fees. Regulatory activities under the Federal Seed Act would continue under appropriated funding.

BUDGET REQUEST SUMMARY

That concludes our budget presentation for fiscal year 2002. By fund, our total budget includes $71.4 million for Marketing Services, a program increase of $5 million above current services funding, $1.3 million for FSMIP grants under Payments to States, and $23.7 million in Section 32 Administrative funds. Our budget request includes a pay cost increase of $1.2 million for Marketing Services.

This request will allow AMS to build on its strengths to assist the agricultural industry by facilitating domestic and international marketing.

Thank you for this opportunity to present our budget proposal.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

PREPARED STATEMENT OF DR. CRAIG A. REED, ADMINISTRATOR

Mr. Chairman and members of the Committee, "Protecting American Agriculture" is APHIS' motto. It also succinctly and accurately describes our mission. American farms and related agricultural industries are the healthiest and most productive in the world. As a result, all Americans—urban, suburban, and rural—enjoy an abundant and affordable food supply filled with a wide variety of products. Agriculture provides an enormous contribution to the U.S. economy. USDA economists calculate that each dollar earned from agriculture exports, stimulates another $1.32 in business activity for the economy. In all, more than 23 million jobs—17 percent of the civilian workforce in America—are involved in some phase of growing and distributing food and clothing world-wide. The United States agricultural industry dominates national markets, and those found abroad. We help to maintain this advantage by:

—Safeguarding animal and plant resources from exotic invasive pests and diseases,
—Monitoring and managing agricultural pests and diseases existing in the United States,
—Resolving and managing trade issues related to animal or plant health, and
—Ensuring the humane care and treatment of animals.
—We remain steadfast in our efforts to provide the Nation with safe and affordable food and fiber. Without APHIS protecting America's animal and plant resources from agricultural pests and diseases, threats to our food supply could be devastating. For example, left unchecked, Mediterranean fruit fly and foot-and-mouth disease—two major agricultural health threats—would cause production and marketing losses of several billions of dollars annually in this country. These and other threats are real. In fiscal year 2000, under the authority provided by the Congress, the Secretary transferred $220 million to APHIS for emergency programs. The experience of fiscal year 2000 alone shows us that failing to invest in a comprehensive safeguarding system will inevitably lead to large Federal expenditures and devastating losses for American farmers.

In recent years, the scope of APHIS' function of protecting U.S. agriculture has expanded beyond pest and disease management. Because of our technical expertise in assessing and regulating the risks associated with agricultural imports, APHIS has assumed a new trade support role. Now the agency must respond to other countries—animal and plant health import requirements and negotiate science-based standards to ensure that America's agricultural access to foreign markets, worth over $50 billion annually, is protected from unjustified trade restrictions. The American people and the Congress, have directed us to expand our protection role to include wildlife damage management, the welfare of animals, human health and safety, and ecosystems vulnerable to invasive pests and pathogens. In carrying out our diverse protection responsibilities, we make every effort to address the needs of all those involved in the U.S. agricultural sector, especially small farms. Congress has passed several laws that give APHIS the authority to implement our safeguarding mission. In 2000 the Plant Protection Act, as part of the Agriculture Risk Protection

Act, expanded and consolidated various plant protection activities, widening the scope for APHIS' involvement in plant health. The Act gives USDA the authority to establish more effective deterrents against smuggling. It puts real teeth in our enforcement efforts program. We will be able to assess larger fines, secure subpoenas, and prosecute serious offenders in Federal Court.

To respond to the threats to U.S. agriculture, both newly emerging and ongoing, APHIS applies a variety of strategies toward five goals. This statement addresses the five APHIS goals and examines the programs we use to complete our mission. It provides recent activities, accomplishments, and challenges for the programs.

Goal 1.—To safeguard U.S. animal and plant resources against introductions of exotic invasive pests and diseases, while meeting international trade obligations.

Keeping agricultural pests and diseases out of this country is the linchpin for a healthy and productive farm and agricultural industry related economy. We have inspectors at foreign locations and at our borders vigilantly watching for pest and disease intrusions. We also work closely with stakeholders and producers to keep exotic pests and diseases out.

In October 2000, APHIS began reviewing recommendations from a National Plant Board Safeguarding Report. These recommendations recognize that globalization has increased APHIS' challenges in safeguarding America's agriculture resources. The report covered the collection and use of international information, potential risk pathways, and areas where we need to improve our risk mitigation efforts. In fiscal year 2001, we will continue to review recommendations for implementation. APHIS animal health officials are currently conducting a similar study to identify the needs and directions of the Agency's animal health efforts.

One strategy we employ to safeguard against the introduction of foreign diseases and pests is to help identify, control, or eradicate exotic agricultural health threats where they originate—outside the United States. APHIS has made several improvements in the past year. The foreign animal disease (FAD)/foot-and-mouth disease (FMD) program has expanded its scope from the traditional role of preventing FMD outbreaks overseas. We are improving surveillance of other FADs to ensure that the U.S. is prepared to address the threat of disease entry into the U.S. We are working with officials in Central and South America as well as in Asia, Europe, and Africa, where increased international trade presents new threats of introduction of FADs. APHIS officials are attempting to improve the infrastructure in these regions to allow them to respond quickly to outbreaks of FADs and manage them where international trade is involved. As of April 12, 2001, 70 Federal and State veterinarians and two animal health technicians have been deployed to the UK to provide technical assistance to their FMD eradication efforts. To intensify our efforts to keep FMD out of the U.S., our Agricultural Quarantine Inspection—User Fee program has increased international passenger arrival inspections using an additional $13.5 million in fiscal year 2001 and an estimated $18.6 in fiscal year 2002 from available user fee collections to fund additional inspection personnel and detector dog teams. The cattle tick program is a specific example of our efforts to safeguard against incoming animal disease threats. The program's focus is to identify tick incursions and quickly prevent their spread. In the past year, the program had to rapidly react to incursions from Mexico into Texas caused by low water levels in the Rio Grande. APHIS placed 45 premises under quarantine in fiscal year 2000 to prevent the spread of the tick.

Perhaps our most impressive effort to prevent the entry of an animal health threat is the screwworm program, which has successfully driven the pest seven countries south of the U.S. border. In the past year, Costa Rica has been declared as screwworm-free. The program there as well as in Nicaragua is now shifting toward monitoring and surveillance for screwworms and other FADs. The focus of the screwworm program is now in Panama, where the Joint U.S.-Panama Commission for the Eradication of Screwworm is actively releasing sterile flies throughout the entire country, with great progress toward eradication. The program will eventually establish a screwworm barrier in Panama, at the continent's narrowest point, where it is most cost-effective. To this end, the Joint Commission plans to build a new sterile screwworm facility in Panama and is currently engaged in securing financing.

APHIS also has important plant health programs in other countries, which prevent the introductions of pests and diseases that would threaten the fruit and vegetable markets in the U.S. The fruit fly exclusion and detection (FFED) program currently has an enormous effort ongoing in Mexico and Guatemala to reduce the Mediterranean fruit fly (Medfly) outbreaks that have threatened the U.S. citrus and other industries with billions of dollars in damage since 1998. The program has relied on emergency fund transfers to re-establish a Medfly barrier in Guatemala at a more sustainable location. We have increased sterile Medfly production and are using a variety of methods to deal with the threat in the long run. This program

provides significant protection for the citrus industry in Florida and California, where APHIS and the States have faced emergency situations. We are working within our borders as well. One example is the Medfly Preventative Release Program and detection efforts in California. APHIS will continue to use sterile flies in fiscal year 2001 to prevent the establishment of most wild fly introductions and to allow us to more easily manage smaller scale outbreaks. The FFED program has effectively used more environmentally friendly organic baits in large-scale operations in Guatemala, and has been trying the new methods in our domestic operations.

Another strategy APHIS uses to safeguard against introductions of pests and diseases from overseas is to ensure a high rate of compliance with APHIS quarantine regulations. The responsibility of the agricultural quarantine and inspection (AQI) program, which protects U.S. agriculture at the borders, has increased with the expansion of international trade and travel. We expect to add more inspectors in fiscal year 2001. To pay for these anticipated staff increases beyond that reflected by volume of traffic, APHIS adjusted the AQI user fee schedule to reflect the increasing need. For the part of the program not funded by user fees, we are using the increased appropriation the Committee provided for fiscal year 2001. We have begun using a more scientific staffing model, which focuses more on risk level and less on port volume. Using this staffing model, which has received considerable industry support, we can better ensure that we have our people strategically positioned to prevent the entry of restricted products. We now staff bridges at most U.S.-Mexico ports of entry 18 hours a day, with at least 3 shifts every day. The next major step we must take is to more vigorously pursue violators of the quarantine regulations. Static funding from fiscal year 1992 to fiscal year 2001 in our animal and plant health regulatory enforcement program has eroded our ability to keep up with violations. The time needed to complete investigations has more than doubled in the past eight years. Even so, APHIS conducted 938 investigations involving plant quarantine violations in fiscal year 2000, resulting in $325,000 in fines. We anticipate this will increase in fiscal year 2001 with passage of the Plant Protection Act. In addition, we continue to investigate animal health and animal care program violations. The addition of animal care inspectors will undoubtedly increase the number of violations we detect and should pursue.

A pending issue that may be detrimental to APHIS' quarantine activities is the reduction in production of methyl bromide under new EPA regulations. We require some imports to undergo methyl bromide treatment before entering the U.S. While quarantine activities should be exempt from the production restrictions, the EPA has not published regulations allowing for the extra production. Without adequate supply, ports will have to turn away agricultural products at the border or destroy them. These actions could damage trade relations with our partners.

Another strategy we employ to meet our safeguarding goal is to foster a trade environment that allows for a common understanding of international agricultural health standards, a free flow of risk-assessment information, and quick resolution of technical trade barrier issues. The trade issues resolution and management program, formerly the sanitary/phytosanitary program, resolves import and export trade issues involving the health of U.S. agriculture. APHIS officials overseas participate in negotiations that ensure market access for U.S. products that may face restrictions for sanitary and phytosanitary reasons, as well as ensure that imports from other countries do not threaten the health of U.S. agriculture. More often, as international agreements have removed traditional barriers to trade, countries rely on sanitary or phytosanitary restrictions to prevent free access to competing products. These health measures may be arbitrary and not science-based, so APHIS' technical experts must be involved in trade negotiations to assure that U.S. agricultural products receive fair consideration. In the past year, our officials played key roles in advancing U.S. strategic interests regarding the development of standards for genetically modified organisms and wood packing materials, among other issues, with the International Plant Protection Convention, which sets international standards for plant health. APHIS officials also worked with the Office International des Epizooties, the recognized international standard-setting body for animal health, to develop standards on diseases such as bluetongue and bovine spongiform encephalopathy, as well as setting international guidelines for regionalizing diseases for trade purposes. APHIS officials also played key roles in bilateral negotiations that opened up market access for several U.S. commodities, including peaches, nectarines, and plums in Mexico, and nectarines in Japan. We successfully negotiated with China to open its tobacco market, while other U.S. industries began to export to that enormous potential market in fiscal year 2000. All of this new trade presents challenges and opportunities for APHIS. APHIS, under the U.S.'s World Trade Organization obligations, is also responsible for quickly evaluating requests for agricul-

tural imports. We currently have over 200 requests pending. Also, to prevent disease incursions into the U.S., our officials will continue to work in fiscal year 2001 with foreign agriculture officials to determine the presence of pests and diseases, enabling us to make accurate assessments of the risks of certain products from trade partners.

The Import Export program also fulfills our obligation to facilitate trade while ensuring that we protect U.S. livestock, poultry, and wildlife from incursions of exotic pests and diseases. Through bilateral negotiations, APHIS officials expanded markets for certain animal products to China, Mongolia, Lebanon, and Australia in fiscal year 2000, and are currently negotiating with Brazil and Argentina to revise export protocols. The Import/Export program officers also reviewed requests for import of avians, as well as livestock. Cattle imports into the U.S. nearly doubled in fiscal year 2000. The program restricted imports from the UK following an outbreak of Classical Swine Fever there in fiscal year 2000. With regard to the foot-and-mouth disease (FMD) threat, effective January 15, 2001, we removed the UK from the list of FMD-free countries. As of April 13, 2001, we began requiring that used farm equipment be certified free of all dirt and other particulate matter. In December 2000, we prohibited all imports of rendered animal protein products, regardless of species, from Europe. This decision followed the recent determination by the European Union that feed of non-ruminant origin was potentially cross-contaminated with the bovine spongiform encephalopathy agent.

APHIS is trying to facilitate animal trade through a veterinary equivalency agreement with the European Union (EU). Since signing a Red-Meat Agreement in 1992, the two parties have been attempting to further ease trade restrictions by recognizing equivalency between EU and U.S. sanitary measures. We completed a risk assessment to address EU concerns about recognizing the status of their states separately, rather than as a single unit, when disease may not be present in every state. This year, we are completing a supplemental risk assessment, based on industry comments and concerns over disease potential.

Goal 2.—To minimize agricultural production losses and export market disruptions by quickly detecting and responding to new invasive agricultural pests and diseases or other emerging agricultural health situations.

Exotic agricultural pest and disease incursions can cause significant damage initially, but also can cause catastrophic damage if left undetected very long. Our program priorities include early detection activities and accelerated eradication when there are emergency outbreaks.

APHIS strategies to achieve this goal revolve around a cooperative relationship with States, academe, animal and plant industry stakeholders, and international organizations. On the plant side, APHIS—Pest Detection program works toward quick detection and mitigation of exotic plant pests through the Cooperative Agricultural Pest Survey. The survey is a partnership with States to coordinate data collection on incipient infestations of exotic plant pests with the potential to cause economic losses. The program's database system helps the participants to track the spread of pests and plan their control. The Pest Detection program detected 459 new plant pests in fiscal year 2000, up from 334 in fiscal year 1999, yielding valuable information for the control of emerging pest threats in the U.S. APHIS also controls plant pest threats through the aforementioned Fruit Fly Exclusion and Detection program, which partners with States to control incursions of fruit flies into the U.S.

APHIS addresses animal pests and diseases through the Animal Health Monitoring and Surveillance program. In fiscal year 2000, we increased our investigations of suspected foreign animal diseases from 336 to 385. The Agency also participated in 18 state level test exercises to improve responses to disease incursions, conducted training for veterinarians to recognize foreign animal diseases, and provided technical assistance to various countries and states dealing with animal disease outbreaks. This included an outbreak of tropical bont tick in St. Croix and an outbreak of rabbit calicivirus disease in Iowa. In November 2000, APHIS officials and their counterparts in Canada and Mexico participated in a tripartite exercise simulating an FMD outbreak. This exercise tested APHIS' ability to share critical disease—related information with their North American partners and evaluated the Agency's emergency response plans as they relate to activating the FMD vaccine bank. APHIS led efforts to control the West Nile Virus outbreak among U.S. livestock and responded quickly to the detection of a screwworm positive horse in Florida. The National Animal Health Monitoring System delivered objective information addressing animal health as it pertains to U.S. trade, agricultural productivity, public health, and on-farm quality assurance. The program provided studies or risk assessments to commodity groups, state governments, academic institutions, and other federal agencies for equine diseases, possible diseases in eggs, and completed the first phase of a swine study in fiscal year 2000. The program conducted studies on

Johne's Disease, brucellosis, and tuberculosis, as well as various poultry diseases. Our fiscal year 2001 plans include expanding the Johne's disease program by including a quality surveillance and certification program as well as continued pseudorabies surveillance.

Another strategy to achieve this goal is to partner with States and industry stakeholders to develop an appropriate, measured response capability for outbreaks of invasive pests and diseases in the United States. Through the Emergency Management System, APHIS tries to improve the ability of the U.S. to handle animal health emergencies, from natural disasters, and accidental or deliberate introductions of FADs. In fiscal year 2000, APHIS held two workshops for private and state veterinarians on animal health emergencies and diseases. We also drafted measures for state participants in responding to an animal health emergency. In fiscal year 2001, our plans include entering into cooperative agreements for emergency management activities, placing emergency managers in the field, training, and providing technical assistance to foreign countries currently battling foreign animal diseases such as FMD.

In fiscal year 2000, we responded to several emergency situations that arose in the U.S. The Asian Longhorned Beetle entered the U.S. through wood packing materials from China, and soon spread throughout several locations from New York and Chicago. The pest threatens $41 billion dollars of trees and thousands of acres of forest land in the U.S. So far, we can control it only by removing and destroying infested trees, but with our colleagues in ARS we have been concentrating on developing new methods. In fiscal year 2001, we received $49.6 million in emergency funding transfer from the Commodity Credit Corporation to continue these efforts. We also responded to an outbreak of Plum Pox virus, in several peach orchards in Pennsylvania. USDA declared an emergency, and APHIS moved quickly to eradicate the disease and monitor for its possible spread before it could damage the entire U.S. stone fruit industry. We will continue national survey and tree removal activities in fiscal year 2001. We also worked with the State of Florida to control an outbreak of Citrus Canker, a devastating disease which spreads rapidly and reduces the fruit production of citrus trees. APHIS provided technical assistance and conducted regulatory, survey, and planning activities. With additional emergency funding, we will continue these cooperative activities in fiscal year 2001. Left unchecked, losses from citrus canker in Florida could total $200 million per year.

Another example of APHIS' quick response to potential threats in fiscal year 2000 involved the discovery of six sheep in Vermont which tested positive or suspect for the transmissible spongiform encephalopathy (TSE) marker. TSEs are chronic, fatal diseases affecting the central nervous system of certain mammalian species. TSEs are found in sheep and goats as scrapie, in deer and elk as chronic wasting disease, and in cattle as bovine spongiform encephalopathy (BSE). We moved quickly to dispose of the positive/suspect animals. In addition, we offered to purchase and dispose of the remaining sheep in the affected flocks to minimize the risk of disease spread. The flocks had been imported from Belgium before we imposed restrictions of animal imports from Europe in response to BSE outbreaks. In March 2001, under authority of the U.S. District Court, we removed 360 quarantined sheep from two private Vermont farms. The sheep were transported to our National Veterinary Services Laboratories in Ames, Iowa, where they were humanely euthanized. Tissue samples will be collected from the sheep for diagnostic testing. The owners will be compensated for the fair market value of the sheep.

Goal 3.—To minimize risks to agricultural production, natural resources, and human health and safety by effectively managing existing agricultural pests and diseases and wildlife damage in the United States.

We have been fighting agricultural pests and diseases in this country for a long time. While some programs are ultimately successful, it is arduous to achieve complete eradication. Nevertheless, the economic benefits accrued to producers and less dependance on environmentally invasive chemicals makes eradication worthwhile. Managing wildlife conflicts also has significant economic and human health and safety benefits.

One strategy to achieve this goal is to conduct cooperative programs for control or eradication of ongoing regional and national agricultural health problems. We have several ongoing programs to manage the spread of selected agricultural pests and diseases, many of which have plagued American farmers for a century or longer. The Boll Weevil Eradication Program (BWEP) aims to eradicate the pest from all cotton-growing areas of the U.S. and Northern Mexico by 2004. In fiscal year 2000 the program added the Rolling Plains region of Texas to the list of 12 eradicated areas since 1983. Surveillance activities continued in these areas while other programs in the Southeast and Southwest progressed. The BWEP began with cotton grower foundations, States, and other non-Federal sources contributing 70

percent of the total cost per year and APHIS contributing the remaining 30 percent. Contributions from non-Federal sources increased to 87 percent in fiscal year 1998 and to 96 percent in fiscal year 2000. The program expects to spend about $274 million in fiscal year 2001, and APHIS' cost share will increase to about 26 percent because of the $64 million increase in the program's appropriation. We will use these additional funds to retire debt and increase our cost share with eight States, largely in Texas and Mississippi.

Pseudorabies, a serious swine disease, costs pork producers nationwide over $30 million annually and poses a constant threat to the $30 billion pork industry. APHIS began a cooperative State-Federal pseudorabies eradication program in 1989. From 1992 to the end of 1998, the number of infected herds dropped from approximately 8,000 to just over 1,000. At that time, APHIS was struggling to make further progress against pseudorabies, and producers were suffering the effects not only of the disease, but also of record low market prices. As a result, in January 1999, the Secretary transferred emergency funding to APHIS to establish the Accelerated Pseudorabies Eradication Program (APEP). APEP has substantially furthered the goal of eradicating this serious disease from the Nation's swine population. Under APEP, over 1,000 infected herds—or about 1.2 million swine—have been depopulated in 18 months, with more than $80 million in indemnity paid to affected producers. As of April 1, 2001 there were only 95 infected herds in the U.S., and only Iowa faces major infection at this time.

Bovine tuberculosis (TB) is a contagious, infectious, and communicable disease that can be fatal in both animals and humans. APHIS has been working to eradicate it since 1917. We still face three major obstacles to lowering the incidence of new infection in domestic cattle herds. These are undetected infected captive cervid (deer) herds; persistent infections in El Paso dairies; and infected wild deer in Michigan that are the probable source of TB transmission to domestic livestock. In recent years, we have worked successfully to include captive cervids in the TB eradication program through regulatory amendments. APHIS is working with the State of Texas and the El Paso milk producers to build a buffer zone between the U.S. and Mexico in the El Paso region. To eliminate the last vestiges of the disease, we are working with Michigan in order to identify and eradicate TB from all domestic species and assisting the state in the eradication from wild deer populations. If we had not acted, these reservoirs of TB inevitably would have led to reinfection in other states.

I am pleased to report tremendous success with the brucellosis eradication program. We are on the brink of victory in a battle that has lasted for seven decades. Over the past century, brucellosis caused abortions, infertility, and lowered milk production in cattle and bison, and resulted in devastating losses to U.S. farmers. Now, thanks to an enhanced cooperative Federal-State-industry effort, we are eliminating the last pockets of infection. With Oklahoma joining Class Free status, there are 47 States enjoying this designation. For the first time, there are no known infected herds in the United States. Brucellosis has a variable, sometimes quite lengthy incubation period, and it would not be too surprising if we eventually find another infected herd. We are prepared to aggressively pursue any newly infected herds to eliminate the disease as quickly as possible. We cannot declare the United States officially brucellosis free until all States reach Class Free status. States must go a full year without disclosing any newly infected herds, and must also meet certain surveillance criteria to meet the standards for Class Free Status. Once the remaining States—Florida, Missouri, and Texas—reach Class Free status, we will officially declare the U.S. free of brucellosis. To ensure there is no reoccurrence, we will continue surveillance for 5–10 years.

While we have made great strides in eradicating boll weevils, cotton growers face other threats. The goal of the pink bollworm program is to contain the pest to the southwestern portion of the Cotton Belt (Texas, Oklahoma, and the States to the west), while rearing and releasing sterile moths to prevent the pest from becoming established in the San Joaquin Valley of California. APHIS produced approximately 867 million sterile moths at the Phoenix, Arizona, rearing facility for incremental releases in the San Joaquin Valley. The program continued to improve rearing efficiency and maintained production using less diet material, thereby reducing cost. In addition, program cooperators monitored over 13,200 traps in the San Joaquin Valley to detect any new introductions of pink bollworm. In fiscal year 2001, we will continue sterile moth releases to prevent native moths, which migrate into the San Joaquin Valley from the South, from mating successfully. This prevents the pest from becoming established in nearly one million acres of high yielding cotton.

Another tool in protecting American agriculture is Federal leadership in managing problems caused by wildlife—to reduce damage caused by wildlife to the lowest possible levels, while, at the same time, reducing wildlife mortality. Aquaculture,

the farming of fish, shellfish, and plants, is a nearly $1 billion industry in the United States. U.S. aquaculture accounts for more than 180,000 jobs and has an economic impact of more than $5.5 billion annually. APHIS continues efforts to reduce fish-eating bird damage by providing assistance, loaning damage abatement equipment, and conducting wildlife damage assessments for aquaculture producers including catfish and bait fish farmers. Also, with an organized roost dispersal effort, we reduced the estimated 70,000 cormorants in the Delta catfish production region by approximately 70 percent in fiscal year 2000. In fiscal year 2001, we will continue telemetry studies on depredating species of wildlife in the Southeast.

By its very nature, wildlife is highly dynamic and mobile and can damage agricultural and industrial resources. It poses risks to human health and safety and affects other natural resources. The wildlife services operations program resolves problems that occur when human activity and wildlife conflict with one another. For example, blackbirds migrating through the Great Plains cause several millions of dollars of damage every year to grain crops and livestock feed. They destroy nearly $10 million in sunflower crops alone, mostly in South Dakota and North Dakota. APHIS has been providing assistance in the form of dispersal techniques and habitat management. Wildlife also spread rabies, which poses a serious threat to livestock, wildlife, and pets, as well as human health. APHIS has been cooperating with the State of Texas since 1995 to stop the spread of rabies in coyotes and gray foxes. Since 1997, we have worked with the States of Ohio, Vermont, and New York to prevent the spread of rabies in raccoons. In addition to appropriated funding, APHIS recently received $4.2 million in emergency funding transferred from the Commodity Credit Corporation to reestablish barriers that have broken down and to expand those that are inadequate. This funding will provide only temporary action; a long term commitment is required if we are to control the spread of rabies.

The U.S. Fish and Wildlife Service has been reintroducing gray wolves, as a federally listed threatened species, into areas where their populations were depleted, including the Yellowstone ecosystem and central Idaho. Also, naturally occurring gray wolf populations in the Great Lakes region have been expanding southward through Minnesota and into Wisconsin and Michigan. Environmental groups are pushing to reintroduce wolves into additional locations, including the southern Rocky Mountain region and the New York/New England area. These expanding populations have had an impact on livestock with an increasing number of depredations from wolves. Since the gray wolf is a protected threatened species Federal law limits producers in the methods they may use to control predation. They must rely on Federal entities such as APHIS to assist them in implementing wildlife damage control activities. The requests for assistance in managing wildlife hazards at airports and military air bases also continue to increase. Airports report approximately 3,600 wildlife strikes to civil aircraft each year, and the U.S. Air Force alone reports more than 2,500 strikes. In fiscal year 2000, APHIS personnel provided wildlife hazard management assistance to 418 airports and military air bases.

Goal 4.—To ensure the humane care and treatment of animals covered under the Animal Welfare Act and various laws protecting horses.

The public is concerned about the health and well-being of animals held in captivity. Our response is to establish minimum standards for the humane care and treatment of animals used for research or exhibition purposes, sold as pets at the wholesale level, or transported by common carrier, and to carry out inspections to ensure high levels of compliance with those standards. We continue to focus resources on conducting quality inspections under the AWA at USDA licensed and registered facilities. The animal welfare program uses a risk based inspection system that concentrates activities on facilities where animal welfare concerns are the greatest. With the funding increase in fiscal year 2000, APHIS hired and began training eight new animal care inspectors. We anticipate adding at least eight more inspectors in fiscal year 2001.

There is an increase in public concern regarding the pain and distress experienced by animals used in research facilities, an issue which could greatly impact the biomedical research community. The AWA requires research facilities to report annually to the Secretary information on procedures likely to produce pain or distress in any animal which we report in our Annual Report to Congress. In the past, reporting has focused on painful procedures and largely ignored distressful procedures, despite the equal emphasis for both in the Act and regulations. Additionally, the current reporting categories are based on the use, or non-use, of pain relieving medications rather than on the actual level of pain or distress perceived by the animals. To better clarify the expectations for minimizing distress as well as pain, we have sought public input and received approximately 2,800 comments from interested groups, the general public, biomedical researchers, and interested parties

internationally. We now must evaluate the comments before deciding on whether or not to initiate a rulemaking change.

The humane care and treatment of elephants is receiving growing focus from animal concern groups and the media. APHIS has settled several high profile cases involving the care and treatment of elephants in Oregon and El Paso zoos as well as with a circus. APHIS received over 230 comments in response to a draft Policy on Training and Handling of Elephants and Other Potentially Dangerous Animals. While the policy is technically an internal document for APHIS use, the issue is of sufficient public interest and importance to warrant public input. We are currently reviewing the comments to determine whether there are any valid scientific or other reasons to modify the proposed policies and expect to publish a final version in the summer of 2001.

We also establish and monitor compliance with standards protecting horses being exhibited in shows or transported to slaughter and educate regulated entities and individuals to encourage compliance with animal welfare regulations in our horse protection program. The Horse Protection Act (HPA) originally enacted by Congress in 1970, is intended to eliminate "soring," the practice of inflicting injury on a horse's front feet for the purpose of accentuating a high stepping gait. Since 1996, APHIS has worked with the horse industry organizations certified under the HPA to develop a partnership whereby they can assume greater responsibility for self-regulation. APHIS has developed a multi-year plan beginning with the 2001 horse show season. However, we are concerned that several horse industry organizations will not agree with the plan. Also, we are now faced with a legal challenge to the plan from the American Horse Protection Association regarding APHIS' authority to delegate enforcement functions to the industry groups. Such ongoing controversy has made our job more difficult, but we remain committed to working with the industry to enforce the HPA.

Goal 5.—To develop and apply scientific methods that benefit agricultural producers and consumers, protect the health of American animal and plant resources, and sustain agricultural ecosystems. APHIS has established laboratories and applied science and technology centers to achieve this goal and to help achieve the other APHIS Goals.

Good science must be the strong base of everything we do in APHIS. We provide diagnostic services, products, and training to support animal disease surveillance, prevention, control, and eradication programs. Our veterinary diagnostics program provides assistance to State and other Federal agencies and laboratories, educational institutions, and foreign governments in the diagnosis of animal diseases. In fiscal year 2000, our National Veterinary Services Laboratories (NVSL) in Ames, Iowa, diagnosed cases of equine encephalitis during the West Nile virus outbreak in the northeastern United States. NVSL also diagnosed rabbit calicivirus during an outbreak in Iowa, the first time that disease had been identified in the United States. Also, NVSL developed a panel of over 25 defined sheep sera used to control quality and validate serodiagnostic methods for ovine Johne's serodiagnosis. Previously, the United States had no tested battery of defined sheep antisera for the standardization of Johne's Disease (paratuberculosis) testing in sheep. All told, NVSL received and tested 69,736 diagnostic submissions in fiscal year 2000, including 5,526 for import/export testing and 3,500 for avian influenza surveillance. NVSL also received 7,649 dip vat samples tested for pesticide concentration in support of the cattle tick program. In addition, NVSL received 2,303 brains to test for bovine spongiform encephalopathy (BSE) in support of BSE surveillance, which is the largest single-year total since surveillance began in 1990. This allowed NVSL to confirm to the U.S. public and trading partners that the United States is BSE-free. This function has become increasingly important as information and misinformation about BSE becomes widespread.

During fiscal year 2000, NVSL's Foreign Animal Disease Diagnostic Laboratory at Plum Island, New York, received and tested 724 diagnostic submissions. These represented 120 suspect foreign animal disease investigations; 38 import tests; 7 safety tests; 9 reference cases, including materials received from the Agricultural Research Service, foreign countries, and collaborative projects; and 550 classical swine fever surveillance (CSF) submissions. As risk of introduction of CSF remains high with uncontrolled outbreaks in the Caribbean and other areas, NVSL surveillance activities have shown that the United States is still free from this disease.

We provide new tools and technologies to improve wildlife damage management through our Wildlife Services Methods Development program. The National Wildlife Research Center (NWRC) is the only research facility in the world specifically designed for developing and implementing methods to resolve wildlife conflicts with humans and agriculture. The NWRC dedicates 75 percent of its budget to developing nonlethal methods for effective, practical, and socially-acceptable methods of

wildlife damage management. This helps ensure that high-quality technical and scientific information on wildlife damage management is available for the protection of crops, livestock, natural resources, property, and public health and safety. NWRC researchers conduct numerous activities, including the improvement and maintenance of current pesticide registrations, and researching new or improved methods for more effective management of wildlife damage.

NWRC, through an agreement with the General Services Administration and funding received in fiscal year 1999, is continuing construction of its state-of-the-art wildlife management research facility and national headquarters on the Foothills Campus of Colorado State University in Fort Collins, Colorado. APHIS is completing design work on a new Support Wing, an addition to the existing indoor Animal Research Building, which will be ready for occupancy in fiscal year 2002.

During fiscal year 2000, NWRC, through additional field and laboratory data, increased the APHIS Emergency Use Permit registration for acetaminophen as a toxicant for brown tree snake control on Guam from 300 to 2,000 baits per night. Researchers continued to make progress toward development of contraceptives for nonlethal wildlife damage management. Researchers are testing single shot PZP and GnRH immunocontraceptic vaccines in white-tailed deer at Pennsylvania State University. During fiscal year 2000, NWRC began research on nicarbazin, a potential contraceptive for controlling Canada goose populations where they are causing safety, health, or nuisance problems. Based on the preliminary successes observed in multiple laboratory and field studies, NWRC will conduct additional studies. Scientists continued the development of selective, humane wildlife capture devices to increase efficiency and reduce animal injuries associated with capture and restraint of coyotes. NWRC has continued experiments with tastes, odors, and physical or visual cues to improve coyote attraction to baits and delivery devices for chemical agents, and to identify potential chemical repellents and other predation deterrents. The Center has recently established a genetics laboratory to examine genetic relationships among individual coyotes.

NWRC works hand in hand with the wildlife services operations program by continuing to expand its research efforts to develop and improve methods for managing blackbird damage to rice and sunflowers. Biologists are cooperating with agricultural industry groups to determine the effects of blackbird control methods on the environment, including non-target species. Also, NWRC has undertaken multi-year research projects at various airports in the United States to reduce the threat to human safety occurring when wildlife collide with aircraft or are pulled into jet engines. Scientists have researched turf management, nonlethal repellents, and dispersal techniques to minimize strikes by gulls, waterfowl, turkey vultures, hawks, and other species that threaten aviation safety.

Another strategy is to facilitate, monitor, and regulate environmentally responsible development of biotechnology-derived products for the benefit of agricultural producers and consumers. Within the last decade, we have seen incredible advances in many scientific areas. Some of the most visible of these advances occurred in the realm of agricultural biotechnology. Along with the Internet and the mapping of the human genome, the introduction of genetically engineered fruits and vegetables was one of the most significant scientific stories of the 1990's. APHIS, the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA) are responsible for regulating agricultural biotechnology in the United States. APHIS regulates the development and field testing of certain genetically engineered organisms, primarily new plants and plant products, to ensure that they are as safe to use in agriculture as traditional varieties. Since 1987, we have overseen more than 7,000 field trials of new, biotechnology-derived plant varieties at 35,000 sites. Since 1993, APHIS' through our biotechnology regulations—has ensured the safe development, testing, and subsequent regulatory release of more than 50 new genetically engineered plants, including chicory, corn, potatoes, soybeans, and tomatoes. Along with the EPA and FDA, APHIS has ensured that these products—many of which are engineered for herbicide tolerance, insect-resistance, or disease-resistance—will not harm agriculture, the environment, or human health. For example, APHIS was involved in the issue concerning the production of Starlink, a strain of corn genetically engineered to have pesticide properties. We deregulated Starlink before the EPA restricted its use to animals due to possible allergenic properties to humans. Whether the Starlink Cry9C protein is a potential allergen requires additional research. To allay public concern both domestically and internationally about Cry9C in this year's hybrid seed corn, we assisted other Departmental agencies in the disposal of the seed corn by environmentally friendly means. Our officials have met the challenges posed by rapidly evolving technology and consistently base their regulatory decisions on the most current scientific information. To obtain the best independent, technical, and scientific data pertaining to biotechnology, APHIS officials

have consulted with scientists and regulators both in the United States and abroad. They have also performed extensive searches of a wide variety of scientific literature and participated in biosafety workshops and international symposia.

We comply with environmental analysis and reporting requirements and institutionalize a responsible environmental ethic in APHIS programs. In the environmental protection area, our National Monitoring and Residue Analysis Laboratory (NMRAL) in Gulfport, Mississippi, continued to support boll weevil, citrus canker, Asian longhorned beetle, Oriental Fruit Fly, MFF, and Medfly programs in fiscal year 2000. NMRAL provided sampling and analysis of worker exposure to chemicals both at the laboratory and at port facilities and laboratory analysis for pesticide residues and for industrial chemicals, and analysis for pesticide residues in food commodities for the Agricultural Marketing Service's Pesticide Data Program. NMRAL conducted 5,987 analyses in fiscal year 2000, of which slightly more than half, or 3,094, supported APHIS programs; the remainder we performed for other agencies on a reimbursable basis. APHIS manages and coordinates the preparation of environmental assessments (EA), environmental impact statements (EIS), environmental analyses, biological consultations, and related technical documents for operational programs. In fiscal year 2000, we completed 30 EAs, 28 biological consultations, and 1 EIS, in compliance with the requirements of the National Environmental Policy Act and other Federal environmental laws, regulations, and executive orders.

We also protect animal health by ensuring the purity, potency, safety, and efficacy of veterinary biological products. Veterinary biologics program activities include licensing veterinary biological products, inspecting licensed manufacturing facilities, testing samples of licensed products, and issuing permits for product importation. For example, we issued 3,843 official certificates in fiscal year 2000 that indicate licensed production and testing facilities and products have met or exceeded marketing requirements. The regulated industry used these certificates to register their products for sale in foreign countries. The confidence that foreign regulators have in the U.S. veterinary biologics licensing, testing, and inspection system is reflected in their readiness to accept our products. APHIS continued efforts to reduce trade barriers that limit the sale of veterinary biological products overseas. Officials continued discussions with representatives of the European and U.S. biologics industries and with regulatory officials from the European Union regarding a Mutual Recognition Agreement concerning the marketing of veterinary biologics. Interaction with Canadian regulatory officials continued under the Canada-United States Trade Agreement and the North American Free Trade Agreement. We held meetings with regulatory officials from Australia, the European Union, and Germany to facilitate exchange of information and encourage discussion of regulatory issues. Such discussions led to Brazil lifting a temporary suspension of trade in U.S. ostriches and horses because of West Nile virus in the U.S. Other negotiations achieved a memorandum of understanding with Chile on imports of U.S. fish eggs early in fiscal year 2000.

OUR BUDGET REQUEST

With the tremendous expansion of travel and trade, we must make every effort to keep exotic pests and diseases from entering the United States. Pest and disease threats are always looming. These threats become more real with the actual foot-and-mouth disease outbreaks in the United Kingdom and elsewhere. In our Agricultural Quarantine Inspection—appropriated program, an increase of $5.6 million will increase inspections for high-risk Canadian border ports, pre-departure activities in Hawaii, and expanded border activities in Laredo and Pharr, Texas. An increase of $2.5 million in our trade issues resolution and management program will help resolve overseas barriers to trade and participate in international standard-setting activities. We also will use the increase to conduct import and export risk assessments to protect U.S. animal agriculture from pest and disease threats caused by imports and to support U.S. export requests.

We are requesting a $196.8 million increase to continue eradication efforts in programs that were initially funded from the Commodity Credit Corporation (CCC). These eradication programs include—Mediterraniean fruit fly in Mexico with an increase of $23.2 million in our fruit fly exclusion and detection program; an increase of $37 million for citrus canker, an increase of $49.7 million for Asian long-horned beetle, an increase of $4 million for Pierce's disease, and an increase of $5.1 million for plum pox virus, all requested in our emerging plant pest program; an increase of $30.4 million for pseudorabies; an increase of $17.9 million for scrapie; an increase of $12.9 million for tuberculosis; and an increase of $16.5 million for rabies requested in our wildlife services operations program. We did not feel it was appro-

priate to continue to rely on CCC funding when it became apparent that these programs would require more than 2 years to complete. The use of CCC emergency funding is appropriate for unexpected events, when other budgetary tools cannot meet emergency needs within critical time frames. However, in cases in which the eradication of a particular infestation will take several years, and funding needs can be anticipated and planned for, the use of emergency funds for future years in no longer appropriate.

Our budget also requests an increase of $15.4 million for pay costs. This increase will enable us to maintain current staffing levels. Our staffing is what allows us to continue our exclusion, monitoring, scientific, animal care, and wildlife activities that help protect our American agriculture.

CONCLUSION

Emerging animal and plant health issues, and their real or perceived impacts on public health and American economic interests, will require increasingly sophisticated and appropriate scientific expertise. Before we can control outbreaks of foreign pests and diseases such as citrus canker, Asian longhorned beetle, and West Nile virus, we must understand the biology underlying them. New emergency management responsibilities, threats from bioterrorism, and pressures against use of biotechnology-derived products require new decision models based on assessment of risk. APHIS must develop and use the latest scientific methods and technologies and work closely with scientists around the world to anticipate and understand the nature of emerging health threats to agriculture, wildlife, and people.

"Globalization" will continue to challenge APHIS—capacity to carry out its mission. Implementing and complying with new rules of trade (e.g., scientific risk assessments, equivalency, transparency, regionalization, and dispute settlement) create new responsibilities and demands for services that threaten to outstrip APHIS' current resources. Improved transportation technologies increase the movement of animal and plant pests and diseases. Dramatic increases in international travel, trade, and containerized cargo make total reliance on traditional inspection procedures impractical. We must continue to update detection methods, prevention strategies, monitoring systems, and response actions.

American society's expectations of the Federal Government and APHIS' role create many management challenges. Demands for our services continue to rise. Some are demanding that APHIS become involved in new issues beyond the scope of our traditional mandate. For example, the agency is now being asked to address general animal welfare issues (beyond those authorized under current legislation) and to develop nonlethal wildlife control methods, as more people move into rural areas. At the same time, Americans are looking for a balance between pragmatic solutions to problems and the protection of the environment and the welfare of animals. APHIS will continue to update strategies and methods to ensure that programs are practical, timely, environmentally sound, humane, and socially acceptable.

The Internet and other advances in communication technologies have increased the public's expectations for information. Everyone demands quick access to information about APHIS' services, technical assistance, and regulations. At the same time, there is a growing distance between much of the general public and the agriculture community. As our society moves further away from its agrarian roots, there is a corresponding decrease in the understanding of, and appreciation for, the basic APHIS mission of protecting and promoting animal and plant health. Education and public awareness become increasingly important as APHIS builds support for its programs.

I will be happy to answer any questions.

OFFICE OF INSPECTOR GENERAL

PREPARED STATEMENT OF ROGER C. VIADERO, INSPECTOR GENERAL

INTRODUCTION AND OVERVIEW

Good morning, Mr. Chairman and members of the Committee. I am pleased to have this opportunity to visit with you today to discuss the activities of the Office of Inspector General (OIG) and to provide you with information on our audits and investigations of some of the major programs and operations of the U.S. Department of Agriculture (USDA).

Before I begin, I would like to introduce the members of my staff who are here with me today: Jim Ebbitt, Assistant Inspector General for Audit; Greg Seybold, Assistant Inspector General for Investigations; and Del Thornsbury, Director of our

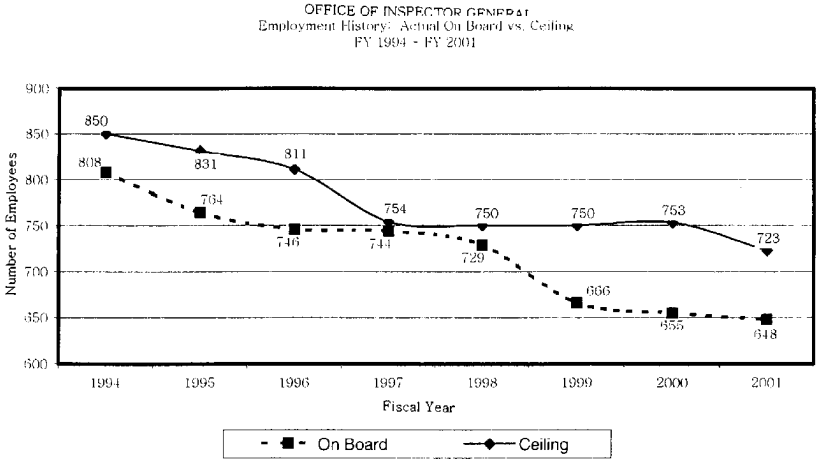
Resources Management Division. I also want to thank the Committee for its support during my tenure as Inspector General. We have tried to work closely with you, and I hope we have been able to address some of your concerns.

I am proud to say that, in fiscal year 2000, we continued to more than pay our own way. In the audit arena, we issued 110 audit reports and obtained management's agreement on 743 recommendations. Our audits resulted in questioned costs of nearly $95 million. Of this, management agreed to recover more than $47 million. In addition, management agreed to put another $268 million to better use. Equally as important, implementation of our recommendations by USDA managers will result in more efficient and effective operations of USDA programs.

OIG investigations resulted in $175.9 million in fines, restitutions, other recoveries, and penalties during the year. Our investigative staff completed 553 investigations, obtained 481 indictments and 459 convictions, and made 2,616 arrests.

While I am very proud of the accomplishments of this organization over the past year, I must add that our results could be much more dramatic. Although I am very appreciative for the increase we received this fiscal year, the overall continuous erosion of our budget in the past 7 years in constant dollars continues to severely limit what we can accomplish. During this time, we have had to decrease our staff by over 150 positions—approximately 20 percent—to offset this erosion. Such a decrease in OIG's audit and investigative staffs results in a decline in our ability to ensure that the taxpayers' dollars, which you appropriate for the Department of Agriculture, are protected from external criminal enterprises, internal corruption, and improper stewardship.

Adequate funding and staffing for our office make good sense and are very cost effective in view of the money we save the taxpayers. While I recognize there is a fierce competition for the Government's limited resources, I believe OIG must be viewed differently from the program delivery missions, in that we are often the last line of defense against compromise of the Department's program delivery and are a significant contributor to the creation of a Government that is accountable and productive. Every OIG special agent and auditor who cannot be hired as a result of the constant erosion of our budget results in "one less cop on the beat" in every agriculture neighborhood across this country. This makes for tough decisions on my part. Which agriculture neighborhood should we leave vulnerable to criminal victimization by shifting our thin line of law enforcement resources to only the highest agricultural priorities? This is a real choice I am forced to make daily because I simply do not have sufficient resources to cover the entire agriculture community. As such, I request that our proposed funding level be approved without reduction.



We work closely with the Department's agencies through our audit work and criminal investigative efforts to ensure that appropriated funds are used efficiently and effectively and program benefit dollars go to those recipients intended by Congress. Generally, we audit and investigate the largest dollar fraud cases since our staffing levels will not allow us to do more. This means there are usually a large number of fraud cases we do not have the staffing to address and which, therefore, must be referred to the agencies to pursue through administrative remedies. However, the agencies do not have resources to address all of these cases, and even more

importantly, many of them should not be handled administratively since they involve fraud. Thus, the underlying result is that a significant amount of criminal activity is not being addressed. This makes it very difficult to turn the tide of fraud in any particular program area. Additionally, in our most recent audit planning seminar, we identified 30 staff-years of work in high priority areas we had to drop from our audit program because we did not have staff available to perform the work. Similarly, we continue to carry a backlog of nearly 750 pending, inactive investigative cases—nearly 30 percent of our total caseload—which we cannot address in addition to our normal caseload of approximately 2,000 active cases.

Our current staffing level also restricts our ability to pursue criminal investigations proactively, generally limiting us to one or two program areas of proactive work per fiscal year. Nevertheless, we continue to work closely with USDA agency officials to address key issues and expand joint operations with other Federal, State, and local law enforcement and audit agencies to broaden the impact of our work. Working together, our staffs identify program weaknesses and program violators.

In my testimony today, I will address the most crucial issues facing the Department and why it is essential that OIG be funded at the level requested.

The safety and wholesomeness of agricultural products provided to the public is our primary concern. OIG is committed to ensuring the health and safety of the American consumer as it relates to agricultural products. Additionally, we will focus our efforts on employee integrity, financial integrity, and information technology and computer security issues, including new statutory requirements such as the Government Information Security Reform Act. That legislation requires annual reviews, beginning in fiscal year 2001, of the Department's information security program, most notably an evaluation of the effectiveness of security control techniques for a sample of the systems. We need the necessary resources to broaden our scope of work in these areas and pursue an audit and investigative enforcement strategy resulting in the greatest impact on these critical programs.

AUDIT AND INVESTIGATIONS ACTIVITIES

HEALTH AND SAFETY

Our audits and investigations continue to identify problems in domestically produced foods including contaminated food, misbranded products, and uninspected meat or other products. We also are seeing an increase in problems in imported food products or other commercial shipments legally imported into the United States, as well as shipments smuggled into the United States containing banned products and, frequently, dangerous pests. OIG's resources, especially our investigative resources, are increasingly overextended. OIG is often required to pull its special agents from current investigations of large dollar frauds in USDA's benefits and loan programs to investigate criminal activity that threatens the health and safety of the public.

We must also address domestic and international criminal terrorist threats to the security of our Nation's food supply. This problem has been recognized as a major concern by the Department of Justice (DOJ) and Congress, as well as OIG. Threats of intentional biological contamination of food products for extortion or ideological motives victimize and disrupt the food production and distribution systems of this country. Immediate response to emergency situations impacting USDA personnel, programs, and operations, as well as regulated industries, requires the specific, unique law enforcement expertise of USDA OIG.

Recently, successful prosecutions of criminal enterprises have included a multiagency sting operation in San Francisco, which netted three importers who attempted to bribe a Government official to expedite the entry of their food shipments from Hong Kong into the United States without the required inspections. The other two importers pled guilty, one to receipt of adulterated food in interstate commerce and the other to importing adulterated product and bribery. A Federal jury found the third importer guilty of bribery, money laundering, smuggling, entry of adulterated foodstuffs, and conspiracy. He was the leader and organizer of this criminal activity and had obstructed justice by providing false testimony at his trial. Because of the serious risk to public health and safety caused by the smuggling of salmonella-laden seafood into the country, the judge also granted the Government's motion for upward departure from sentencing guidelines. This case resulted from work initiated by the San Francisco Interagency Import Task Force, which has been targeting firms involved in illegally importing plants and animals that may present a threat to America's food supply. This investigation alone cost OIG approximately $350,000 in personnel, travel, and equipment costs.

Based on notification by the California Department of Food and Agriculture that a Los Angeles agricultural products import firm may have smuggled tons of Mexican sweet limes into the United States, we initiated a joint criminal investigation with

the U.S. Customs Service. In June 2000, a 27-count indictment was filed, charging three individuals and two firms with conspiracy, smuggling, and aiding and abetting. Two of the three indicted subjects have been arrested, with one awaiting trial and one convicted on charges relating to the transport of various agricultural products, including Mexican sweet limes, into California from Mexico. Laboratory examination showed that a substantial portion of the illegally imported Mexican sweet limes was infested with Mexican fruit fly larvae.

We are also concerned with the large number of repeat offenders that USDA and State regulatory agencies have to deal with on a regular basis. Civil fines and administrative sanctions have simply become an additional "cost of doing business" for those repeat offenders who seek to skirt the dedicated efforts of the Department's regulatory agencies. These cases involve the smuggling of agricultural products, illegal meat processing operations, the deliberate introduction or threatened introduction of biological agents to attack this Nation's food supply, and assaults on employees in the Department's regulatory agencies as they carry out their official duties.

For example, in one recent ongoing investigation, an anonymous letter containing an unknown powder alleged to be anthrax was sent to the owner of a federally inspected meat plant. Fortunately, the powdery substance was benign; however, it caused great concern for those plant employees who were exposed to the substance. It also caused economic disruption to the operation of the plant, which was forced to close for a half day until the identity of the substance could be determined through laboratory testing and the meat plant could be properly decontaminated. This hoax cost the plant thousands of dollars in lost production, hospital costs, and destroyed product. We cannot put a price tag on the anxiety caused to the plant employees while they wondered if they had been truly exposed to anthrax.

In another recently completed investigation, we identified a corporation smuggling prohibited uninspected meat products into the United States. The foreign country where these meat products originated is prohibited from exporting them into the United States due to numerous livestock diseases, such as foot-and-mouth disease, and sanitation concerns in their manufacturing plants. Such products pose a serious health hazard to the general public and livestock industry in America. On five previous occasions, the company had been caught by two separate USDA regulatory agencies smuggling these illegal meat products into the United States. On each of these occasions, the products were destroyed, and the company received a small fine. Recently, my office received information that the corporation was again importing these illegal, dangerous products. We have initiated a criminal investigation with DOJ to put an end to this flagrant skirting of the USDA regulatory process and ensure the protection of the public's health.

While we continue to respond as quickly as we can, I am concerned that our efforts to respond to these incidents are severely hampered by a lack of personnel; proper protective equipment, such as biohazard suits and breathing equipment to ensure the health and safety of our staff, and specialized forensic equipment to gather evidence samples; and funding for specialized training on how to recognize and properly handle biohazardous materials.

In addition to our investigative work, we have completed a series of audits to determine if the Food Safety and Inspection Service (FSIS) has successfully implemented the new science-based Hazard Analysis and Critical Control Point (HACCP) system for inspecting meat and poultry in the United States. Our initial review included the implementation of HACCP, laboratory analyses, foreign imports, and the compliance program that carried over from the previous system. We found that while FSIS had taken positive steps to secure the safety of meat and poultry products, more needs to be done in all four areas reviewed. Overall, we concluded FSIS had reduced its oversight to less than what is prudent and necessary for the protection of the consumer.

Based on these findings, we made numerous recommendations to FSIS for program improvement, and it has agreed to implement those recommendations. However, because FSIS' record in fulfilling promises of implementation is weak, we need a continued audit presence to monitor and ensure implementation of the recommendations. In addition, we are expanding our audit review of FSIS' program on meat and poultry products imported to the United States. We are also performing additional work to assess the equivalency determinations FSIS makes of foreign countries' inspection systems and to determine if FSIS' reinspection of foreign imports is working as intended. Even as we begin this work, we are worried that we will be unable to complete both this new audit and monitor implementation of the earlier recommendations with current staffing levels. We are concerned that if we are not able to do adequate monitoring and FSIS does not implement these recommendations, the U.S. food supply will be at risk.

Antismuggling Program

The escalation of smuggling activity involving food products has forced us to shift our resources to this arena. Such smuggling brings high dollars in underground "black market" commerce and is an increasingly serious problem to the Nation and especially to the economy of many agricultural States. Smuggling can and has resulted in the introduction of harmful exotic plant and animal pests, diseases, and invasive species which harm America's crops, forests, food supply, livestock, wildlife, and domestic animals, as well as the health of the American consumer. Such illegal activity can cost billions of dollars in destroyed crops and undermined agricultural markets—both foreign and domestic—and result in lost jobs, as well as create a serious health threat to the American consumer.

To combat the ever-increasing smuggling activities, OIG has developed a three-pronged strategic approach which relies heavily on an expanded relationship with State, local, and Federal agriculture and law enforcement agencies. However, our antismuggling program has been limited due to our lack of resources, which I have described previously. Additional staffing is needed for these proactive initiatives, along with the necessary specialized law enforcement equipment.

We also audited APHIS' Plant Protection and Quarantine (PPQ) practices for inspecting air and ship cargos and passengers arriving at the Miami and Ft. Lauderdale, Florida, ports. We identified vulnerabilities and weaknesses which increased the risk of prohibited products and pests entering the United States. OIG observed that PPQ inspectors did not inspect cargo ships upon arrival; did not inspect the baggage of 75 percent of arriving international airline passengers and 99 percent of cruise ship passengers arriving from foreign locations; did not assess fines as a deterrent against airline and cruise ship passengers found to have prohibited agricultural items in their possession when entering the United States; did not select samples of perishable cargo for inspection but, instead, allowed brokers to select the samples; nor did they ensure that caterers met all foreign arriving aircraft immediately upon arrival to remove, in seal-proof containers, any food or nonfood garbage.

We recommended that APHIS assess penalties when warranted and determine if higher inspection fee rates were necessary to provide for sufficient resources. We recognize, as does APHIS, that inspections are resource-intensive, and that risks need to be assessed to determine where scarce resources should be directed. APHIS believes that airports handling international passengers pose the greatest risk. However, it has not presented OIG with a risk assessment that supports that contention, nor has it presented an assessment indicating additional staffing is needed because risks are inherent at both airports and seaports.

Because of this audit and our concern with the smuggling into the United States of prohibited products, we have begun a broad-based review, evaluating APHIS' policies and procedures for identifying and assessing risk among the various agricultural goods imported into the United Sates. We also are reviewing the interaction between APHIS and the U.S. Customs Service to review the measures employed to detect pests that may enter the United States in both agricultural and non-agricultural related products. Our goal is to make recommendations that will help APHIS do its job better.

EMPLOYEE INTEGRITY

A continuing priority for OIG is the investigation of criminal acts committed by USDA employees. We have identified approximately 55,000 USDA employees whose positions place them in direct contact with the public on a regular basis, doing everything from inspecting meat and grading produce to providing loans and other program benefits. The only way to maintain the confidence of the taxpayers, consumers, and producers who use or rely on the Department's services is to know that USDA has a trusted and dedicated work force. And, while we want to emphasize that the evidence shows, and we firmly believe, that the highest percentages of these employees do their job with the utmost integrity, to maintain that trust, internal controls must be in place and operating. To quote a great American, Dwight D. Eisenhower, "the unaudited deteriorates."

One case that demonstrates a situation where those controls broke down is our continuing investigation of the scheme by which Agricultural Marketing Service (AMS) graders accepted bribes from produce wholesalers at the Hunts Point Market in New York City in return for downgrading produce. It also graphically demonstrates how corruption can have a major impact on the daily commerce of this country. This kind of investigation is very staff intensive and requires the use of specialized technical equipment, such as listening devices that are wired into the electrical system for long distance coverage. We currently have a significant number

of corruption investigations similar to this one. This is an area where we must be ever vigilant, and where we simply must have the right tools and sufficient staffing to stop corrupt USDA employees from continuing their criminal activities.

FINANCIAL INTEGRITY

While some of the Department's agencies have achieved success with their financial systems and received clean financial opinions, other major systems have not. The Food and Nutrition Service (FNS), the Risk Management Agency (RMA), and the Rural Telephone Bank received unqualified opinions in fiscal year 2000, which means their financial statements fairly presented their financial position. But the Forest Service (FS) and the Commodity Credit Corporation (CCC) were unable to complete their financial statements in time for us to audit them by the legislatively mandated timeframe of March 1. Also, Rural Development has not been able to properly determine the cost of their loan programs. Thus, it received a qualified opinion.

The individual conditions of the agencies when taken together mean that for the past 7 fiscal years—1994 through 1999 and in our just released audit for 2000—we have issued a disclaimer of opinion on the Department's consolidated financial statement. This disclaimer means that the Department overall does not know whether it correctly reports all collected monies, the cost of its operations, or other meaningful measures of financial performance. Most importantly, some USDA managers do not have reliable financial information regarding how much has been spent on the cost of program operations and are being forced to make decisions "in the dark" without solid financial data. Not only can flawed decisions result, but the integrity of program dollars is put at risk of misuse or theft. Given USDA's annual budget authority of about $82 billion dollars in fiscal year 2001, the importance of having a strong financial reporting capability cannot be overstated.

The main problems that USDA has to solve to improve its financial accounting which will result in improved opinions on these financial statements include: FS needs to improve its accountability and evaluation of its assets; Rural Development, CCC, and the Farm Service Agency (FSA) need to perfect models and gather the necessary data to support implementation of the model that will accurately reflect the costs of their loan programs; and the Department needs to complete implementation of its new accounting system—the Foundation Financial Information System.

These major problems contribute to conditions that keep the Department from achieving a clean audit opinion. For example, we have been unable to substantiate the Department's fund balance with the Department of Treasury reported at over $38 billion. This account represents monies that can be spent in the future for authorized transactions. Last year we reported that Treasury records and the Department's records were out of balance by $5 billion. At the close of fiscal year 2000, the difference had been reduced to about $450 million. In other words, the Department still has reported differences with Treasury of this amount, $450 million, and does not know the reason why. Think of this in terms of your personal checking account. Your check register says one thing but the bank says you spent a higher amount, and you cannot figure out the difference.

FS has been impaired by a lack of accountability over its assets. Historically, it has not been able to develop a meaningful asset valuation because it did not know what assets had been acquired, when the assets were obtained, or how much they cost. While FS has improved in recording assets, asset valuation continues to be a problem. To overcome this problem, FS needs to undertake an extraordinary level of effort to establish accountability and develop acceptable accounting records in order for agency management to fulfill its financial management and stewardship responsibilities.

While the Department is working toward overcoming past encumbrances to an unqualified audit opinion, aggressive action is still needed to foster meaningful financial management as soon as possible. All of this activity significantly impacts OIG's resources. We have had to devote far more effort to the legislatively mandated audits of financial statements than envisioned by Congress because of the systemic weaknesses that have generated unauditable statements. While it may seem paradoxical, the demand on our resources will actually increase—not abate—as the Department moves closer to auditability because we will have much more to audit than we have had in the past. For the fiscal year 2000 financial statement audits, we scheduled more than 70 auditors—over one-third of our audit staff—full time, for these audits. We estimate that the workload demands will require us to increase our financial staff to 90 auditors—about 40 percent of our audit staff—as we begin the fiscal year 2001 financial audits. In the absence of additional staff, critical program activity will go unaudited as we fulfill our statutory financial audit require-

ments. Additionally, these audits require the use of specialized data-mining software along with expert training for the auditors who use it. If these critical resource issues are not addressed, our ability to complete the statutory financial statement audits will erode, and we will not be able to audit other high-priority areas.

INFORMATION RESOURCES MANAGEMENT

Computer Security

Our fourth area of major concern is securing the availability, accuracy, and privacy of information in the Department's information technology systems. This remains a significant challenge for the Department. USDA agencies continue to expand their use of the Internet to provide services and information to the public, commonly referred to as "e-government." E-government offers extensive possibilities for the Department to improve its delivery of services, collect information, and manage its operations. USDA has numerous information assets that include market-sensitive data on the agricultural economy and commodities, signup and participation data for programs, personal information on customers and employees, and accounting data. These information and related systems face unprecedented levels of risk from intentional or accidental disruption, disclosure, damage, or manipulation.

Based on our audits, we believe significantly more action is needed to strengthen departmentwide information security. While the Department has been responsive to our recommendations, initiating prompt fixes to the vulnerabilities we have reported, additional work must be done. We have only been able to look at a few of the hundreds of systems within the Department. Information in USDA databases is market sensitive and, if misused, could cause economic chaos and harm prices farmers receive. USDA also operates the National Finance Center (NFC) in New Orleans. NFC pays salaries and other expenses exceeding $23 billion each year. It also houses the database for the Thrift Savings Program, which has assets of over $100 billion. We must ensure all of these assets are safeguarded and information is protected.

The demands on OIG's resources in this area are increasing significantly. As I mentioned earlier, Congress passed the Government Information Security Reform Act, requiring annual reviews beginning this year of the Department's information security program. Each review must include an evaluation of the effectiveness of security control techniques for a sample of the Department's systems. These audits are extremely complex and costly because the auditors need specialized training and sophisticated software to perform them. At current funding levels, OIG will be hard-pressed to fulfill this legislative mandate.

When we have been able to do work "up front" on computer systems, it has resulted in a success for the agencies developing the systems. We did this with FNS and the States as they were implementing Electronic Benefits Transfer (EBT) systems in the Food Stamp Program (FSP) and, as a result, EBT is a success for us and FNS as well as the States. It is now much easier to detect retailers who harm the program by buying benefits at half their cost or less, rather than selling food. With EBT, you can more readily pinpoint when and where this happens.

Currently, 41 States and the District of Columbia use EBT systems. Thirty-seven of the systems have been implemented statewide, and approximately 74 percent of food stamp benefits, estimated at $12.6 billion for fiscal year 2001, are issued through such systems. During fiscal year 2000, we completed reviews in Florida, Louisiana, North Dakota, South Dakota, and Utah and found all systems have been successfully implemented.

All EBT systems to issue food stamp benefits must be in place by October 2002. To date, one-quarter of the benefits are not under an EBT system, and some States are either only partially under EBT or are in the process of converting. Some, such as California, Michigan, Mississippi, New York, and Virginia, have significant caseloads which will greatly affect their conversion. Thus, we must remain proactive in our approach to reviewing systems as they are implemented when adjustments and changes are more easily addressed.

OTHER MAJOR CHALLENGES FACING USDA

Food, Nutrition, and Consumer Services

The national food stamp certification error rate for fiscal year 1999, the last year completed, stands at 9.9 percent; while lower than in 1998, it still accounts for dollar-issuance errors of about $1.6 billion, with overissuances being $1.1 billion of that amount. Yet, the number of dollars issued and participating households are going down. School districts are also finding high rates of error in households certifying their eligibility for free or reduced-price lunches. Recent statistics assembled by FNS for some selected States showed an error rate of about 20 percent. In Illinois alone,

OIG found this accounted for excess program outlays of about $31 million in 1 school year. Other U.S. departments, such as Education and Health and Human Services, also use the school lunch data as a basis for distributing program funds, so the impact goes far beyond USDA. These areas need our attention, but we simply do not have the resources necessary to address this issue now.

Operation Talon

For more than 3 years, OIG has coordinated a nationwide law enforcement initiative dubbed "Operation Talon," which has resulted in the arrest of over 7,000 fugitive felons. This initiative, which has been carried out in conjunction with other law enforcement agencies and State social service agencies across the country, was designed to identify, locate, and apprehend dangerous and violent fugitive felons who may also be illegally receiving benefits through FSP. Operation Talon has grown into a nationwide dragnet, currently encompassing fugitives wanted in 29 States, as well as Federal fugitives sought by the U.S. Marshals Service. The more serious offenses for which Operation Talon fugitive arrests have been made include 32 arrests for homicide; 48 for sex offenses, including rape and child molestation; 15 for kidnapping/abduction; 390 for assault; 213 for robbery; and 1,604 for drug/narcotic offenses. A number of States are removing arrested fugitives from their food stamp rolls, resulting in an estimated average savings to FSP of over $12.6 million. We have managed to leverage our success through the use of targeted asset forfeiture funds to pay for overtime costs and special equipment needs of the State and local law enforcement agencies participating in Operation Talon. However, since its inception 3 years ago, this program has cost OIG over $4.3 million in direct appropriated funds to spearhead Operation Talon in neighborhoods across America.

CROP INSURANCE

Based on our prior audit efforts, we believe the management of the Department's crop insurance programs will continue to provide challenges. Congress recognized the need for Federal Crop Insurance Program reform when it passed the Agricultural Risk Protection Act of 2000 (ARPA). This Act requires the Secretary to reduce the potential for fraud, waste, and abuse in the program by mandating the exchange and comparison of relevant information received by RMA and FSA in the conduct of their respective production agriculture programs. Our audits have indicated weaknesses in the research and development of new types of crop insurance policies; conflicts of interest involving the insureds, insurance agents, and the loss adjusters; noncompliance with loss claim procedures by the loss adjusters; and inadequate quality control reviews by the insurance companies.

To meet that congressional mandate, RMA and FSA have established working groups to implement the provisions of ARPA, including data reconciliation, FSA assistance in monitoring crop insurance programs, and RMA consultation with State FSA committees in formulating crop insurance policies and plans of insurance. Currently, OIG is assisting these working groups as they develop the framework to implement the congressional mandate. As RMA and FSA implement these controls, we will need to monitor and test them to ensure they are adequate and functioning as intended and provide timely feedback to RMA and FSA. We believe this proactive approach and working with the agencies early on will be more effective and result in greater cost savings to the Government than trying to recover incorrect payments.

BUSINESS AND INDUSTRY LOAN PROGRAM

In fiscal year 2000, delinquency rates rose sharply in the Rural Business-Cooperative Service's Business and Industry (B&I) guaranteed loan program. Fiscal year 2001 funding in this program increased to over $3 billion, tripling fiscal year 2000 levels. We believe the Department is facing the possibility of a dramatic increase in financial losses to the Government in this area. Factors, such as the growing presence of unregulated financial organizations—or nontraditional banks—with unorthodox financing and servicing arrangements that can mask delinquencies until a total financial failure occurs, make some of these loans even riskier to the Department.

Ongoing nationwide audit work in this area is disclosing significant problems. We are expanding our efforts into a special initiative to assess the extent of this burgeoning problem and will make appropriate recommendations for needed legal, regulatory, and administrative changes.

In prior years, we audited defaulted B&I loans whenever the loss to the Government exceeded $3 million. Frequently, these audits prevented USDA from paying fraudulent claims. However, staffing shortages now prevent our audit of all but the

most egregious loss claims. Additional resources would allow more audits in this high-risk area and identify potentially fraudulent and abusive loss claims, resulting in the prevention of substantial funds from ever leaving the Department in payment of fraudulent claims.

RURAL HOUSING PROGRAM

The Department's Rural Housing Program is another effort which will continue to need attention by the Department. The American Homeownership and Economic Opportunity Act of 2000 was signed into law on December 27, 2000. It strengthened the ability of Rural Development to seek prosecution of individuals, both civilly and criminally, who abuse and defraud the Multi-Family Housing Program. Many of the reforms enacted will directly address the problems found in our nationwide initiative with the Rural Housing Service that identified and documented significant abuse and fraud in the Multi-Family Housing Program.

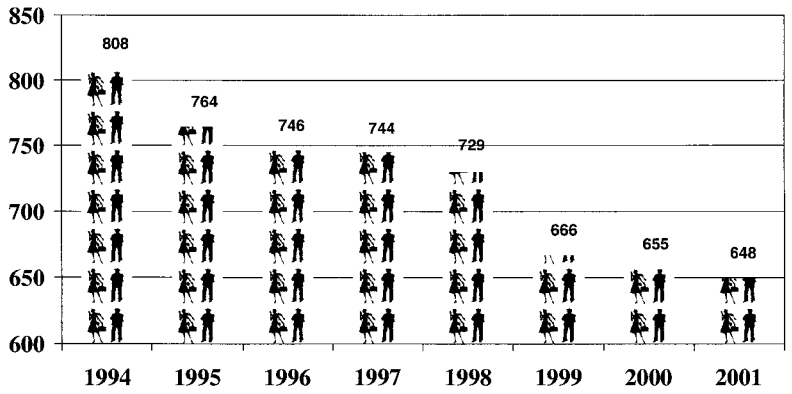
We are continuing substantial audit and investigative efforts in this area to include cooperative efforts with DOJ to encourage acceptance of these cases for prosecution. The passage of the new legislative authority significantly increases the chances for successful prosecution.

CONCLUSION

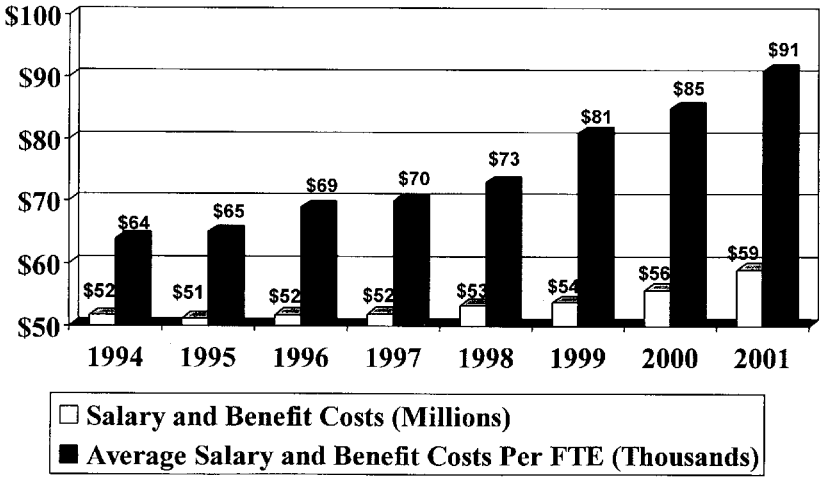
We are proud of our record and accomplishments at OIG. We continually assess where the risks for waste, fraud, and abuse are in the Department and direct our limited resources to those we judge to be at the highest risk. The question is, do we have sufficient resources to address all or even the majority of those area that are vulnerable and at risk? As I have indicated today, the answer is clearly, no.

This concludes my statement, Mr. Chairman. I appreciate the opportunity to appear before you today and would be pleased to respond to any questions you may have at this time.

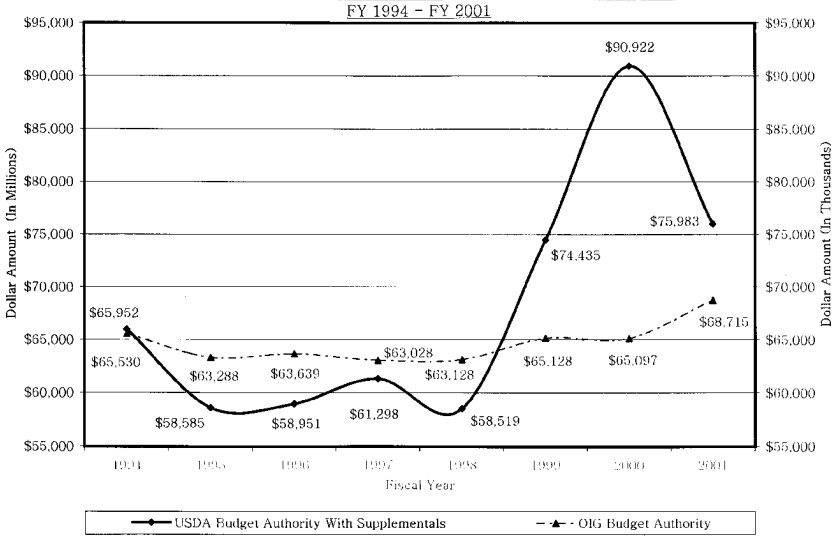
OFFICE OF INSPECTOR GENERAL
Employment History: Actual On Board (EOY)
FY 1994 – FY 2001



OFFICE OF INSPECTOR GENERAL
Salary and Benefits Costs vs. Average Cost Per FTE
FY 1994 – FY 2001



U.S. DEPARTMENT OF AGRICULTURE - OFFICE OF INSPECTOR GENERAL
USDA Budget Authority With Supplementals vs. OIG Budget Authority
FY 1994 - FY 2001



FOOD SAFETY AND INSPECTION SERVICE

PREPARED STATEMENT OF THOMAS J. BILLY, ADMINISTRATOR

Mr. Chairman and Members of the Subcommittee, I am pleased to have the opportunity to submit a statement for the record on the current status of Food Safety and Inspection Service (FSIS) programs and on the fiscal year 2002 budget for food safety within the U.S. Department of Agriculture.

Let me begin by saying that the risk-based modernization of the meat, poultry, and egg products inspection programs begun in 1996 has resulted in significant food safety improvements. Reductions in the prevalence of many microbiological contaminants, such as Salmonella, have occurred across all categories of meat and poultry products, and these have been accompanied by reductions in foodborne illness. These improvements would not have been possible without the consistent support of you, Mr. Chairman, and the Members of the Subcommittee. This support has enabled FSIS to complete implementation of the Pathogen Reduction/Hazard Analysis and Critical Control Points (HACCP) Systems rule and to consolidate the resulting gains into a sound plan for the future.

With HACCP in place, FSIS now has two major goals—first, to determine how we can assist in improving the quality and effectiveness of industry food safety programs, including HACCP, and second, to determine how FSIS can improve its effectiveness as a public health regulatory agency. We've identified five major areas of focus related to these goals.

The first area involves the Agency's infrastructure and resources. FSIS' infrastructure needs to be improved to allow its workforce to carry out its regulatory responsibilities more effectively and efficiently. This is a very broad area that encompasses the assignment of work, increasing expertise and training, and enhancing data analysis and decision-making, communication, and workplace environment. Making these improvements requires a reevaluation of where and how the Agency executes its programs and utilizes its resources. This assessment is underway, and I will elaborate on its details later on in this statement.

The second area of focus supporting our future goals is in the design and effectiveness of a risk-based food safety and inspection program. This area includes aspects of our modernization strategy that have been on a slower track due to our intensive focus on HACCP and Pathogen Reduction implementation. Regulatory reform, in-plant staffing patterns, residue control in a HACCP environment, and overall improvements in the Agency's ability to respond to future food safety problems will receive considerable attention as we move forward.

Third, the Agency is committed to improving the workplace environment for its employees. This includes improvements in worker safety, quality of work life, and workforce diversity.

Fourth, FSIS must focus its training and education needs on the scientific rationale for regulatory decisions and commit to whatever means are necessary within available resources to make training and education available to all employees.

And finally, we will focus on improving how we communicate within the Agency and with the regulated industry. FSIS needs to ensure that its rules, procedures, and other regulatory information are clear, complete, easily understood, and accurate.

This gives you a brief synopsis of our recent successes and thoughts on the Agency's future. I will elaborate on our future plans later in my statement, but before I do, let me first provide some context to the importance of these plans by briefly reviewing the mission and history of FSIS.

FSIS OVERVIEW

The mission of FSIS is to ensure that the Nation's commercial supply of meat, poultry, and egg products is safe, wholesome, and correctly labeled and packaged, as required by the Agency's authorizing statutes. The FSIS Strategic Plan for 2000–2005 calls for a further 25 percent reduction in the number of foodborne illnesses resulting from consumption of products the Agency regulates. Although existing public health data make it difficult to isolate specific contributions to achieving an overall reduction in foodborne illness, we can and do take specific action to control and monitor the prevalence of the foodborne hazards that can cause illness. Our goal is therefore to protect the public health by significantly reducing the prevalence of foodborne hazards in meat, poultry, and egg products.

FSIS has a long, proud history of protecting the public health. Although the Agency under the current name was established by the Secretary of Agriculture on June 17, 1981, its history dates back to 1906.

In 1890, the U.S. passed a meat inspection law to assure European markets that meat from the United States was safe. However, the Meat Inspection Act of 1906 signaled the real beginning of domestic inspection in the United States. A year earlier, Upton Sinclair published his book, The Jungle, portraying unsanitary conditions in Chicago slaughterhouses. The book caused a public and political outcry. Meat sales around the country dropped nearly a third. With the 1906 Act began a system of continuous daily inspection in slaughterhouses using organoleptic (sight, smell, touch) inspection to detect unsanitary conditions and adulterated products. Poultry inspection began in 1926, on a voluntary basis, and in 1957, Congress passed the Poultry Products Inspection Act, which established mandatory, daily, continuous inspection of poultry products. Since 1994, FSIS has had additional food safety responsibilities under the Egg Products Inspection Act.

FSIS published the landmark Pathogen Reduction/Hazard Analysis and Critical Control Point (HACCP) Systems rule on July 25, 1996. The rule addresses the limitations of the original organoleptic inspection system in dealing with the problem of pathogenic microorganisms (harmful bacteria) on meat and poultry products. The rule clarifies the respective roles of government and industry in food safety, and therein makes better use of government resources in addressing food safety risks. Industry is accountable for producing safe food. Government is responsible for setting appropriate food safety standards, maintaining vigorous inspection to ensure those standards are met, and maintaining a strong enforcement program to deal with plants that do not meet regulatory standards.

INFRASTRUCTURE

With HACCP in place, FSIS has reached a major milestone in the evolution of the Nation's food safety and inspection program. The HACCP rule is not simply a new regulation, but a new way of doing business that enables FSIS to focus its attention and resources on the most significant food safety hazards. It serves to prevent food safety hazards rather than catching them after the fact. And HACCP never goes out of date, because it can be adapted as new scientific information comes along. Thus, HACCP serves as a foundation for continual improvement.

As I mentioned earlier, one major area for improvement is to strengthen the FSIS infrastructure to better support HACCP. This is necessary in order to ensure that we focus our inspection efforts on those aspects of meat, poultry, and egg product production that present the greatest food safety concern. This requires FSIS to rethink its approaches to both slaughter and processing inspection. The Agency has launched a number of initiatives to do so. Before I describe them, let me first briefly review with you the major functions of USDA's food safety program. Each of these functions bears further elaboration, which I will do later as I describe current and planned initiatives associated with each.

Meat, Poultry, and Egg Inspection Activities

As you know, FSIS is a large agency, with approximately 10,000 employees. This includes more than 7,600 inspection personnel stationed in approximately 6,000 meat and poultry plants who inspect more than 8.5 billions birds, 133 million head of livestock, and 3.5 million pounds of liquid egg products annually. In fiscal year 2000, FSIS facilitated the export of an estimated 10 billion pounds of meat and poultry to approximately 100 countries throughout the world and began work on a new system to automate the certification of meat and poultry exports. Agency personnel also inspected 3.7 billion pounds of imported meat and poultry from 31 countries, of which 9 million pounds were refused entry into the United States. Eight million pounds of egg products were imported from Canada, of which 423 pounds were refused entry. Canada, and The Netherlands, remain the only countries certified to export egg products to the United States, and The Netherlands exported no egg products to this country last year. Mexico applied for export eligibility in fiscal year 2000.

To ensure the safety of imported products, FSIS maintains a comprehensive system of import inspection, linking all U.S. ports of entry through a central computer system. This allows FSIS to establish compliance histories for countries and plants exporting to the U.S. and to communicate instantly among ports when problems are found at any individual port of entry. This system is one part of FSIS' efforts to verify the effectiveness of foreign inspection systems and also to support our sister agency, the Animal and Plant Health Inspection Service (APHIS) in preventing the entry of meat or poultry products that present an animal disease threat to U.S. livestock.

In light of recent events in Europe, the manner in which FSIS certifies foreign programs as possessing public health safeguards that are "equivalent" to the U.S. program is a subject of heightened interest. Annually, we review all foreign inspec-

tion systems in countries eligible to export meat and poultry to the U.S. In fiscal year 2000, FSIS reviewed the documentation of and performed on-site audits in 31 countries exporting meat and poultry products to the United States and was satisfied that each country had implemented Sanitation Standard Operating Procedures (SSOPs), HACCP systems, and Salmonella testing programs.

FSIS is also responsible for assessing State inspection programs that regulate meat and poultry products that may be sold only within the State in which they were produced. The 1967 Wholesome Meat Act and the 1968 Wholesome Poultry Products Act require State inspection programs to be "at least equal to" the Federal inspection program. If a State chooses to end its inspection program or cannot maintain the "at least equal to" standard, FSIS must assume responsibility for inspection. There are currently 27 states that have a state meat or poultry inspection program and operate under cooperative agreements with FSIS. In these states, Federal funding is provided for up to one-half of the state's cooperative inspection program as long as the State maintains a program "at least equal to" the Federal program.

In the past few years, some states have decided to re-establish inspection programs. Minnesota established a state inspection program on October 1, 1998, followed by North Dakota on October 1, 2000, and Missouri on January 1, 2001. The only state to terminate its inspection program in recent years was Alaska, which ended its state program on July 30, 1999. In fiscal year 2000, FSIS reviewed 87 state-inspected establishments in 13 states.

Another part of the FSIS food safety program involves our three multidisciplinary laboratories, which conduct laboratory testing for microbiological contamination, chemical and antibiotic residues, pathological conditions, processed product composition, and economic adulteration. FSIS performed tests on more than 371,000 product samples in fiscal year 2000.

FSIS also conducts compliance and enforcement activities to address situations where unsafe, unwholesome, or inaccurately labeled products have been produced or shipped. The objective of these activities is two-fold—one, to make a critical appraisal of compliance with meat and poultry regulations, and two, as a result of certain critical appraisals, to take enforcement action where necessary. In fiscal year 2000, more than 50,000 compliance reviews were conducted. As a result of these reviews and other activities, approximately 28 million pounds of meat, poultry, and egg products were detained for noncompliance with the respective laws, and eight criminal convictions were obtained against firms and individuals for violations of the meat and poultry inspection laws. In addition, industry voluntarily recalled more than 5 million pounds of meat, poultry, and egg products.

With the shift in recent years toward greater mass production and distribution of food, and greater globalization in food trade, the identification and tracking of potential food hazards has become a much more complex activity. In response, FSIS has developed strong partnerships with state, local, and foreign public health agencies and stakeholders to better coordinate the investigation of and response to food safety hazards and outbreaks of foodborne illness. These partnerships are vital to FSIS' ability to effectively perform its public health mission.

Given the strength of the economy in recent years, and commensurate increases in industry growth, FSIS has been challenged in its ability to hire and train enough qualified personnel to meet growing demands for in-plant inspectors, while at the same time ensuring a full conversion of all plants to HACCP-based operations. We are grateful, Mr. Chairman, that in fiscal year 2000, Congress provided FSIS with an additional $11 million, which we used to hire 203 new, permanent, full-time (PFT) inspectors in meat and poultry slaughter plants. This funding also enabled us to add other-than-permanent staff years to the inspection work force in order to provide plants with relief personnel on an as-needed basis. This additional hiring activity enabled FSIS to meet its targeted inplant employment level of 7,610 in fiscal year 2000—a minimum level that the Agency, within current baseline funding, plans to maintain to satisfy industry's expected demand for increased inspection services throughout fiscal year 2001 and fiscal year 2002. I would like to point out, Mr. Chairman, that as of March 31—the end of the second quarter of fiscal year 2001—FSIS in-plant employment had reached 7,630.

Field Automation

The Agency's Field Automation and Information Management (FAIM) initiative is the major vehicle by which FSIS is providing its workforce with the technology tools to support HACCP-based regulatory determinations and actions in the field.

The end of fiscal year 2000 represented a milestone for the Field Automation and Information Management (FAIM) initiative. FSIS completed implementation of the Federal FAIM initiative on schedule and under budget. In fiscal year 2001, FAIM

is beginning a cycle of replenishing original equipment. That cycle will continue in fiscal year 2002.

In its first five years, FAIM distributed more than 4,200 desktop and notebook computers and trained more than 5,400 FSIS inspection personnel. An automation program of this scope demands ongoing support activities to realize gains from the initial investment. Each FAIM user must be provided with technical support, hardware maintenance, telecommunications, supplies, and an expanded collection of software applications and computer-based training. Employee turnover means training new people.

The replenishment cycle includes replacing hardware and peripherals that were purchased five years ago. While the recommended replacement schedule for office computers is every three years, FAIM has stretched its cycle to five years. For FSIS inspection personnel to continue running standard operating systems and software applications, their systems must be replaced with newer equipment.

New Statutory Requirements

As part of the fiscal year 2001 Appropriations Act, FSIS acquired additional regulatory responsibilities in the form of mandatory ratite and squab inspection. The Agency has begun the process of converting the current voluntary program to a mandatory one. An interim final rule is being developed to ensure that appropriate regulations are in place on April 26, 2001, the statutorily established date of enactment.

TARGETING RISK IN THE FOOD SAFETY AND INSPECTION PROGRAM

A key component of FSIS' effort to increase the resources available to support HACCP is the implementation of the HACCP-based Inspection Models Project, or HIMP. As the Committee may know, HACCP alone does not change the role of the slaughter inspector. Under HIMP, FSIS has been developing new models for slaughter inspection that better define what FSIS inspection personnel and industry should do under the HACCP-based system. For the past two years, volunteer plants are extending their HACCP and other process control systems to cover certain sorting activities that had been done by FSIS inspectors. Plants having such systems in place to prevent meat and poultry products that are unsafe or unwholesome from entering the food supply are also required to meet FSIS performance standards for food safety and other consumer protections and carry out these activities under FSIS inspection and verification. Based on preliminary data, this system of establishment controls and Agency inspection shows great promise for increased food safety. The new system, which the HIMP project is intended to test, allows slaughter establishments greater flexibility in meeting their responsibilities under the Pathogen Reduction/HACCP regulations and permits FSIS to deploy its inspectors more effectively.

To begin the process of better defining what inspection personnel and industry should do under HACCP, on June 10, 1997, FSIS published a Federal Register notice explaining the HIMP project and soliciting public input. Four public meetings have since been held to obtain feedback on draft inspection models, review diseases and conditions identified by the Agency as posing food safety risks, clarify new inspection procedures and performance standards developed through the project, and review preliminary industry performance data.

As the Subcommittee members are aware, a group of FSIS inspectors, their union, the American Federation of Government Employees (AFGE), and a consumer group filed a lawsuit challenging the HIMP project. On June 30, 2000, the District of Columbia Circuit Court of Appeals ruled that the type of "oversight inspection" performed by Federal government inspectors in HIMP plants violated the FMIA and PPIA.

Following the Court of Appeals' ruling, FSIS, in September 2000, redesigned the HIMP project to position an FSIS carcass inspector in a fixed location on each slaughter line. The most recent court decision, in January 2001, found that the redesigned HIMP inspection model met statutory requirements. The union has appealed this latest decision, but plants continue to operate under the HIMP pilot.

As the redesigned inspection models run in HIMP plants, the Agency is collecting data to determine HIMP's achievements. FSIS will evaluate the models to ensure that the modification to include a stationary carcass inspector has been effective.

Results to date are encouraging. In the 16 plants counted in the agency's baseline plant performance review, the traditional system achieved a 0.1 percent rate for infectious conditions and a 1.5 percent rate for fecal contamination. Under the Models Project, in which plant sorters address these defects with FSIS verification inspection, those numbers have been reduced to an average of nearly zero and 0.2 percent respectively. In every category, important food safety gains have been achieved.

If data continue to show food safety gains, the Agency plans to continue the HIMP project and expects to amend its regulations on inspection of young chickens to incorporate the model system of inspection. Should this system prove successful, we will investigate similar changes in the inspection of the slaughter of other species based on the results of the model.

As for processing inspection, traditionally, the Agency made assignments of processing inspectors based on factors such as the physical size of the establishment, the volume of production, and the complexity of the processing operation—complexity referring to the level of technology involved with or overall sophistication of a process, rather than the relative level of food safety hazard it presented.

FSIS believes that its efforts could be more effective and efficient if assignments were based on a risk analysis system. FSIS is exploring ways to link the degree of risk presented by products produced by an establishment to the frequency and intensity of inspection that establishment would receive. Under a risk-based system, an establishment's compliance history could also play a role in determining inspectors' assignments.

FSIS is in the early stages of developing such a system and is committed to deal with this issue through a public process over the course of the next year. As directed in the fiscal year 2001 Appropriations Act conference report, the Agency developed and submitted to Congress on March 5, 2001, a report on its efforts to evaluate opportunities for greater flexibility in the allocation of processing inspection resources. Additionally, a public meeting is planned for June to discuss this project in the broader context of FSIS' efforts to establish improved approaches to regulation.

Regulatory Reform

The Agency's evaluation of HACCP also includes an ongoing effort to review existing regulations. During the last several years, FSIS has been reviewing its regulations to eliminate duplication and inconsistency with its own and other agencies' regulations, and to revise its numerous "command-and-control" regulations. The review effort is targeted at improving the consistency of the regulations with the July 25, 1996, Pathogen Reduction/HACCP rule.

Since 1995, FSIS has published a series of final rules that contributes to the accomplishment of regulatory reform by: removing command-and-control requirements for label approval; eliminating requirements for partial quality control programs; consolidating the listings of food ingredients permitted for use in meat and poultry products and expanding the permitted uses of food irradiation; consolidating, streamlining, and reducing to performance standards the sanitation requirements for meat and poultry establishments; replacing with performance standards the command-and-control requirements for processing certain meat and poultry products; eliminating required prior approval of blueprints and equipment for meat and poultry establishments; prescribing a single set of rules of practice governing Agency enforcement actions under the Federal Meat Inspection Act and the Poultry Products Inspection Act; and eliminating remaining requirements for partial quality control (PQC) programs in meat and poultry processing plants.

In the fiscal year 2001 Appropriations Act conference report, Congress directed FSIS to report on a variety of topics related to its regulatory reform and rulemaking activities, as well as matters involving in-plant staffing, workforce training, and the role of microbiological criteria in the production and regulation of meat and poultry products. FSIS has completed, or is nearing completion, most of these reports and many have already been submitted to Congress.

Residue and Microbiological Testing

Integral to both efforts to build a HACCP-based infrastructure and design an improved food safety program are initiatives that enhance the FSIS science program—particularly the risk assessment, analytical, and laboratory support activities that form its core. The information obtained from these activities provides an indispensable framework within which the Agency controls and reduces the incidence of foodborne illness in the United States.

While FSIS' HACCP regulations list chemical contamination, pesticides, and drug residues as sources of food safety hazards, the Agency did not change its approach to residues with the implementation of HACCP. Bringing residue control under HACCP has the potential to provide even more public health protection than the current approach. Under HACCP, it is the establishment that assesses the hazards and decides how it will control them. FSIS will be responsible for verifying that the plant's controls are working.

FSIS began the process of bringing residue control under HACCP with a public meeting held last December. The meeting highlighted a number of advantages of

such a change, but it also raised a number of questions that the Agency will have to consider in deciding how to proceed.

Another priority for our residue control program is implementing changes that bring it into compliance with European Union (EU) residue testing requirements for exporting meat products to EU member countries. During fiscal year 2000, FSIS began a major effort in this regard, and further work is planned in fiscal year 2002 to complete the process. I will discuss this initiative later in my statement when I review the increases requested in the proposed fiscal year 2002 FSIS budget.

In the area of microbiology, we are doing sampling as a means of verifying the effectiveness of plants' HACCP plans. FSIS has established performance standards for Salmonella to measure whether plants are successful under HACCP in controlling pathogens. Recent data for large, small, and very small meat and poultry slaughter plants show a significant decrease in the prevalence of Salmonella as compared to pre-HACCP baseline data.

The establishment of baseline profiles for meat and poultry will provide a yardstick for measuring the effectiveness of changes over time. In fiscal year 2000, we finished baseline testing for Campylobacter testing in raw chicken carcasses.

The members of the Subcommittee are well acquainted with the lawsuit filed by Supreme Beef Processors (Supreme) in November 1999. This lawsuit was filed to enjoin USDA from suspending inspection services at Supreme's operations after the company failed the Salmonella performance standard for the third consecutive time. Under the Pathogen Reduction/HACCP rule, three consecutive failures to meet the performance standard constitutes failure to maintain sanitary conditions and results in the suspension of inspection services.

Following the issuance of a temporary restraining order and a preliminary injunction prohibiting USDA from suspending inspection services, the Court issued a decision on May 25, 2000. The Court held that USDA exceeded its statutory authority in issuing and seeking to enforce the Salmonella performance standard. The Court found that, under 21 U.S.C. 601 (m)(4), meat is adulterated only when USDA finds that the conditions of the establishment are insanitary. However, the presence of Salmonella on the end product cannot be used to determine whether the establishment is insanitary because the presence of Salmonella is not "solely—or even substantially—dependent upon the sanitation in a grinder's establishment." The Court rejected USDA's argument that controls over incoming raw products are important sanitation measures, and that the lack of adequate controls constitutes insanitary conditions. USDA appealed the decision on September 9, 2000. On September 26, 2000, Supreme filed a voluntary Chapter 11 bankruptcy petition in the United States Bankruptcy Court for the Eastern District of Texas. The Court of Appeals immediately issued an order staying the appeal due to Supreme's bankruptcy petition. The parties filed briefs and the Court of Appeals subsequently lifted the stay. FSIS' reply to the initial filing of briefs will be issued shortly.

WORKPLACE ENVIRONMENT

As mentioned earlier in this statement, the Agency is working on improving the workplace environment, most importantly its safety, and establishing a common civil rights understanding among all employees. In October 2000, FSIS completed the mandatory civil rights training of all its employees. As of September, all non-inplant employees had completed sexual harassment training delivered over the Internet. By the end of the current fiscal year, our non-inplant employees will have completed special emphasis training on the unique concerns of women, minorities and persons with disabilities in the same manner. We also have identified and are now addressing workplace issues that contribute to employee dissatisfaction and lower productivity, including issues of workplace violence which, this past year, manifested themselves in a most tragic manner for the Agency and have created an intensified focus on the safety and health of the FSIS workforce.

On June 21, 2000, two FSIS compliance officers and a California Department of Food and Agriculture investigator were shot and killed in a San Leandro, California, sausage-processing plant. Another California inspector escaped with his life. These officials were conducting a joint review of the plant because it was suspected of violating both Federal and state meat inspection laws. In response to this tragedy, FSIS has formed an internal task force of employees from throughout the Agency to make recommendations for preventing violence in the plants we regulate. Additionally, the Milbank Memorial Fund is studying, under cooperative agreement with the Agency, the causes of violence and conflict in the food safety workplace. The Fund is bringing together leaders from industry, consumer groups, FSIS, labor, and employee organizations to examine how these groups can better relate to one another given the respective and sometimes competing roles they play in the food safe-

ty environment. A report of the Fund's findings is expected to be released in the next few weeks.

UPGRADING EDUCATION, TRAINING AND PROFESSIONAL SKILLS IN THE WORKFORCE

Another way in which FSIS seeks to maximize its effectiveness as a regulatory public health agency is by increasing the scientific expertise of its workforce. Since the implementation of the Pathogen Reduction/HACCP rule, the Agency's frontline workforce needs a broader scientific and analytical background in order to verify Pathogen Reduction/HACCP requirements and deal more effectively with high priority and emerging food safety hazards.

To assess the knowledge and training requirements of our future workforce, FSIS formed the Workforce of the Future Steering Committee in July 1999 to oversee our workforce planning activities and to guide this transition of the workforce. We established the FSIS Training and Education Committee for 2001 and Beyond (TEC 2001) to examine our current education and training activities, conduct an assessment of Agency needs, develop an education vision for the Agency, and develop a strategy for educating and training our employees for the 21st century. TEC 2001 is focusing education and training on the scientific and legal basis for making regulatory determinations and implementing statutory authorities. In addition, TEC 2001 is exploring partnerships with stakeholder groups such as industry, international trading partners, state and local agriculture and public health agencies, and academia to provide for shared food safety education opportunities.

One of FSIS' workforce initiatives is the Consumer Safety Officer (CSO). The CSO is a professional position requiring a general scientific background. FSIS believes that introducing into the frontline workforce CSOs with scientific and analytical skills will improve our ability to fully modernize our inspection system. We are grateful for your allowing us the opportunity to begin introducing CSOs into meat and poultry plants in fiscal year 2001. Our goal is to position 35 CSOs in in-plant settings by the end of the fiscal year.

By way of review, CSOs will support in-plant inspection personnel in verifying HACCP system adequacy; facilitate industry innovation, outbreak prevention and containment; apply risk analysis; improve compliance through effective communication with industry; and address unique problems that require a comprehensive, interdisciplinary approach. Additionally, CSOs focus particular attention on assisting small and very small plants in the design and implementation of HACCP plans, Sanitation SOPs, E.coli monitoring plans, and microbiological control strategies. In doing so, CSOs help FSIS comply with the Small Business Regulatory Enforcement Flexibility Act (SBREFA), which requires that Federal agencies act to mitigate the adverse impact of new regulations on small business by providing them assistance and guidance.

In February 2000, FSIS provided a report to Congress on its plans to introduce the CSO occupation into the Agency much more gradually than originally planned, to minimize relocation and other costs. In February of this year, the Agency completed a survey of inspection personnel and has determined how many of these and other employees now satisfy the educational requirement for the CSO occupation.

COMMUNICATION WITH STAKEHOLDERS

I've discussed the "regulatory" part of our activities, but our "public health" role also includes extensive communication with stakeholder groups. Our communication programs seek to increase understanding by these groups of our mission, authority, regulations, and procedures.

Consumer and Food Safety Education

Primary among our stakeholders are consumers. FSIS education programs are designed to prevent foodborne illness. We develop outreach materials and activities based on current scientific and consumer research, social marketing, and educational research. Some programs target consumers who are at greatest risk from foodborne illness—the very young, the elderly, pregnant women, people who have chronic diseases, and people with compromised immune systems.

Among these activities, the USDA Meat and Poultry Hotline has for 15 years provided a toll-free national service to consumers, information multipliers and professionals with questions about safe preparation of meat, poultry, and other foods, and foodborne illness prevention. In fiscal year 2000, the Hotline handled more than 86,000 calls.

We also reach out to consumers and others with food safety education campaigns. In May 2000, we launched the Thermy™ campaign to promote the use of food thermometers in the home. Millions of consumers already have seen the message. Part-

nerships are being developed to put Thermy™ on point-of-purchase packages and exhibits. Several large grocery store chains launched their own thermometer promotions during fiscal year 2000.

Another highly successful campaign, Fight BAC_™, has reached millions and shows no signs of slowing. The Partnership for Food Safety Education, made up of Federal agencies, industry organizations, and consumer groups, combined resources for this campaign. The Partnership formed an alliance with Wal-Mart to launch a promotion in approximately 800 Wal-Mart Stores across the country on September 9, 2000.

We strive to reach not only consumers, but also health professionals. One achievement of which we are extremely proud is the publication of Diagnosis and Management of Foodborne Illnesses, A Primer for Physicians. This set of publications was produced in cooperation with the American Medical Association (AMA), the Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration (FDA), and provides physicians with information on diagnosing, treating, and reporting diarrheal foodborne illness. Physicians can earn three hours of continuing medical education credit with this primer. Response to the primer's release in January 2001 was enthusiastic. All three agencies and the AMA have received thousands of requests for it.

Federal, State, and Industry Partnerships

FSIS works closely with State and local public health and food safety authorities, as well as with sister Federal agencies, such as FDA and the CDC, to coordinate food safety strategies and emergency response activities.

Nationwide surveillance of foodborne illness outbreaks is a long-standing example of interstate cooperation that is coordinated by FSIS and CDC. Under an agreement between the two agencies, CDC conducts active population-based surveillance of foodborne diseases. This involves the on-going and systematic collection of foodborne illness data to detect outbreaks and monitor disease trends and patterns. Data collected are used to determine the need for public health emergency response and to assess the effectiveness of efforts to prevent foodborne disease and outbreaks over time.

In fiscal year 2000, the Foodborne Diseases Active Surveillance Network (FoodNet) grew to nine states with the addition of Colorado. Approximately 28 million Americans are now covered by the system. A companion system, the PulseNet computerized database, matches the DNA fingerprint of foodborne diseases and accelerates the traceback process to the source of the contamination. PulseNet has been especially successful in identifying dispersed illnesses with potentially common sources of implicated product and alerting the regulatory agencies so that they can take appropriate action.

FSIS also participates each year in the Conference for Food Protection (CFP). The CFP provides a bi-annual forum for Federal, State, and local government representatives to meet with industry, academia, and consumers on recommended changes to the Food Code. FSIS collaborates with FDA on publication of the Code in order to provide Federal guidance to the States and others with regulatory responsibility for retail food safety. Adoption of the Code increases uniformity of food safety regulation among jurisdictions, which benefits both commerce and consumers.

To augment its sponsorship of the Food Code, FSIS has partnered with the Association of Food and Drug Officials (AFDO) and the University of Florida to develop and pilot a train-the-trainer course on safe meat and poultry processing at retail. Because the increasing amount of processed meat and poultry produced at retail is exempt from Federal inspection, State and local agencies must ensure food safety in retail environments. Until recently, however, little or no training was available to State and local inspectors who oversee retail activity. Beginning in fiscal year 2001, AFDO is offering the course nationwide through its network of regional affiliates with a goal of training as many as possible in the elements of HACCP-based safe meat and poultry processing.

Another established FSIS partnership is that which it maintains with animal producer groups at the State level. The Animal and Egg Production Food Safety (AEPFS) program is a non-regulatory program whose principal purpose is to: (1) educate producers about the impact of the farm-to-table initiatives of the Pathogen Reduction/HACCP regulation and, (2) coordinate efforts to identify and encourage the adoption of practices that reduce or prevent human pathogens from developing in or on animals and eggs submitted for processing.

AEPFS carries out its mission through the use of cooperative agreements, contracts, interagency task groups, external cooperative activities, guidance materials, and speeches. Its funding is used to develop animal and egg production food safety partnerships in cooperation with state animal health officials, FDA, and the Animal

and Plant Health Inspection Service Partnerships are in place with 24 states in such areas as quality assurance, residue avoidance, animal waste management, records management, managed culling practices, herd health hygiene, biosecurity, and proper sanitation in the production, transportation, and marketing of food animals.

AEPFS is working with its counterparts in USDA's APHIS to develop the role of FSIS veterinarians in performing surveillance for foreign animal diseases, including Bovine Spongiform Encephalopathy (BSE) and Foot and Mouth Disease (FMD). The program is also focusing on improved coordination with other Federal, State, and foreign veterinary and public health agencies to ensure that both disease threats do not affect domestic food animal populations.

Codex Alimentarius Commission (Codex)

FSIS also plays a leading role in the United States' participation in global dialogue on the setting of international food safety standards. The GATT Uruguay Round Agreements Act designated USDA as the lead agency for U.S. participation in the sanitary and phyto-sanitary standard setting activities of the Codex Alimentarius Commission. FSIS coordinates USDA's participation in these activities. Through notices published in the Federal Register, FSIS advises the public of the standard-setting activities of the Commission, as well as of the dates and agendas of its meetings.

Codex plays an important role in FSIS' ability to fulfill its mission. First, its sanitary and phytosanitary standard-setting activities protect consumers by improving food safety. Second, these activities help ensure that sound science is the basis for establishing international food safety standards. In this way, Codex helps facilitate fair trade in agricultural products.

Codex has grown in importance since it was designated as one of the three international standard-setting organizations whose health and safety standards serve as key reference points in settling trade disputes under the Agreement on Sanitary and Phytosanitary Measures. Currently, 165 nations, representing 98 percent of the world's population, are members of Codex.

As an active member of Codex, the United States has the opportunity to make the international food safety standard setting process work better. We have taken the position that Codex is the existing organization that the world's governments should use to discuss food safety issues and especially to set standards. We have also proposed changes in many areas where we believe that progress is needed. As chairman of Codex, I have proposed five major priorities for improving the Codex process.

First, is the fundamental importance of science-based decision making. Codex health and safety standards must continue to be based on sound science and risk analysis.

Second, we need to improve the efficiency and speed of the Codex process.

Third, we must ensure that Codex has adequate technical and financial support from its parent organizations—the World Health Organization (WHO) and Food and Agricultural Organization (FAO).

Fourth, is the importance of increasing and strengthening the participation of developing countries in Codex.

Finally, Codex should work toward achieving broader participation by non-governmental organizations (NGOs) in order to ensure that Codex positions have the broadest possible support and acceptance.

Codex received an additional $1 million in funding in fiscal year 2001, for which I again wish to thank the Subcommittee. The U.S. Codex Office has designated these funds for three types of activities:

(1) Outreach: The U.S. frequently finds itself taking positions on issues that are directly in conflict with the positions that have been taken by other government groups. The voting system in Codex assigns one vote per country, regardless of size. We believe that if other countries, especially developing countries and countries in this hemisphere, understood the technical reasons for the U.S. positions, we would be able to count on more allies in the Codex sessions. Therefore, we are using these funds to increase our contacts and activities with these countries.

(2) U.S. Hosted Meetings: In the past, the U.S. Codex Office has had to approach various U.S. agencies, on an ad hoc basis before each meeting, to ask for the necessary funds to conduct the meeting.

(3) Delegate Training: U.S. delegates and alternates to Codex meetings are generally technical experts who are highly regarded in their fields, but who have little experience in international diplomacy and cross-cultural interactions. A third portion of the budget is being used to conduct training sessions for U.S. delegates that will enable them to be more effective representatives of the U.S. position.

Mr. Chairman, this Committee's support of Codex and FSIS' role in it has made a tremendous difference in the credibility of U.S. leadership in the setting of worldwide food safety standards. I thank you for that support and assure you that it will be instrumental in accomplishing the goals I've outlined above for the future of the organization. These action items will be discussed later this year at the 24th Session of the Codex Alimentarius Commission, scheduled for July 2–7 in Geneva, Switzerland, and at the first Global Forum of Food Safety Regulators, taking place in October in Bangkok, Thailand. For this Global Forum, the FAO and WHO have proposed four possible agenda items: experiences in the reduction of foodborne hazards; global food safety emergency communications; precaution in risk management; and consumer information and participation.

Response to Office of Inspector General (OIG) Findings

Before I move on to the Agency's budget request for fiscal year 2002, I want to make you aware of the FSIS responses to reports and an investigation by USDA's Office of Inspector General.

During fiscal year 2000, USDA's Office of Inspector General initiated a series of audits of FSIS to determine whether the Agency's meat and poultry inspection program remains effective under HACCP. These audits covered HACCP in general, the laboratory program, import inspection and foreign program reviews, and compliance activities.

With respect to the FSIS laboratory and quality assurance program, OIG's report was generally complimentary of the timeliness and accuracy of FSIS' testing for pathogens, residues, food chemistry, and species identification on meat and poultry product samples. However, the report recommended that FSIS institute stronger procedures and controls to ensure that all regulated meat and poultry establishments are subject to product testing, and that the Agency work to improve the response of inspection personnel to requests for product samples from inspected establishments. Additionally, it stated that FSIS should strengthen its quality assurance programs to ensure that all FSIS and accredited laboratories used by the Agency are in full compliance with applicable standards and are producing valid and supportable analytical results.

FSIS generally concurs with the findings and recommendations made by the Inspector General with respect to its laboratory and quality assurance operations, but has communicated to OIG that its report prematurely uses the International Organization for Standardization (ISO) Guide 17025 as a standard for FSIS laboratories, and that the Agency's current standards are valid and are still being met. However, to maintain high laboratory standards and as part of its effort to expand and upgrade its laboratory capacity in response to European Union requirements, FSIS has initiated the ISO 17025 accreditation process. This effort, which comprises a major portion of our fiscal year 2002 budget request, will, upon completion, address most of the issues identified by the OIG in its report.

Second, FSIS is reviewing several federally-inspected establishments in New York and New Jersey to ensure that meat and poultry products produced in those establishments are safe and wholesome. These reviews support an ongoing investigation by the USDA Office of Inspector General regarding allegations of plants operating without proper inspection. The OIG is also investigating whether the Agency took proper safeguards last summer during a lengthy refrigeration failure at a plant in New York City. The FSIS reviews will focus on examining HACCP systems and Sanitation Standard Operating Procedures to determine whether each facility has a HACCP and SSOP plan in place that is effective and ensures the production of safe food for consumers. This review involves establishments in the New York metropolitan area. I believe that the FSIS workforce and the vast majority of the plants we inspect work very hard to ensure the safest meat and poultry products possible for the American public.

FISCAL YEAR 2002 BUDGET REQUEST

The FSIS budget request for fiscal year 2002 supports the Agency's goals for the HACCP food safety environment. It provides us with the resources needed to improve the quality of industry food safety programs, while also not imposing user fees of any kind. This budget request helps us complete the transition to a modern, public health regulatory agency.

For fiscal year 2002, FSIS is requesting $715.5 million, a net increase in appropriated funds of $20.3 million. Of the $20.3 million proposed increase in the budget, $18.4 million is for pay and benefit increases. FSIS employee salary, benefits, and inspector travel between plants takes up nearly 90 percent of the FSIS budget. Federal and State pay raises, benefits, and increases in health insurance and retire-

ment benefit costs have a serious effect on our ability to staff plants if not fully funded.

FSIS' fiscal year 2002 budget also includes a request for $875,000 for the Grants-to-States program, primarily for increased pay costs at the state level. It is imperative that states are fully funded for their share of the cooperative programs to permit continued cooperation with the states toward a more closely coordinated national food safety program.

Earlier I mentioned concerns about the safety of imported meat and poultry. These concerns accompany increased requests by foreign countries to export meat and poultry products to the United States. Because of this, we are requesting an increase of $699,000 and three staff years in fiscal year 2002 to bolster our efforts to assure the continuing equivalence of foreign inspection systems. FSIS has a fundamental statutory responsibility to assure the equivalence of foreign production systems for all imported meat, poultry, and egg products entering commercial channels of distribution. Increased comprehensive reviews of foreign inspection programs will verify system equivalence and provide opportunities to reinforce HACCP requirements through the outreach and education element of the reviews. The requested resources are necessary to adequately staff our annual program of comprehensive foreign program reviews and to meet the growing need for more complex initial eligibility reviews.

In fiscal year 2000, the Agency completed routine audits of establishments, laboratories conducting residue and microbiological analyses, and government inspection systems in 31 countries. In addition, an initial verification audit was performed in one country requesting equivalence status. To assess the equivalence of the systems, reviews focused on five risk areas: sanitation, animal disease, residue controls, slaughter/processed product controls, and enforcement controls. In addition, for each audit, we evaluated HACCP programs, Sanitation SOPs, and generic E. coli and Salmonella testing procedures. FSIS also conducted Canadian audits under the United States and Canada Free Trade Agreement (CFTA).

While FSIS conducts a residue monitoring program for meat and poultry produced in the United States, the EU requires additional residue testing for certain hormones, animal drugs, and other compounds in meat that it imports. Currently, there are no Federal or private laboratories in the U.S. that have on-going residue testing programs or capacity to meet the EU requirements. We are therefore also requesting an increase of $4,301,000 and 13 staff years to expand residue testing of meat products to meet the EU requirements.

In recent years, the EU has attempted to stop the import of U.S. meat products because FSIS does not maintain a mechanism for permanent, uninterrupted testing and analysis of some chemical compounds. Additionally, since 1990, the EU has blocked the importation of most U.S. beef products because they might contain hormone residues. During the past three years, meat exports to Europe; primarily pork, horsemeat, and non-hormone treated beef; have decreased. These exports decreased by almost 20 percent from 2000 to 2001 alone. Future exports are in further jeopardy, due to EU assessments of the inadequacy of the FSIS National Residue Program (NRP). In the last three years, we have increased significantly the number of compounds tested in the NRP. However, we have also prioritized and rotated the sampling and analysis of some chemical compounds that we judge to have important public health significance. For example, several EU-required compounds are ranked as high-priority compounds in FSIS' ranking profile, but FSIS lacks the capacity to permanently incorporate regular testing of these substances into the NRP. Other compounds that the EU requires testing for, such as Nitroimidizoles, are not considered by FSIS to be high food safety priorities. In other cases, FSIS plans to test for EU—required compounds, but at sample volumes insufficient to satisfy EU requirements.

FSIS does not presently have the laboratory capacity to test for the compounds prescribed in EU Council Directive 96/23/EC Annex I (Groups A and B). This directive prescribes the compounds for which testing must be conducted in order to export meat products to Europe. FSIS has assured that U.S. product can still be exported to the EU, and is in compliance with EU requirements, by making arrangements for residue testing of U.S. products at independent laboratories in the Netherlands and Canada.

Laboratory capacity is the NRP's chief limiting factor in testing for these compounds on a permanent basis. To immediately carry out the additional testing needed to satisfy EU requirements, we must modify FSIS laboratories. Currently, unusable space can be modified to house additional equipment, provide needed storage and refrigeration space, and to provide space for the additional chemists required to supplement the NRP's existing analytical methods expertise. The NRP needs additional analytical methods and equipment, such as more sophisticated mass spec-

trometers, extraction manifolds, gas- and liquid-chromatographs, graphite and muffle furnaces, a drying oven, and an acid fume hood, to comply with EU requirements. We also need to add chemists and laboratory support specialists, as well as a chemical engineer, to the NRP's current staff.

An essential element of expanding the NRP to meet EU requirements, as well as meeting Agency needs for a credible laboratory program, is the accreditation of FSIS laboratories under International Standards Organization (ISO) Standard 17025. This accreditation will demonstrate and document the competency and credibility of the NRP according to internationally recognized standards. FSIS began the ISO accreditation process in late 1997 and anticipates its completion in fiscal year 2002. Expansion of the NRP to comply with EU requirements increases the scope of activities to be certified as part of the Agency's ISO accreditation process. As a result, this request also includes funding to complete ISO accreditation and to fund the extensive audits required to finalize certification.

CONCLUSION

Mr. Chairman, this concludes my prepared statement. Thank you for your continued support. Thank you also for the opportunity to submit testimony to the Subcommittee on how FSIS is working with Congress and other partners to become a risk-based regulatory public health agency that can better assure the safety of meat, poultry, and egg products for American consumers.

FOOD AND NUTRITION SERVICE

PREPARED STATEMENT OF GEORGE A. BRALEY, ACTING ADMINISTRATOR

Thank you, Mr. Chairman and members of this Subcommittee, I am George Braley, the Acting Administrator of the Food and Nutrition Service (FNS). In my normal role as the Associate Administrator for the Food and Nutrition Service, I have, from time to time, appeared before the Subcommittee. I wish to thank you and the other Subcommittee members for the opportunity to submit my witness statement which will address the key aspects of the fiscal year 2002 budget request for FNS.

2002 BUDGET REQUEST

FNS requests $36.6 billion in new budget authority for fiscal year 2002, a level that will maintain the Nation's nutrition assistance safety net. The nutrition assistance programs are essential to fighting hunger and improving nutrition for children and low-income people. The request meets the priorities described in both USDA's strategic plan 2000–2005, and Fiscal Year 2002 Annual Performance Plan. These plans focus the programs on results—results in improving food security and nutrition for the people they serve, and results in providing strong stewardship for the taxpayer investment in nutrition assistance.

The fiscal year 2002 request includes funds to fully support all of the FNS Federal nutrition assistance programs.

FOOD STAMP PROGRAM

The Food Stamp Program continues to serve the Nation as the primary source of nutrition assistance for low-income Americans. The program's mission is to ensure that low-income Americans have access to a nutritious, healthful diet. By providing nutrition assistance and promoting healthy food choices, the Food Stamp Program can improve the nutritional status of low-income individuals, protect their health, and strengthen the food and agricultural economy.

We are requesting $22.0 billion for the Food Stamp Program in fiscal year 2002. This request is sufficient to serve an average of 18.4 million people each month with an average monthly benefit of $78.35 per person. The cost of the Thrifty Food Plan—the basis for determining food stamp benefits—is projected to rise about 3.1 percent from fiscal year 2001 to fiscal year 2002. Participation is projected to rise by about 805,000 people, reflecting a slight increase in projected unemployment rates (an indicator of the population eligible for benefits). The projected increase in participation, coupled with the projected increase in average monthly benefits (from $74.88 in fiscal year 2001), results in a $1 billion increase in benefit costs above the current estimate for fiscal year 2001.

The projections are based on current economic forecasts from the Office of Management and Budget. To guard against unforeseen changes in economic conditions, our request includes a benefit reserve of $1 billion, a $900 million increase over fis-

cal year 2001. This benefit reserve will ensure that funds are quickly available if participation increases faster than expected, thereby ensuring the program's ability to get food to people who need it.

Also included under the Food Stamp account is $100 million authorized for the purchase of commodities for The Emergency Food Assistance Program and $1.3 billion to fund the Nutrition Assistance Program for Puerto Rico. Our request also includes $72.8 million for the Food Distribution Program on Indian Reservations (FDPIR), a slight reduction from fiscal year 2001 reflecting a decline in inventory purchases and non-continuation of a one-time $3 million bison purchase made in fiscal year 2001. The FDPIR provides benefits to eligible needy persons living on or near Indian reservations and is authorized by the Food Stamp Act. The budget estimates that participation in the program during fiscal year 2002 will average 120,360 persons monthly, a slight increase from fiscal year 2001.

CHILD NUTRITION PROGRAMS

The purpose of the Child Nutrition Programs is to assist State and local governments in providing healthful, nutritious meals to children in public and nonprofit private schools, child care institutions, including family day care homes and summer recreation programs. FNS is requesting $10.1 billion—a 5.7 percent increase above the fiscal year 2001 estimate. We estimate that in fiscal year 2002, the requested funds, plus about $344 million in projected carryover funds available from fiscal year 2001, will support:

—4.7 billion meals in the School Lunch Program;
—282 million snacks in the After School Snack Program;
—1.4 billion meals in the School Breakfast Program;
—1.8 billion meals in Child Care Centers and Day Care Homes;
—152 million meals in the Summer Food Program; and
—120 million half pints of milk in the Special Milk Program.

Due to predicted increases in school enrollment in fiscal year 2002, average daily participation in both the National School Lunch Program (NSLP) and the School Breakfast Program (SBP) are projected to be somewhat higher than in fiscal year 2001—an increase estimated to be 1.4 percent in the NSLP and about 3.7 percent in the SBP. The combination of increased meal reimbursements and the projected growth will require a fiscal year 2002 increase of $382 million over fiscal year 2001.

In the Child and Adult Care Food Program, we project a 3.3 percent increase (59 million) in meals served over fiscal year 2001. The increase in the per meal subsidy and the projected growth in participation will require an additional $112.4 million in fiscal year 2002 over fiscal year 2001.

Included as part of our child nutrition request is $2 million for a school lunch integrity program that will (1) examine the current application and application verification processes for school meals programs and (2) explore potential alternatives to the current process.

SCHOOL MEALS INITIATIVE AND TEAM NUTRITION

The School Meals Initiative for Healthy Children regulation updated the nutrition standards for school meals and recognized the importance of training and technical assistance for school food service professionals and nutrition education for students. To implement this regulation, the Food and Nutrition Service established the Team Nutrition Initiative, a comprehensive, structured plan for improving the nutritional standards of school meals as well as creating an environment in the school cafeteria, in the classroom and in the community that fosters good dietary practices among children and their families. This initiative involves schools, parents and the community in efforts to continuously improve school meals and to promote the health and education of about 50 million school children in more than 97,000 schools Nationwide. Team Nutrition works to change current behaviors to be more supportive of healthy eating and physical activity through (1) training and technical assistance for school food service professionals, (2) interactive nutrition education for children and their parents and (3) support for school and community leaders. These strategies are accomplished through direct Federal operations as well as grants to State agencies. In fiscal year 2002, we are requesting a total of $10 million for Team Nutrition, the same level appropriated for fiscal year 2001.

SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC)

The purpose of the WIC Program is to improve the health of low-income nutritionally at-risk, pregnant, breastfeeding and postpartum women, infants and children up to their fifth birthday. WIC participants receive three primary benefits: nutri-

tious food packages designed to supplement their diets; nutrition education intended to improve their nutrition practices; and referrals to other critical health and social services.

We are requesting $4.1 billion in fiscal year 2002, an increase of $94 million over fiscal year 2001, to provide nutrition education and food benefits to a monthly average of 7.25 million needy women, infants and children.

WIC ELECTRONIC BENEFIT TRANSFER (EBT)

FNS is engaging in activities complementary to the Food Stamp Program to advance EBT and Electronic Service Delivery (ESD) system development to improve program benefit delivery and client services for the WIC Program. Our WIC Program request for fiscal year 2002 includes $6 million which will be dedicated to EBT development. Our goal is to successfully implement EBT/ESD in States that have embarked on planning/pilot testing and eventually expand EBT/ESD development to additional States. The following describes some of the progress in each of the projects:

Michigan is in the final stages of its contract negotiations with its contractor, Citibank, for an 18-month pilot which will demonstrate a new hybrid approach for WIC electronic service delivery. System testing is expected to occur sometime toward the end of 2001.

New Jersey continues to plan for an ESD pilot which will include partnerships with managed care providers, HMO's and other entities. A final Request for Proposal for EBT services is expected to be released in 2001.

New Mexico and Texas have completed a joint procurement for WIC EBT services. New Mexico plans to launch their pilot in August 2001, and Texas in February 2002. Texas and New Mexico have chosen an alternative strategy for development, which includes in-house development for EBT processing, supported by EBT contracted services.

Ohio launched its off-line, smartcard EBT pilot in the Dayton, Ohio area on October 16, 2000, in conjunction with existing off-line chip card technology already in place for the Ohio Food Stamp Program. The WIC pilot is expected to run through July 2001, at which time Ohio may continue current pilot operations or expand the pilot beyond the Dayton area.

PARTNERS (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut) continues planning a multi-State, multi-program procurement for pilots in all six States. PARTNERS plans to utilize hybrid card technology (on-line magnetic stripe and off-line integrated circuit chip/smart card) to deliver WIC food benefits as well as maintain and exchange health services information in partnerships with a variety of health service providers. The next step is to procure the services of a contractor for the design, development, and implementation of the pilots, and to procure a contractor for an independent evaluation of the pilot projects.

Wyoming EBT includes WIC and Food Stamps sharing the same electronic service delivery smartcard and retailer platform. Food Stamps is 100 percent rolled out with WIC at about 80 percent. WIC expects to complete its roll-out of the system in the fall of 2001. Wyoming WIC is also seeking partnerships with other health agencies for cost containment purposes.

Nevada, Wyoming and North Dakota (Health Passport Project)—This is a field demonstration project of the Western Governor's Association to demonstrate the use of an individual, secure portable electronic health record using smartcard technology. Seventeen programs (including WIC) are linked through an application program interface to manage the 500 "common data" elements across programs in a smartcard.

WIC FARMERS' MARKET NUTRITION PROGRAM

The WIC Farmers' Market Nutrition Program (FMNP) provides WIC participants access to fresh fruits and vegetables while also expanding the awareness and use of farmers' markets by consumers. The requested level of $20 million for fiscal year 2002 is the same as the fiscal year 2001 level. In fiscal year 2001, three new State agencies were approved to participate in the FMNP. Currently 41 State agencies are participating in the program.

COMMODITY ASSISTANCE PROGRAMS

The Commodity Assistance Programs include funding for the Commodity Supplemental Food Program (CSFP) and administrative funding for The Emergency Food Assistance Program (TEFAP). Our budget request for fiscal year 2002 includes:

—$95.0 million for the women, infants, and children and elderly caseload in CSFP; and

—$45 million for TEFAP State and local agency administrative expenses in addition to the $100 million for commodity purchases available in the Food Stamp account providing for a total program of $145 million.

The CSFP level requested for fiscal year 2002 will support projected average monthly participation of 94,400 women, infants and children as well as a projected average monthly participation of 355,600 elderly. The request of $95.0 million (the same as appropriated in fiscal year 2001), in conjunction with use of about $4 million in inventory, will allow for a total program of about $99 million in fiscal year 2002 which will support the increase in participation of about 23,000 participants per month. Any unobligated balances at the end of the current fiscal year will, at the beginning of fiscal year 2002, be subject to recission.

NUTRITION PROGRAM FOR THE ELDERLY

Our request for the Nutrition Program for the Elderly (NPE) is $149.7 million, the same as the fiscal year 2001 level. Public Law 106–501, the Older Americans Act of 2000 enacted November 13, 2000, required that each grantee or State receive a proportion of available funds equal to the proportion of meals served by that grantee or State in the preceding fiscal year. In previous fiscal years (prior to fiscal year 2001), NPE was funded on a payment per meal basis. The requested level will support in fiscal year 2002 about the same number of meals served in fiscal year 2001.

FOOD PROGRAM ADMINISTRATION

Our Food Program Administration (FPA) request for fiscal year 2002 is $127.5 million—an increase of $8 million over fiscal year 2001. Almost $4 million of the requested increase is to provide for pay costs of the agency staff and management personnel funded from this account. Additionally, we are requesting an increase of $1.8 million with which to improve FNS' information technology capacity. We expect the majority of States—perhaps as many as 75 percent—to begin to replace or update the large automated systems which are critical to the successful delivery of agency programs. Each year, FNS provides upwards of $300 million in support of State systems. This requested increase will provide for a needed increase in agency oversight and review of State agency documentation activities and expenditures.

Also requested as part of the increase is $200,000 for support of improved work force diversity and succession planning. FNS sorely needs these resources to support implementation of a human capital management strategy that addresses serious leadership, retention and succession concerns. Agency projections are that about 80 percent of the career senior leaders and about 30 percent of the total work force could retire within five years. FNS must address this serious challenge.

Since FNS is the most appropriate agency to perform program and performance assessments that respond directly to the needs of agency program policy makers and managers, our request includes $3 million of the overall $12 million USDA nutrition research request. Such assessments are essential to ensuring that the FNS programs achieve their missions effectively. These operational assessments provide the foundation for strategic planning, program outcome measurement and program innovation needed to respond to emerging issues and problems and support effective stewardship of the substantial taxpayer investment in nutrition assistance.

CONCLUSION

The mission of FNS is to increase food security and reduce hunger in partnership with cooperating organizations by providing children and low-income people access to food, a healthful diet, and nutrition education in a manner that supports American agriculture and inspires public confidence. This fiscal year 2002 budget request reflects our commitment to the achievement of this mission. We also believe that our request for $36.6 billion is crucial to continue efficient program operations. Mr. Chairman, this summarizes the FNS fiscal year 2002 budget request. I will be happy to answer questions that you or other members of the Subcommittee may have.

NATIONAL APPEALS DIVISION

PREPARED STATEMENT OF NORMAN G. COOPER, DIRECTOR

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you to discuss the fiscal year 2002 budget request for the National Appeals Division.

INTRODUCTION

The National Appeals Division (NAD) was established by the Secretary of Agriculture pursuant to the Reorganization Act of 1994. The Act consolidated the appellate functions and staffs of several USDA agencies under a single administrative appeals organization. NAD appeals involve program decisions of the Farm Service Agency, the Risk Management Agency, the Natural Resources Conservation Service, and Rural Development agencies. In addition, in states covered by the United States Court of Appeals for the Eighth Circuit, NAD Hearing Officers adjudicate and the Director makes final determinations on applications for fees under the Equal Access to Justice Act (EAJA). NAD is headquartered in Alexandria, Virginia, and has regional offices located in Indianapolis, Indiana; Memphis, Tennessee; and Lakewood, Colorado. NAD's staff of 133 includes 75 hearing officers.

MISSION

Our mission is to conduct evidentiary administrative appeals hearings and reviews arising out of program decisions of certain USDA agencies. Our strategic goal is to conduct independent evidentiary hearings and issue timely and well-reasoned determinations which correctly apply USDA laws and regulations. NAD's mission is statutorily specific, but its operation is dynamic and challenging, given the complexities of changing laws, regulations and policies affecting USDA program decisions.

We are also requesting $372,000 for pay costs in order to maintain current staffing levels. There is little flexibility for absorbing additional costs. NAD would be adversely impacted in its ability to execute its mission without the increase for pay costs.

That concludes my statement, and I look forward to working with the Committee on the 2002 National Appeals Division budget.

ECONOMIC RESEARCH SERVICE

PREPARED STATEMENT OF SUSAN E. OFFUTT, ADMINISTRATOR

Mr. Chairman and members of the Committee, I am pleased to have the opportunity to present the proposed fiscal year 2002 budget for the Economic Research Service (ERS).

MISSION

The Economic Research Service provides economic and other social science research and analysis on efficiency, efficacy, and equity issues related to agriculture, food, natural resources, and rural development to improve public and private decision making.

BUDGET

The Agency's request for 2002 is $67.2 million, a net increase of $1.3 million from the 2001 appropriation. The net increase consists of four parts: a $1.2 million increase for the purchase and dissemination of retail meat prices; a $.6 million increase for economic analysis and expert witness litigation support for the Pigford Consent Decree; a $1.5 million increase for pay costs; and a $2 million decrease for performance and program assessments related to the administrative responsibilities of running the food assistance programs. Funding for these performance and program assessments in 2002 is included in the Food and Nutrition Service (FNS) budget.

ERS CONTRIBUTIONS TO MISSION AREA GOALS

ERS shares five general goals with its fellow agencies in the Research, Education, and Economics (REE) mission area: (1) a highly competitive agricultural production system, (2) a safe and secure food supply, (3) a healthy and well nourished population, (4) harmony between agriculture and the environment, and (5) enhanced economic opportunity and quality of life for all Americans. These goals are fully consistent with the U.S. Department of Agriculture mission.

Goal I: The agricultural production system is highly competitive in the global economy

ERS helps the U.S. food and agriculture sector effectively adapt to changing market structure and post-WTO and post-NAFTA trade conditions by analyzing the linkages between domestic and global food and commodity markets and the implica-

tions of alternative domestic and international policies on competitiveness. ERS economists analyze factors that drive change in the structure and performance of domestic and global food and agriculture markets; provide economic assessments of structural change and competition in the food industry; analyze how global environmental change, international trade agreements, and foreign trade restrictions affect U.S. agricultural production, exports, imports, and income; and provide economic analyses that determine how fundamental commodity market relationships are adjusting to changing trade, domestic policy, and structural conditions.

ERS will continue to work closely with the World Agricultural Outlook Board and USDA agencies to provide short- and long-term projections of U.S. and world agricultural production, consumption, and trade. Cooperative efforts will seek to understand how commodity price and farm income variability affect market performance and interact with Federal policies and programs. ERS has sustained the frequency of reporting on commodities' outlooks, while strengthening the analysis that leads to a better understanding of reported observations and improving access to timely information through the use of the ERS Web site. ERS has established quarterly meetings with commodity groups and is now expanding the roundtables to include a wider spectrum of customers to provide feedback on the ERS market analysis and outlook program.

In addition, ERS will continue to work closely with the Foreign Agricultural Service and the Office of the U.S. Trade Representative to ensure that negotiations under the auspices of the World Trade Organization and regional trade agreements are successful and advantageous for U.S. agriculture. Research will target options and prospects for further liberalization in global markets, building on recent ERS findings such as empirical evidence that tariffs on food and agricultural products constitute the most significant barrier to increased market access for U.S. products. ERS' January 2001 publication, Profiles of Tariffs in Global Agricultural Markets, demonstrates the Agency's ability to provide critical information on the levels of protection in food and agricultural markets, and also on the variations across countries and commodities that may be critical to understanding the benefits and costs of alternative negotiating proposals. ERS will also continue to conduct and build upon research designed to significantly improve understanding among decision makers of the changing structure of the food marketing chain (for example, the implications for producers of the increasing replacement of open markets by contractual arrangements and vertical integration). Understanding the Dynamics of Produce Markets, published in August 2000, and U.S. Fresh Fruit and Vegetable Marketing, published in January 2001, demonstrate the expertise that ERS has built in explaining and analyzing critical changes in vertical relationships in the food system, and the implications for producers and others throughout the supply chain.

ERS analyses can help guide and evaluate resource allocation and management of public sector agricultural research—a key to maintaining increases in productivity that underlie a strong competitive position for U.S. farmers. ERS economists track and seek to understand the determinants of public and private spending on agricultural R&D; evaluate the returns from those expenditures; and consider the most effective roles for public and private sector research entities. Economic Issues in Agricultural Biotechnology, released in March 2001, demonstrates ERS' understanding of and ability to communicate the role of biotechnology and intellectual property rights in reshaping the public-private balance and partnerships in agricultural research.

Purchase and Dissemination of Retail Meat Prices

The request for an increase of $1,197,000 in fiscal year 2002 is necessary to meet the requirements imposed by the Mandatory Livestock Price Reporting Act of 1999 which seeks to improve the price reporting of meat products. The funding will be used to purchase retail price and volume data from retailers and to aggregate the data. The data will be maintained in a database and will permit the monthly electronic publication of retail sales quantity, value and average price at the national level for the major meats, such as beef, pork and chicken; and for other meats, such as turkey, veal and lamb. This initiative will enhance transparency of pricing systems in livestock and meat markets. It will also provide a foundation for continuing analysis of rapid structural changes in food and agricultural markets to aid in policy decisions related to market regulation, competition, information services, consumer demand, and rural development.

Goal 2: The food production system is safe and secure

ERS focuses on improving the efficiency and effectiveness of public policies and programs designed to protect consumers from unsafe food by analyzing the benefits of safer food and the costs of food safety policies; efficient and cost-effective ap-

proaches to promote food safety; and how agricultural production and processing practices affect food safety, resource quality, and farm workers' safety. This research helps government officials design more efficient and cost-effective approaches to promoting food safety. For example, ERS works closely with various USDA agencies and the Centers for Disease Control and Prevention (CDC) on pathogen reduction efforts, including Hazard Analysis and Critical Control Points (HACCP). The ERS research program provides detailed and up-to-date appraisals of the benefits of safer food, such as reducing direct medical costs and indirect costs associated with productivity losses from foodborne illnesses caused by microbial pathogens. Tracing the Costs and Benefits of Improvements in Food Safety, published in October 2000, provided policymakers with information about who ultimately benefits from reduced foodborne illnesses and who ultimately pays the costs of food safety regulations. ERS received increased funding for work under Goal 2 in fiscal year 1999 and fiscal year 2000. Using this funding ERS administered a competitive process through which several grants were awarded. The projects, for which results are expected in 2002, are applying state-of-the-art valuation methodologies to measure consumers' willingness to pay for reductions in food safety risks from microbial pathogens in foods.

Understanding how food prices are determined is increasingly important in responding to domestic and international market events and opportunities that promote the security of the U.S. food supply. As the farm share of the food dollar declines, accurate retail price forecasts depend more heavily on understanding the marketing system beyond the farmgate. ERS systematically examines the factors that help set retail prices, including an assessment of the roles of the transportation, processing, manufacturing, wholesaling and retailing sectors; the impact of imports and exports; and linkages to the total economy.

Goal 3: The nation's population is healthy and well-nourished

ERS helps identify efficient and effective public policies that promote consumers' access to a wide variety of high-quality foods at affordable prices. ERS economists analyze factors affecting dietary changes as well as trends in America's eating habits; assess impacts of nutrition assessments and the implications for the individual, society and agriculture; and provide economic evaluations of food nutrition and assistance programs, such as factors determining changes in Food Stamp program participation. In 2000 ERS published The Decline in the Food Stamp Program Participation in the 1990s, which detailed and analyzed the decline in participation from 27.5 million participants in 1994 to 18.2 million in 1999.

Analysis of nutrition education efforts considers what kinds of information motivate changes in consumer behavior, the food cost of healthy diets, the influence of food assistance programs on nutrition, and the implications of healthy diets for the structure of the food system. In 2000, ERS released the study, WIC and the Nutrient Intake of Children, which found that participation in the WIC program had a significant positive effect on children's intake of several nutrients, including iron. The finding regarding iron was especially useful since low intake of iron, which may lead to anemia, is considered to be an important public health issue.

Through the Food Assistance and Nutrition Research Program (FANRP), ERS will continue to conduct studies and evaluations of the Nation's food assistance programs. FANRP research is designed to meet the critical needs of USDA, Congress, program managers, policy officials, USDA program clients, the research community, and the public at large in relation to the design and effectiveness of food assistance programs, diet quality, and nutrition education. FANRP research is conducted through internal research at ERS and through a portfolio of external research. Through partnerships with other agencies and organizations, FANRP is enhancing national surveys by adding a food assistance dimension. FANRP's long-term research themes are dietary and nutritional outcomes, food program targeting and delivery, and program dynamics and administration.

Goal 4: Agriculture and the Environment are in Harmony

In this area, ERS research and analytical efforts in cooperation with the Natural Resource Conservation Service (NRCS) support development of Federal farm, natural resource, and rural policies and programs. Such efforts promote long-term sustainability goals, improved agricultural competitiveness, and economic growth. This effort requires analyses of the profitability and environmental impacts of alternative production management systems in addition to the cost-effectiveness and equity of public sector conservation policies and programs. ERS analysts focus on evaluating the benefits and costs of alternative agricultural and environmental policies and programs in order to assess the relationship between improvements in environmental quality and increases in agricultural competitiveness. For example, in its

January 2001 publication Agri-Environmental Policy at the Crossroads: Guideposts on a Changing Landscape, ERS focused on the issues and tradeoffs that policymakers would face in designing a program of agri-environmental payments. ERS is continuing to work with NRCS to provide a combination of economic, farm structural, and geographic information to inform ongoing decision making about the design of conservation programs and the regulation of animal waste.

ERS is seeing the payoff of its having put increasing emphasis on understanding and analyzing trends in adoption of genetically modified crops and the emergence of markets for both genetically modified and non-genetically modified commodities—becoming a leader in the public sector in releasing new and timely information on this topic. In 2000, Genetically Engineered Crops for Pest Management in U.S. Agriculture reported that adoption of genetically engineered (GE) crops with traits for pest management has risen dramatically since their commercial introduction in the mid-1990s. The research provided important new understanding of the impacts of adopting GE crops on crop yields, net returns, and pesticide use.

Goal 5: Enhanced economic opportunity and quality of life for rural Americans

The ERS contribution to this goal is based on analysis that identifies how investment, technology, employment opportunities and job training, Federal policies, and demographic trends affect rural America's capacity to prosper in the global marketplace. ERS economists analyze rural financial markets and how the availability of credit (particularly Federal credit) and public spending, taxes, and regulations influence rural economic development. ERS analyzes the changing size and characteristics of rural and farm populations and the implications of these changes on the performance of rural economies. In addition, ERS studies the economic structure and performance of non-farm economic activities in rural areas, including the rebound in population growth in non-metropolitan counties.

ERS also monitors rural earnings and labor market trends with emphasis on regional and other disaggregations in order to provide insight into the determinants of variation in trends among rural counties. Such work yields a better understanding of the factors that promote rural vitality and the opportunities for effective public sector intervention.

An ERS study currently underway will identify and analyze factors affecting growth in remote rural areas. This study is part of a multi-country international project conducted under the auspices of the Organization for Economic Cooperation and Development. Other studies are investigating the effects of various policy scenarios, including increases in the minimum wage and the Earned Income Tax Credit, on the poverty and employment status of rural welfare recipients. ERS researchers are also examining Federal credit and tax policies to assess their impact on farm families and the intergenerational transfer of farm assets. Researchers are also assessing the impacts of structural and policy changes on the costs and availability of electric, telecommunications, and financial services in rural America.

ERS continues to monitor the financial situation of the farm sector through establishing farm business organization and performance benchmarks. This task includes study of the financial position of farmers who employ technological advances and innovative risk management strategies in their businesses, compared with the financial position of farmers who use more traditional approaches.

ERS has developed and widely disseminated a new farm typology that goes beyond the traditional classification of farms by sales class alone to a grouping that is much more reflective of operators' expectations from farming, stage in their life cycle, and dependence on agriculture for household income. Continued applications of the typology are bringing new understanding about the diversity of the U.S. farm community, factors that can enhance success among small and minority-owned farms, and the implications for the different types of farms of alternative approaches to providing safety nets for farm households. In October 2000 ERS published A Safety Net for Farm Households, which applies the typology to four scenarios for government assistance to agriculture based on the concept of ensuring some minimum standard of living.

ECONOMIC ANALYSIS AND EXPERT WITNESS SUPPORT FOR THE PIGFORD CONSENT DECREE

The request for an increase of $600,000 is for costs associated with economic analysis and expert witness litigation support for the Pigford Consent Decree which is from a class action lawsuit that alleges racial discrimination in the administration of USDA farm loan and benefit programs. The USDA and the Department of Justice (DOJ) determined that it was critical that expert economic analysis be made available to support DOJ work. ERS's role is to generate an objective estimate of eco-

nomic damages in each particular case using a consistent, understandable, and defensible methodology that is based on standardized farm accounting procedures.

CUSTOMERS, PARTNERS, AND STAKEHOLDERS

The ultimate beneficiaries of ERS's program are the American people whose well-being is improved by informed public and private decisionmaking leading to more effective resource allocation. ERS shapes its program and products principally to serve key decision makers who routinely make or influence public policy and program decisions. This clientele includes White House and USDA policy officials and program administrators/managers; the U.S. Congress; other Federal agencies and State and local government officials; and domestic and international environmental, consumer, and other public organizations, including farm and industry groups interested in public policy issues.

ERS depends heavily on working relationships with other organizations and individuals to accomplish its mission. Key partners include: the National Agricultural Statistics Service for primary data collection; universities for research collaboration; the media as disseminators of ERS analyses; and other government agencies and departments for data information and services.

CLOSING REMARKS

I appreciate the support that this Committee has given ERS in the past and look forward to continue working with you and your staff to ensure that ERS makes the most effective and appropriate use of the public resources. Thank you.

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE

PREPARED STATEMENT OF DR. COLIEN HEFFERAN, ADMINISTRATOR

Mr. Chairman and Members of the Committee, I appreciate the opportunity to submit the proposed fiscal year 2002 budget for the Cooperative State Research, Education, and Extension Service (CSREES), one of four agencies in the Research, Education, and Economics (REE) mission area of the United States Department of Agriculture (USDA). I am especially honored as this is my first opportunity to submit testimony to this Committee as the Administrator of CSREES.

CSREES works in partnership with the land-grant university system, other colleges and universities, and public and private research and education organizations, in concert with the Secretary of Agriculture and the intent of Congress, to initiate and develop agricultural research, extension and higher education programs. This partnership has a breadth of expertise that is ready to deliver solutions to problems facing U.S. agriculture today. For example, University of California scientists are developing a foot-and-mouth disease transmission model to simulate a wide range of possible epidemic patterns and identify eradication strategies for each. The model will ultimately be used to address important questions about foot-and-mouth disease eradication and is expected to be a useful tool for veterinary decision-makers, when and if the disease returns to the United States. Through extension and education activities, the system will be able to mobilize personnel to inform and assist producers and the public on technological advances about this and other agricultural problems.

The broad portfolio of CSREES programs has supported scientific discovery from conception to application. Formula funds have leveraged dollars from other sources, provided the start-up funds needed for an investigator to establish a research program and build the capacity to compete successfully in a competitive program, and allowed for a rapid response to an emerging problem. Competitively funded research from the National Research Initiative (NRI) has supported individual investigators undertaking basic research aimed at generating new knowledge. Research results are applied to real life problems through the Cooperative Extension System's outreach efforts. All of these efforts are undertaken in an environment that prepares students to meet the ongoing needs of agriculture, the environment, individuals and communities.

It is this coordinated, continuum of science—discovery to application—that has strengthened U.S. agriculture and has made the U.S. the world leader in science. For example, in 1998, scientists at Iowa State University received an NRI award for $130,000 entitled, "Optimizing Marker-assisted Selection for Genetic Improvement of Livestock." The primary goal of this award was to develop advanced mathematical methods for selection and breeding strategies needed to achieve superior livestock. A subsequent Initiative for Future Agriculture and Food Systems award

entitled, "Mapping and Use of QTL for Marker-assisted Improvement of Meat Quality in Pigs," made to the same scientists in 2000 for $587,722, built on work supported by the NRI award and was the first extended, large-scale study to identify desirable pork quality traits in commercial breeds. The results of this study will be accessible by interested stakeholders for industry implementation.

CSREES continues to strive to meet the recurring challenge of ensuring that its programs are flexible and responsive to national needs, as expressed by stakeholders and as reflected in Department and Administration priorities. In a recent speech, Secretary Veneman identified research and development as the way to find new solutions for issues related to energy, biotechnology, food safety, and the environment. CSREES-supported research and education are meeting these challenges.

Work is being conducted under the National Research Initiative and formula programs on biobased products to address energy and other needs that will generate information and tools for farmers to grow, harvest, and process alternative crops, and for manufacturers to convert renewable, raw materials to useful products for industry and/or consumers. For example, Smith-Lever formula funding has helped Colorado extension alternative crops specialists study three fiber crops—Kenaf, sunn hemp and sesbania—that can be processed into particle board, paper, and even lumber. These products could provide the public with an excellent alternative to wood products, the demand for which continues to climb.

The use and impact of biotechnology is transforming many sectors, including agriculture. CSREES-supported biotechnology research funded through formula funds and competitive grants not only has the potential to facilitate the development of enhanced foods and new food products, but also new non-food products, including lubricants, oils, and plastics.

The CSREES integrated research, extension and education Food Safety Program is supporting research to reduce the risk of drug residues in food products as well as the level of microbial resistance to antibiotics. This cutting edge research will greatly improve the safety and quality of the Nation's food supply, and also will contribute to reducing the chance of microbes causing illness that is not treatable in the human population.

In a Nation that values the environment—clean air and water, unique ecosystems, and pristine land—we must ensure that our production practices, as well as our public policies and programs affecting these practices, are consistent with the dual objectives of promoting competitiveness while preserving natural resources and environmental quality. To achieve these goals, a better understanding of the complex interactions between agricultural production and the environment is needed. Scientists in Missouri, supported by Hatch Act funds, have developed new methods of capturing nutrients in swine waste for crops, reducing fertilizer costs by $1,700 to $6,500 for each of the state's family-operated swine farms, at the same time reducing nitrogen in water. High phosphorus concentrations in the soil from poultry litter were troublesome until Delaware scientists, supported by Hatch Act funds, helped to develop new feed programs that allow chickens to digest phosphorus more efficiently. Phosphorus in poultry litter has been reduced by as much as 80 percent, helping protect water in poultry production areas nationwide. California extension personnel helped reduce sediment that was trapping 1,300 pounds of pesticide residues in the ecosystem and harming river wildlife in the San Joaquin River and Sacramento Delta. Approximately 68 percent of the farmland in the area is under management systems that have kept tons of sediment out of rivers, lakes, and streams.

CSREES is committed to seven overarching themes in its fiscal year 2002 budget and proposes sustained funding at the fiscal year 2001 level for:

—Competitively awarded grant programs such as the NRI and the Initiative for Future Agriculture and Food Systems;
—Funding for targeted areas, including Pest Control Related, Food Safety, and other national priority issues;
—Integrated research, extension, and education activities, as evidenced by continued support at the $41.8 million level for the Integrated Activities Account;
—A balanced program portfolio, as evidenced by sustained support at the fiscal year 2001 level for all formula programs;
—Continued support for partnerships to reach diverse audiences through funding for the 1890 and 1994 land-grant institutions, Alaska Native-Serving and Native Hawaiian-Serving Institutions, and for Hispanic-Serving Institutions;
—Development of human capacity to address the need for a highly trained cadre of quality scientists, engineers, managers, and technical specialists in the food and fiber systems through funding the Higher Education Programs; and
—Streamlined management and improved accountability of CSREES programs through sustained support for the Research, Education, and Economics Information System, and through the integration of research, extension, and education

under certain programs as intended in the Agricultural Research, Extension, and Education Reform Act of 1998.

FISCAL YEAR 2002 BUDGET HIGHLIGHTS

The CSREES budget proposal, which totals nearly $1 billion, provides funding for ongoing programs, and key provisions of the Agricultural Research, Extension and Education Reform Act of 1998. The fiscal year 2002 budget proposes to fund most programs at the fiscal year 2001 level, with the exception of about $118 million for earmarked projects, which are proposed for elimination. Programs receiving continued support in fiscal year 2002 include:

Research and extension formula programs proposed for funding at the fiscal year 2001 appropriated level of $544 million. CSREES works closely with partner institutions through the annual planning process and other means to target funds to priority issues facing agricultural producers, natural resource managers, and rural residents. The fiscal year 2002 budget proposes $106 million for the NRI to fund grants that address key problems of national scope through research in the biological, physical and social sciences as related to agriculture. The program provides the critical agricultural knowledge base needed to solve immediate and future agricultural problems; it is the seed needed to assure continuing scientific advancement in agriculture. NRI is a unique program within CSREES that complements, but does not duplicate, the Integrated Research, Education, and Extension (Integrated) programs and the Initiative for Future Agriculture and Food Systems program.

One of the most crucial variables in the food and fiber system is scientific and professional human capital. The research and education agenda of the future depends on a highly trained cadre of qualified scientists, engineers, managers, and technical specialists. The budget funds CSREES Higher Education Programs at about $35 million, including $7.1 million to be added to the principal of the Native American Institutions Endowment Fund to improve the education capacity at Tribal colleges. The types of activities that can be supported with the interest derived from the endowment funds recently have been expanded to include facility renovation and construction projects. The budget also includes $3 million for a program initiated in fiscal year 2001 for Alaska Native-serving and Native Hawaiian-serving Institutions.

Americans recognize that their quality of life depends largely on economic, physical, and institutional factors affecting their families, businesses, and communities. The fast pace of changes in these factors, and their increasingly complex interactions, present a growing challenge. CSREES, in partnership with the land-grant university system, enhances the capabilities of individuals, families, and communities to improve their quality of life. The fiscal year 2002 budget proposes continued support for programs such as Expanded Food and Nutrition Education Program, Children, Youth and Families, and Youth Farm Safety Education and Certification.

The fiscal year 2002 budget provides $38 million for Food Quality Protection Act (FQPA) related pest control activities, the same as the fiscal year 2001 level. Emphasis is placed on developing alternatives to replace chemical pest controls that are at-risk of being taken off the market due to the stricter pesticide registration requirements resulting from the implementation of FQPA. The FQPA Risk Mitigation Program aims to establish longer-term pest control alternatives for major crops while the Crops at Risk Program supports projects to develop intermediate term alternatives in place of pesticides used on fruit and vegetable crops.

The Administration has proposed not to continue funding for program earmarks. We believe that competitive, peer-reviewed programs that respond to nationwide issues and have national application, and formula programs represent a higher priority use of taxpayer dollars.

MANDATORY PROGRAMS

The fiscal year 2002 budget proposes funding for the Fund for Rural America (Fund) program. As determined by the Secretary, funding supports competitive grants for research, education, and extension. Projects under the Fund are for national, regional and multistate system level approaches to strengthen international competitiveness, productivity, efficiency and profitability; to enhance natural resource management and environmental stewardship; and to strengthen rural communities. The fiscal year 2002 budget proposes $120 million for the Initiative for Future Agriculture and Food Systems (IFAFS) program, which focuses on research that is cutting-edge, multi-institutional and directly linked to producer and consumer issues through extension or education programs. In fiscal year 2000, the agency received almost 1,000 proposals for the IFAFS program, 25 percent of which were rated highly meritorious by peer reviewers; the agency was able to fund fewer

than 9 percent of these proposals. The budget also proposes funding for the Community Food Projects grants program at $2.5 million (supported with mandatory funds provided by the Food and Nutrition Service's Food Stamp Program).

SUMMARY

The broad portfolio of CSREES programs, including both formula based and competitively-awarded funds, ensures that research extends the transfer and implementation of practical outcomes. With this broad portfolio as a base, the strong Federal, State, and university partnership has supported great successes that have far reaching impacts on the food we eat, the environment in which we live, human health, and the quality of life of our citizens.

GRAIN INSPECTION, PACKERS AND STOCKYARDS ADMINISTRATION

PREPARED STATEMENT OF DAVID R. SHIPMAN, ACTING ADMINISTRATOR

Mr. Chairman and members of the Committee, I am pleased to highlight the accomplishments of the Grain Inspection, Packers and Stockyards Administration, and to submit our fiscal year 2002 budget proposal.

GIPSA is part of USDA's Marketing and Regulatory Programs, which works to ensure a productive and competitive global marketplace for U.S. agricultural products. Our mission is to facilitate the marketing of livestock, poultry, meat, cereals, oilseeds, and related agricultural products, and to promote fair and competitive trading practices for the overall benefit of consumers and American agriculture.

GIPSA has both regulatory and service roles. Our Packers and Stockyards Programs (P&S) ensure open and competitive markets for livestock, meat, and poultry while providing financial protection to livestock producers. The Agency's Federal Grain Inspection Service (FGIS) provides the U.S. grain market with Federal quality standards and a uniform system for applying them. It also provides impartial, accurate measurements of grain quality to promote an equitable and efficient U.S. grain marketing system. GIPSA helps ensure fair and competitive marketing systems for all involved in the merchandising of livestock, meat, and poultry, and grain and related products.

ORGANIZATION

We are headquartered in Washington, DC. Our P&S program area has 180 employees and three regional offices. The Atlanta Regional Office is responsible for national issues relating to poultry production and processing; the Denver office for livestock concerns; and the Des Moines office focuses on swine production and processing. Legal, financial, and economics experts from the various locations work together to address national issues and more effectively monitor emerging technology, evolving marketing strategies, and other issues affecting the industries and the constituencies served by the Agency.

Federal grain personnel work as part of a unique public-private partnership with over 2,000 State and private inspectors to provide high-quality inspection and weighing services on a user-fee basis across the Nation. Federal inspectors service 38 export elevators in Georgia, Illinois, Indiana, Louisiana, Maryland, New York, Ohio, Oregon, and Texas. Eight delegated States provide service at an additional 19 export elevators located in Alabama, California, Minnesota, Mississippi, South Carolina, Virginia, Washington, and Wisconsin. In Canada, official service on U.S. grain transported through Canadian ports is provided under a cooperative agreement by the Canadian Grain Commission with GIPSA oversight at 7 locations. Fifty-nine (59) designated agencies service the domestic market under GIPSA supervision. In fiscal year 2000, this unique mix of Federal, State, and private inspection agencies provided nearly 2 million inspections on over 238 million metric tons of grains and oilseeds; weighed over 105 million metric tons of grain; and issued more than 89,000 official weight certificates.

Our Technical Center in Kansas City, Missouri, is GIPSA's central laboratory for technical leadership and support for the official inspection system and U.S. grain industry. The Center is home to the GIPSA Biotechnology Reference Laboratory, which accredits private testing labs conducting DNA-based testing for biotechnology derived grains and verifies the performance of rapid tests for biotechnology derived grains.

GIPSA'S PACKERS AND STOCKYARDS PROGRAMS (P&S)

The P&S Program fosters fair competition, and guards against deceptive and fraudulent practices affecting the movement and price of meat animals and their products. The production and marketing of livestock, meat and poultry are an important part of American agriculture and the Nation's economy.

With only 180 employees, P&S monitors the livestock, meat, and poultry industries, estimated by the Department of Commerce in fiscal year 2000 to have an annual wholesale value of $142 billion. At the close of 2000 there were 1,318 stockyards; 6,195 market agencies and dealers, 2,039 packer buyers registered with GIPSA. An estimated 6,000 slaughtering and processing packers are subject to the Act. In fiscal year 2000, 266 slaughtering packers, each of whom purchased over $500,000 of livestock in 1999, were required to be bonded and file reports with GIPSA. In addition, there were 205 poultry firms and a significant number of meat distributors, brokers, and dealers subject to the Act.

Last year, GIPSA conducted over 1,800 investigations, a 33 percent increase over the previous year. Most violations were corrected voluntarily, with several resulting in livestock and poultry producers receiving additional funds for the sale of their products. During fiscal year 2000, 17 administrative or justice complaints were issued (a net increase of 5 over the previous year) to bring subject firms into compliance with the Act. In addition, USDA issued 13 decisions and orders against 21 individuals or firms for violating the Act.

GIPSA continues to provide payment protection to livestock and poultry producers. Financial investigations during last year resulted in $5.9 million being restored to custodial accounts established and maintained for the benefit of livestock sellers. This is more than double fiscal year 1999 restoration figures of $2.7 million. Since the 1976 amendments to the P&S Act, livestock sellers have been paid $59.7 million under the statutory trust provision. In 2000, one poultry trust complaint received by GIPSA that resulted in payment of $250,000 to live poultry growers. By comparison, there were none in 1999. During fiscal year 2000, 192 insolvent dealers and market agencies corrected or reduced their insolvencies by $6.7 million, an increase of more than $2 million from the previous year. Insolvent packers corrected or reduced the insolvencies by $2.2 million.

Many producers and growers are not adequately aware of the protections provided under the P&S Act. In the past 2 years, GIPSA stepped up outreach activities to better educate the industry about the Act and GIPSA's regulatory role in the market. GIPSA held a series of town hall meetings to discuss salient issues with many different segments of the poultry and swine industries. In fiscal year 2000, GIPSA held 12 outreach programs in the major U.S. poultry producing areas. Participants agreed that the poultry industry has a greater awareness of GIPSA's authority under the Act and regulations because of these efforts. As a result of participation in the town hall meetings, grower-oriented organizations and integrators have invited GIPSA to attend industry meetings and conferences. GIPSA plans to participate in another series of meetings with beef and sheep industry representatives.

In addition to the town hall meetings, GIPSA sponsored a Millennium Conference to better understand the issues facing our constituencies and to honor millennium farmers. We also sponsored a series of regional meetings with States Attorneys Generals, and Agricultural Commissioners and Secretaries to help us develop stronger strategic alliances in serving the agricultural community. We recognize the importance of staying in touch with growers, producers, and federal and state representatives to understand, stay abreast, and anticipate issues confronting the industry. GIPSA has actively cultivated a broader base of understanding with growers and producers through public outreach. We anticipate continuing this effort.

Our regulatory responsibilities are at the heart of our mission. To this end, GIPSA closely monitors practices that may impede the free trade of livestock, meat, and poultry. A high priority is placed on investigating all complaints and further developing information received concerning allegations of anticompetitive, unjustly discriminatory, or unfair behavior in the livestock, meat, and poultry industries. Appropriate corrective action is initiated when evidence of these practices is discovered.

Rapid Response teams continue to address urgent industry issues and are deployed when a situation warrants immediate attention or action. The ability of these teams to respond within 36–48 hours of being notified of a crisis provides the public with more immediate notification of fiduciary problems with a stockyard or market agency. Last fiscal year, 15 teams were deployed to investigate cases in 9 states. Teams helped recover more than $3 million for growers and producers. The Agency also provides a hotline (1–800–998–3447) on which constituents may anonymously

voice their concerns. GIPSA responds to and investigates all issues addressed by the callers. Last year the Agency responded to 140 calls, compared to 126 in 1999.

GIPSA also is strengthening investigations and assessments of competitive implications of structural changes in the livestock, meatpacking, and poultry industries. To further this initiative, GIPSA entered into five cooperative research agreements in fiscal year 1999. Two examine competitive conditions in the beef markets, two address competitive issues and compensation methods used in the broiler production, and the final project examines bidding behavior in a laboratory setting to gain insights into expected behavior in actual markets. These projects will be completed in fiscal year 2001 and fiscal year 2002.

GIPSA also has made arrangements to obtain special procurement information annually from the Nation's top 15 steer and heifer slaughter firms. This information is related to livestock purchased through contracts, packer feeding arrangements, or marketing and formula-priced transactions. Much more work is needed to determine the effects of these captive supplies in both the beef and pork industries.

Currently, GIPSA is litigating two major cases against two of the largest packers in the Nation. The first involves a firm alleged to have violated the Act by failing to notify sellers that it had changed its equation for estimating the lean percent of animals purchased on a carcass merit basis. It is alleged that the company underpaid more than 1,250 farmers by about $1.8 million. The second case, and the complaint filed, alleges that a company retaliated against a producer by failing to bid or purchase his or her animals. GIPSA has incurred major expenses and resources preparing for each of these cases. As an example, in the first instance, we spent almost a $½ million in litigating this case.

In addition to normal regulatory duties, GIPSA has been tasked with four Congressional Mandates, which will impact the Agency next year, and in subsequent years. They are the Swine Contract Library, Captive Supply Study, annual Assessment the Cattle and Hog Industries, and the Agency's implementation of the GAO Report.

The first mandate, the Swine Contract Library, was contained in the Agricultural Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act of 2000 (Public Law 106–78), signed into law on October 22, 1999. It amended the P&S Act to require GIPSA to establish and maintain a library of contract provisions offered by packers to swine producers for the purchase of swine and to make these provisions available to the public. The swine contract library must include swine packing plants with a slaughter capacity of 100,000 swine or more per year; this includes approximately 50 plants owned by 29 packers which account for over 95 percent of the market. These 29 packers are required to provide monthly reports to GIPSA specifying the number of swine committed and the maximum number of swine to be delivered over the next six to twelve months by contract type.

GIPSA published a Notice of Proposed Rulemaking on September 5, 2000 and is drafting the final rule. In addition to the rulemaking process, GIPSA has devoted resources to implement the actual contract library, involving computer hardware and software development, and data collection forms. The library will use a Web-based system facilitating data input from swine packers and data access by the public.

The second mandate is a study directed by a Conference Report (House Report No. 106–948) for GIPSA to complete a comprehensive study on the issue of Captive Supply by September 30, 2001. As mandated, the report will examine and report on whether or not cattle that are procured pursuant to a captive supply arrangement by a packer's non-reporting subsidiary, affiliate and owners, officers and employees are being included in the percentages as captive supply. Additionally, the report will include the rationale for differences in captive supplies reported in the P&S Annual Statistical Report and those reported by other entities.

The third mandate requires the Agency to submit an annual report to Congress that assesses the cattle and hog industries. The Packers and Stockyards Act was amended in the Grain Standards and Warehouse Improvement Act of 2000 (Public Law 106–472) to require the Agency to submit an Annual Report Assessing the Cattle and Hog Industries. The report will include an assessment of the general economic state of the cattle and hog industries, changing business practices in these industries and areas of concern under the P&S Act. It is estimated that 2,000 staff hours and $72,000 were spent in compiling this report for 2000.

The final mandate began with the General Accounting Office's (GAO) Report to Congress, issued in September 2000, "Actions Needed to Improve Investigations of Competitive Practices." The Grain Standards and Warehouse Improvement Act of 2000 (Public Law 106–472) required implementation of the recommendations in the GAO Report as well as a report describing the actions taken to improve investiga-

tions of competitive practices by November 9, 2001. The report and the actions needed to improve investigations are concomitantly moving forward.

The GAO report addressed actions to improve GIPSA's ability to investigate complex issues. The report suggests that the Secretary of Agriculture develop a teamwork approach with GIPSA economists and Office of General Counsel (OGC) attorneys for complex investigations. We began implementing this recommendation a month after the September report with combined competition training for legal specialists, economists and OGC attorneys. GIPSA now has two legal specialists in each regional office. We have formalized procedures within P&S Programs by instituting investigation reviews by senior management when cases involve issues of competition, are deemed to be complex, are considered to be a large investigation, involve more than one unit (financial, competition, trade practices) in the investigation, when more than one region is involved, or when unusual amounts of resources are required. The regional attorneys review each case before they are submitted for consideration to senior management. Once senior management has reviewed each case the investigation proceeds, and each case is monitored throughout the investigation. OGC has been asked to review the investigation plans prior to commencement of the investigation and thus has been integrated into the investigative process of complex cases at their initiation.

The GAO report recommended that GIPSA improve its competitive investigations by adopting methods and guidance similar to those used by the Department of Justice (DOJ) and the Federal Trade Commission (FTC). GIPSA, working through the Department's Office of the General Counsel, is reviewing DOJ and FTC investigative procedures.

The GAO report recommended that the Secretary modify the grade structure for economists. The process of upgrading economists' and legal specialists' positions is underway and will hopefully allow GIPSA to hire and retain well-qualified individuals. We have reviewed and instituted procedures that will better use the legal expertise of our legal specialists in each regional office. The advice and critical legal review of the cases should improve the process and allow GIPSA to operate more effectively.

The GAO report also suggests that GIPSA provide industry participants and Congress with clarifications of the Agency's views on competitive activities by reporting changing business practices in the cattle and hog industries and identifying market operations or activities which raise concerns. We were mandated to provide an annual report assessing the cattle and hog industries, and to conduct a study on the issue of captive supplies. We have also taken action to hire an outreach coordinator to improve our communication with Congress and the public we serve. We also anticipate using the knowledge gained in broad-based investigations by communicating that intelligence to the industry or industries that it addresses.

In addition to the Congressional mandates, GIPSA will be participating in a GAO review initiated by Senator Daschle to examine our economic models. He has asked the GAO to "assess the extent to which these models may be understating the effects of imports, market concentration, and the use of marketing agreements and forward contracts on domestic cattle prices." Senator Daschle has also requested that GAO provide recommendations on how our models could be "improved or revised, to provide the most comprehensive analysis possible of the impact of certain factors on prices at the producer level, including: import volumes and competition; increasing use of marketing agreements and forward contracts; and increasing consolidation in the processing, wholesaling and retail distribution sectors." We fully expect GAO to review the 1996 packer concentration study, the follow-up cooperative agreements with universities that examined concentration and captive supplies, and other activities relating to concentration and captive supplies. GAO expects to complete its investigation within one year.

While working to be wholly responsive to Congressional mandates and to provide timely and insightful information to GAO, GIPSA has initiated the development of rules to help us better serve our various constituencies. The rules will support our enforcement of the Act by defining requirements needed for our investigations of violations of the Act. We are currently working on six rulemaking initiatives. They are, in priority order based on program needs and the least number of steps for completion and implementation: swine contract library, packer record keeping, contract disclosure, non-reporting of price, premiums and discounts, and string sales.

Swine Contract Library.—GIPSA is drafting a final rule for the Swine Contract Library. The proposed rule would require certain packers to file swine marketing or purchase contracts with GIPSA and would require GIPSA to publish monthly reports about available swine marketing contracts.

We hope to move all of the proposed regulations forward in the next year.

During fiscal year 2000, GIPSA amended existing scales and weighing regulations under the Act. The feed weighing regulation now includes a requirement of weighing feed whenever the weight of feed is a factor in determining payment or settlement under a livestock or poultry growing arrangement.

Mr. Chairman and members of the Committee, GIPSA teams of legal, financial, economic specialists will be addressing 8 cases scheduled for hearing, including reparations; 14 cases pending review in the Agency, and 50 cases pending review in the OGC (this number includes referrals, docketed complaints and reparations).

GIPSA will actively seek to serve the industry by: providing payment protection to livestock and poultry producers; increasing the number of competitive investigations of potential violations of the Act; pursuing voluntary corrections of violations of the Act which will likely result in livestock and poultry producers receiving additional funds; continuing to reach out to both educate and inform constituencies served by the agency of the benefits and protections offered to livestock and poultry producers; monitoring and responding rapidly to complaints of anticompetitive, unjustly discriminatory or unfair behavior in the livestock, meat and poultry industries; pursuing cooperative agreements which contribute valuable information to GIPSA's economic understanding of the industries; facing off with industry giants and expending resources to address violations of the Act; responding thoroughly and responsibly to all governmental inquiries and Congressional mandates; pursuing rulemaking which enhances GIPSA's ability investigate and litigate violations of the Act.

GIPSA'S FEDERAL GRAIN INSPECTION SERVICE

GIPSA's grain inspection program facilitates the marketing of U.S. grain and related commodities under the authority of the U.S. Grain Standards Act (USGSA) and the Agricultural Marketing Act of 1946 (AMA). GIPSA provides the market with descriptions (grades) and testing methodologies to measure the quality and quantity of grain, rice, edible beans, and related commodities; provides an array of inspection and weighing services, on a fee basis, through a unique partnership of Federal, State, and private laboratories; and ensures that the standards are applied and the weights recorded fairly and accurately. As an impartial, third-party in the market, we advance the orderly and efficient marketing and effective distribution of U.S. grain and other assigned commodities from the Nation's farms to domestic and international buyers.

For an average cost of 23 cents per metric ton of grain in fiscal year 2000, exporters received USDA export certificates from GIPSA which they used to market over $20 billion worth of cereals and oilseeds. Likewise, here at home, buyers and handlers requested over 1.9 million domestic inspections that facilitated the trading of 128 million metric tons of cereals and oilseeds.

To date, the official grain inspection system has operated in a supply driven food chain. Grain was produced, delivered to the elevator and marketed as a commodity with limited concern about specific consumer quality preferences. Buyers relied on the grades and standards to describe the general quality needed to produce a quality product and provide the ultimate consumer with abundant and wholesome food.

Today, the need for more efficient processing and the demands of consumers are rewriting the rules. Growth in specialty grain markets and the controversy over biotechnology-derived crops are forcing the U.S. grain production and marketing system to examine how it will handle volumes of large specialty (non-commodity) products. This transition will likely result on greater reliance on contracting, alliances, vertical integration, and other coordinated mechanisms. It also will drive the industry, from producer to processor, to establish quality assurance systems to meet tougher and more demanding quality specifications while retaining, as much as possible, the inherent benefits of the current grain production, handling, and processing system.

GIPSA's role in this new and evolving marketplace involves providing reliable and practical methods to measure the end-use quality attributes of commodities and specialty products (including non-biotech-derived crops) at the earliest stage of the marketing system. The fair and orderly marketing of grain depends on all in the marketing chain having access to information on the true value of grain. GIPSA must also work with the industry from producer to processor to facilitate the development of quality assurance systems that compliment or, in some incidences reduce the frequency of, product testing while ensuring quality and capturing the benefits of the current marketing system.

The need for increased segregation in production and marketing will increase costs by hampering certain inherent economies of scales and efficiencies provided in the current commodity market. Consequently, industry members will strive to real-

ize greater internal efficiencies through such processes as e-commerce. The official inspection system must understand and respond to these market needs.

To address the greater need of providing all players in the market with the information they need to effectively market biotech and non-biotech grains, in fiscal year 2001, GIPSA opened a biotechnology reference laboratory. The lab provides standardization for the sampling, reference methodologies, and rapid tests for biotech grains. GIPSA's laboratory certifies the performance of rapid tests for the analysis of biotech events, and will accredit independent laboratories using DNA-based testing to determine the presence of modified DNA in grain. Through this laboratory, GIPSA is responding to the market's need for independent sources to verify the reliability and credibility of biotech analyses that differentiate non-biotech from biotech grains and oilseeds. This facilitates information exchange, which, in turn, decreases transaction costs and increases overall market efficiency.

During fiscal year 2001, GIPSA has been instrumental in the Department's efforts to ensure StarLink™ corn is used for only approved feed and non-food industrial uses. StarLink™, developed by Aventis CropScience, is the trade-name for corn genetically modified to be pest resistant by producing a protein called Cry9C. The Environmental Protection Agency registered StarLink™ corn for domestic feed and non-food industrial uses only. In October 2000, Aventis requested voluntary cancellation of its StarLink™ registration, after the variety was found in the human food chain.

GIPSA's biotech reference lab has validated seven rapid test kits for the analysis of Cry9C in corn. These kits are used by all segments of the grain industry to detect Cry9C in corn and to market such corn to only approved uses. We are also using this technology to provide official USDA testing and certification services for the presence of StarLink™ corn under the authority of the United States Grain Standards Act.

In the international arena, GIPSA, working with the Foreign Agricultural Service, was instrumental in developing and then updating a protocol addressing Japan's concerns with food corn imports that may contain low levels of StarLink™ corn. StarLink™ is not approved for food or feed use in Japan. The protocol provides for a practical quality assurance process to meet the Government of Japan's regulatory requirements for StarLink™ corn. The protocol provided a framework from which the industry has developed processes to meet the requirements of other importers of U.S. corn.

Finally, GIPSA is in the midst of a rulemaking undertaken to improve consumer access to information on biotechnology. GIPSA, in conjunction with the Agricultural Marketing Service, published an advance notice of proposed rulemaking (ANPR) seeking public comment on USDA's role in facilitating the marketing of grains, oilseeds, fruits, vegetables, and nuts in today's marketplace with biotech and non-biotech crops. The ANPR was published in the Federal Register on November 30, 2000, with a comment period closing February 28, 2001. In response to public requests, GIPSA reopened and extended the comment period until April 16, 2001. To date, GIPSA has received almost 2,900 comments, the majority of which call for the labeling of biotech foods.

Our efforts to respond to the market's needs for services to facilitate the marketing of biotech and non-biotech grains have been substantial. But a great deal of activity has been underway in other areas as well.

GIPSA evaluates and implements new technology in the official inspection system in response to market needs. Further, the performance of existing official inspection methods is routinely evaluated and improvements are developed as needed. Official inspection methods (including calibration equations) are made available to commercial inspection users to enhance consistency between official and commercial grain inspection results. We are in the process of implementing several types of new technology for grain inspection:

—Digital imaging is being piloted to certify the percentage of broken kernels in milled rice. This new technology could greatly improve the accuracy, consistency, and objectivity of inspection and grading. GIPSA also is using digital imaging to measure the vitreousness of Hard Red Spring and Durum wheats. Finally, we are exploring using digital imaging to help inspectors better interpret and grade difficult or unusual grain characteristics, facilitate training for inspectors, and convey to customers visual information on grain condition.

—GIPSA's work on mycotoxin analysis continues to expand. In addition to establishing aflatoxin testing and reference methods, GIPSA developed and validated a fumonisin reference method, which allowed us to initiate evaluation of fumonisin test kits for use in the official inspection system.

—We are working with the North American Export Grain Association to develop an automated grain inspection system for use at export elevators. An automated

system will provide export elevators with constantly updated grain inspection information five times faster than present manual methods, and may reduce costs to the industry and enhance GIPSA's efficiency.

—GIPSA is working with researchers from academia and the USDA Agricultural Research Service to define wheat protein quality and to develop practical, rapid methods for assessing wheat protein quality in marketing channels.

—We continue to cooperate with entities from Canada, Australia, and several European countries to develop and test a "global" near-infrared transmission (NIRT) calibration to measure the quantity of protein in wheat and barley protein testing. The calibration, based on tests of nearly 40,000 samples of wheat and barley, uses artificial neural network technology to achieve excellent accuracy for very diverse grain types.

—GIPSA is working to develop an NIRT calibration for extractable corn starch. This initiative responds to the needs of suppliers of corn to the corn wet milling industry, who require a quick method to determine the extractable starch present in corn.

GIPSA also is keeping pace with the grain industry's move from paper to e-commerce to streamline, automate, and improve business transactions. Recent advances in information technology have provided the U.S. grain marketing system with tools to provide instantaneous exchange of electronic documents and data among all parties in the trade chain. Electronic commerce companies and business-to-business ventures focused on local, regional, national, and international grain sales are emerging at a record pace, and are resulting in new alliances within the grain industry. Electronic commerce is improving market efficiency, facilitating transparent pricing, offering new price risk management tools to producers, and providing more seamless transactions.

GIPSA is keeping pace with our customers' migration toward this marketing process. We are taking part in pilot tests and demonstrations with electronic commerce vendors, and adopting the latest hardware, software, and available technology so that we are prepared to enter and participate in the electronic commerce arena. GIPSA is actively involved in developing a system to send inspection information generated at multiple locations directly to a customer. We also are prepared to submit electronic inspection information into a vendor's document handling system at the request of applicants. Finally, GIPSA also is pilot testing a computer generated inspection certificate for export cargoes. The pilot will assess global bank and importer acceptance of the new documents.

All of our efforts to improve and streamline our programs and services are paying off for our customers, both in terms of their bottom lines and in greater customer satisfaction. GIPSA's service delivery costs (adjusted for inflation), decreased from $0.27 per metric ton in fiscal year 1994 to $0.23 per metric ton in fiscal year 2000, saving American agriculture over $5 million in fiscal year 2000 alone. These savings in inspection service costs pale in comparison to the savings achieved by the industry through improved productivity.

We are an integral part of America's grain handling infrastructure—a superior infrastructure of storage facilities, rail lines, and waterways that makes American agriculture preeminently successful in the global marketplace. We recognize our role and will continue to provide all members of the U.S. grain handling system with the innovative, high-quality official inspection services they need to efficiently and effectively meet the challenges of a changing marketing environment.

Our outreach and educational efforts to our international customers are maintaining strong open markets for America's grains and oilseeds. One indicator is the number of foreign complaints lodged with GIPSA regarding the quality or quantity of U.S. grain exports. In fiscal year 2000, the number of complaints from importers decreased by 35 percent from fiscal year 1999 levels. GIPSA received 13 quality and quantity complaints from importers on grains inspected under the U.S. Grain Standards Act, involving 355,853 metric tons, or about 0.3 percent by weight, of the total amount of grain exported during the year. This compares to 20 quality and 2 quantity complaints received in fiscal year 1999, representing about 1.4 percent of grain exports by weight.

In fiscal year 2000, GIPSA also responded to customers' needs for technical assistance overseas. Exporters, importers, and end users of U.S. grains and oilseeds, as well as other USDA agencies, USDA cooperator organizations, and other governments, frequently ask for GIPSA expertise, thus requiring personnel to travel overseas. Overseas activities include representing the Agency at grain marketing and grain grading seminars, meeting with foreign governments and grain industry representatives to resolve grain quality and weight discrepancies, helping other countries develop domestic grain and commodity standards and marketing infrastructures, assisting importers with quality specifications, and training local inspectors

in U.S. inspection methods and procedures. Last year, GIPSA received 19 requests for technical assistance overseas.

Our efforts to facilitate the trade of U.S. grains include direct efforts to remove trade barriers. In fiscal year 2000, GIPSA played an integral role in ensuring open markets for America's products by working with APPAMEX, a Mexican grain importers association, to address Mexican importers' grain quality concerns. GIPSA inspectors conducted two sets of seminars in Mexico to explain U.S. sampling and inspection method. In fiscal year 2001, GIPSA will hold additional seminars, conduct two monitoring experiments, and work with officials of Mexico's Ministry of Trade and Ministry of Agriculture to help develop a national inspection system in Mexico patterned after GIPSA's.

Also in fiscal year 2000, GIPSA resolved prior weight complaints from the Philippine Association of Flour Millers (PAFMIL). Thanks to a collaborative cargo monitoring program initiated by GIPSA, and the efforts of a U.S. team of government and industry representatives who reviewed the grain handling, scales, and weighing systems at each of PAFMIL's four flour mills, PAFMIL implemented various improvements to their weighing and handling systems which resolved their concerns.

Finally, GIPSA developed and implemented TCK smut certification procedures to facilitate the marketing of U.S. wheat to China and India in light of their concerns about TCK smut in imported U.S. wheat shipments. GIPSA's procedures helped enable the United States to reach a trade agreement with China.

At home, GIPSA regularly holds seminars and meetings to educate foreign visitors and customers about the quality and value of U.S. grain exports. In fiscal year 2000, GIPSA representatives met in the United States with 89 teams from 50 countries to provide information, technical guidance, and educational seminars. These international outreach efforts help promote greater harmony between U.S. and international standards, and foster a better understanding of the U.S. grain marketing system, the official U.S. grain standards, the national inspection system. This, in turn, reduces the risk of new barriers in today's open and freer global marketplace, enhances purchasers' confidence in U.S. grain, and facilitates the export of U.S. agricultural products.

The grain program will continue to work to ensure our relevance and value to American agriculture. We are reaffirming our commitment to facilitating the marketing of U.S. grain by responding to our customers' needs and providing the highest quality grain inspection and weighing services to all whom we serve.

FISCAL YEAR 2002 BUDGET REQUEST

GIPSA's budget request for fiscal year 2002 is $32.9 million under current law for salaries and expenses and $42.5 million for our Inspection and Weighing Services. GIPSA also is submitting legislation to collect $3.8 million in new user fees in fiscal year 2002.

The President's fiscal year 2002 budget proposes a current law request for grain inspection of $15.1 million. There are proposed increases of $200,000 to support GIPSA's increased role in international trade services and trade activities, $500,000 to develop an ISO–9000 certification program, $100,000 to process comments on a biotechnology rule, and $400,000 to develop and refine technology to detect the presence of biotechnology derived grain and genetic traits expressed in grain. Proposed legislation of $3.8 million in new user fees to cover the costs of grain standardization activities also is being submitted. The budget also proposes a request of $17.8 million for the Agency's P&S Programs. The budget includes an increase of $756,000 for pay costs.

The $200,000 increase would allow GIPSA to strengthen its role international trade services and activities. In the post-GATT environment of the World Trade Organization (WTO) and the North American Free Trade Agreement (NAFTA), the liberalizing trade requirements have prompted some grain and oilseed importing countries to create other barriers to limit or restrict market access. GIPSA has become increasingly involved in addressing international grain trade issues such as emerging sanitary and phytosanitary (SPS) issues and other technical barriers to trade.

Other significant international activities underway include working with our Mexican counterparts to develop a centralized grain grading system and internal quality control program similar to that used in the United States; and a bilateral exchange with China to share information and expertise on our respective grain grading systems.

Our trading partners also are beginning to formulate domestic policies on agricultural biotechnology which will have far reaching implications. In June 2000, at the request of the Foreign Agricultural Service, GIPSA took part in a four-country fact finding mission in Asia to share information on the practical implications of imple-

menting laws or regulations requiring testing and labeling of grains developed through modern biotechnology. These types of exchanges will become increasingly important as countries consider new policies to address consumers' "right to know" or perceived food safety concerns.

The requested additional funding for fiscal year 2002 will be used for salary and benefits for one additional staff person, plus travel and related expenses while on long-term temporary overseas assignments.

The $500,000 increase is to develop an ISO–9000 certification. ISO 9000 is a quality assurance system standard established by the International Organization for Standardization (ISO). The standard establishes a quality management system that assures the quality of a service or a product through internal process controls. ISO 9000 is globally recognized and accepted as a standard designed to produce consistent and reliable quality outputs. Through documentation, training, quality control measurements, audits, and customer feedback, ISO 9000 has become an international industry standard for producing quality services and products.

The U.S. grain industry is experiencing extraordinary and rapid changes in the grain marketing structure. Bioengineering and advances in information technology serve as a catalyst for this change. New value-added products, such as high oil corn, nutritionally dense corn, etc., are emerging onto the market at exceptional rates. These new value-added products provide producers an opportunity to produce grain products at lower costs. Further, information technology advances, such as web-based marketing companies, allow the producer to deal directly with buyers.

GIPSA recognizes the changing market will place severe demands on the official grain inspection program to properly label and identify these various value-added products. In response to these demands, GIPSA believes the implementation of an ISO–9000-based program will facilitate the marketing of grains and provide producers the opportunity to enjoy financial benefits while maintaining minimal Federal involvement in the process. Therefore, GIPSA seeks funding to develop an ISO–9000 certification program where GIPSA is recognized as an ISO certifier.

GIPSA shall initiate the multi-year process to obtain full national accreditation as an ISO–9000 certifier of segmented grain industry accreditation entities. Once this goal is achieved, the American public and grain industry, in particular, will benefit from increased sales due to greater world recognition and confidence in buying U.S. grain products that are produced and marketed under the same international standards as used in the rest of the world.

On May 3, 2000, a series of initiatives was announced to strengthen the science-based regulations for biotechnology and to improve consumer access to information on biotechnology. One specific initiative calls for USDA to publish an advance notice of proposed rulemaking (ANPR) in the Federal Register to seek input from producers, consumers, industry, scientists, and other interested persons on how USDA can best facilitate the marketing of grains, oilseeds, fruits, vegetables, and nuts in a market that includes both crops derived from biotechnology and other crops. At the request of the Department, GIPSA took the lead on this initiative, and the ANPR was published on November 30, 2000.

The ANPR seeks comment in 2 broad areas: (1) current market needs and practices and the costs and benefits associated with those practices; and (2) the feasibility of and need for, USDA' s involvement in quality assurance or other programs to facilitate the marketing of these products in today's evolving market place. If the majority of commentors recommend that USDA has a role to play in offering or overseeing quality assurance or other programs, GIPSA will publish a subsequent proposed rule and final rule. Publication of the proposed rule with comment period should occur in fiscal year 2001. Comment analysis and preparation of a final rule will occur in fiscal year 2002.

This rulemaking is being carried out via a web-based system for public submission and review of comments. This system provides the public with the flexibility to submit comments via the Internet, e-mail, mail, and fax. All comments received are posted to the website and are searchable.

Maintaining the web structure, and processing and analyzing numerous comments will require substantial staff commitment. The requested additional funding for fiscal year 2002 will be used for salary and benefits, maintaining the web structure, analysis of the proposed rule comments, and preparation of a final rule.

The comments may also identify a need for further studies or research prior to publishing a proposed rule. The current commodity market is evolving due to biotechnology and ready solutions may not be apparent without further study.

The budget proposes a $400,000 increase for developing and refining technology to detect the presence of biotechnology derived grain and genetic traits expressed in grain.

Although GIPSA does not regulate biotechnology, the Agency must respond to the accelerated rate at which new crops are entering the market due to advances in biotechnology. GIPSA's role is to facilitate the marketing of grain and provide grain markets with standardized analytical procedures to better assess the value of grain for end use and pricing purposes. GIPSA will continue to provide method standards and improve the biotechnology reference center designed to assist in standardizing the analytical procedures for assessing biotechnology derived grains. The fair and orderly marketing of grain is dependent upon all in the marketing chain having access to information on the true value of grain. It is essential that GIPSA be funded with the additional resources for the program to continue. Funds will be allocated for proper staffing and purchase of advanced technology for the measurement of transgenic material in grain.

Additionally, there is a proposed decrease of $599,000 for the development of a biotechnology reference facility. The fiscal year 2001 Appropriation included a one-time only increase of $600,000 (less 0.22 percent rescission) for the development of a biotechnology reference facility to provide standardized methodologies and rapid assessments used to test bioengineered grains. Development and construction of the facility has been completed. The Agency started offering services during the first half of fiscal year 2001.

CONCLUSION

Mr. Chairman, this concludes my statement. I appreciate the opportunity to testify on behalf of the Grain Inspection, Packers and Stockyards Administration (GIPSA). I will be happy to answer any questions the Committee may have.

OFFICE OF THE CHIEF INFORMATION OFFICER

PREPARED STATEMENT OF IRA L. HOBBS, ACTING CHIEF INFORMATION OFFICER

Mr. Chairman and members of the Subcommittee, the Department of Agriculture appreciates this opportunity to share with you our progress, and the challenges we continue to face, as we utilize information technology—IT—resources to improve services and program delivery to the American people.

The Office of the Chief Information Officer—OCIO—provides USDA agencies with IT policy guidance and oversight, data center and telecommunications operational support services, and desktop support for the Office of the Secretary and the USDA National Appeals Division. In line with the Clinger Cohen Act, Policy, operational guidance, and oversight are provided in areas such as capital planning and investment control, information security, privacy, information technology architecture, telecommunications, information management and collection, and, most recently, electronic government.

The OCIO also manages the USDA National Information Technology Center—NITC—headquartered in Kansas City, Missouri, with a software development facility in Ft. Collins, Colorado and a support office in Washington, D.C. The NITC, with a $52 million budget funded by USDA's Working Capital Fund, provides innovative, cost-effective and secure information technology solutions to support the specific missions of USDA's agencies. NITC also provides computer services to the Federal Aviation Administration, the General Services Administration, and other government clients on a reimbursable basis.

OCIO's goal is to enhance USDA's corporate stewardship of the information technology resources that Congress provides. OCIO is working in partnership with USDA agencies to address the challenges that all institutions face in a rapidly changing information technology environment, as well as specific issues facing USDA because of its varied missions. Over the past year, we have made measurable progress in specific areas, which I will discuss in greater detail later. They include:

—Providing effective leadership and oversight to the Department's Service Center Modernization Initiative—SCMI;
—Enhancing the security of our financial and information assets and protecting the privacy of our customers;
—Promoting the development of e-Government at USDA;
—Improving the management of the Department's telecommunications resources; and
—Strengthening the management of our human and capital IT assets.

USDA'S FISCAL YEAR 2002 INFORMATION TECHNOLOGY BUDGET SUMMARY

The Department's overall budget request for information technology in fiscal year 2002 totals almost $1.5 billion in budget authority. This is higher than the $1.4 billion budget for fiscal year 2001. This amount funds staff, hardware/software purchases and support, contractor services, telecommunications, and other infrastructure expenditures. Almost thirty percent of the total IT spending, approximately $440 million, funds entitlements which are distributed to the states in support of the Food Stamp and the Women, Infants and Children programs—this includes Advanced Planning Documents and Electronic Benefits Transfer Grants to States. The IT budgets for the county-based support agencies, which include the Farm Service Agency—FSA, the Natural Resources Conservation Service—NRCS, and the Rural Development Mission Area—RD—agencies, total approximately $370 million or 25 percent of the USDA total IT budget. The USDA Forest Service's IT budget of about $315 million comprises another 21 percent of the Department's total. Thus 76 percent of the Department's $1.5 billion in IT spending is spread across just three mission areas.

For fiscal year 2002, we estimate that almost forty percent of the Department's IT budget will be devoted to infrastructure and office automation in support of all program mission areas, while the remaining sixty percent will be in direct support of USDA's primary program delivery systems.

To improve the overall corporate management of USDA's IT resources, and to take advantage of economies of scale when purchasing IT products and support, OCIO has established a Department-wide IT Asset Management Team to investigate opportunities for enterprise software licensing to improve methods for managing capital asset inventories, and to develop USDA IT policy recommendations and guidelines. Through the Team's efforts during the past year, several agencies acquired ad hoc query and report generation tools and selected software using enterprise-wide licensing methods; achieving significant cost savings in the process, thereby allowing funds to be used elsewhere by the agencies. This demonstrates the possibilities for economies of scale when USDA agencies work effectively together to find common solutions. These efforts will continue and expand in the foreseeable future.

SERVICE CENTER MODERNIZATION INITIATIVE—INFORMATION TECHNOLOGY

Mr. Chairman, the Service Center Modernization Initiative remains among USDA's highest priorities. This initiative, which includes the Common Computing Environment—CCE, is a major cornerstone of our modernization and technology improvement efforts. In March 2000, the Deputy Secretary modified the OCIO's role from one of oversight only to direct management of IT resources provided by Congress for this initiative. In response, OCIO established a new structure for managing the Service Center Modernization Initiative-Information Technology—SCMI–IT. This structure relies heavily on the three partner agency chief information officers—CIOs—and interagency technical teams working with the OCIO project management staff to resolve technical issues and manage the nine projects that are crucial to the modernization. The Executive Officer of the National Food and Agriculture Council is included to maintain coordination with other SCMI activities. OCIO also moved forward to fully involve employee unions and associations and USDA conservation partners in this structure.

The scope of this initiative includes the program services of the Farm Service Agency, the Natural Resources Conservation Service, and the Rural Development Mission Area. These county-based agencies delivered about $55 billion in farm, conservation and rural development programs and services during fiscal year 2000. These services are provided through a network of over 5600 county level offices at 2,500 co-located sites, and a field workforce of 36,000 Federal and FSA county employees working with an additional 7,000 conservation district employees and 8,000 volunteers. The CCE, together with reengineered business processes, will enable USDA customers to do business with the Department electronically, maximize data sharing between agencies, increase staff efficiencies and provide many other direct customer benefits.

When the SCMI–IT started in 1996/97, IT equipment and systems at the Service Centers consisted largely of 1980's and early 1990's technology that had been only minimally enhanced. These legacy IT systems were acquired and developed independently by each of the three Service Center agencies prior to office collocations. Collocation was implemented but the necessary funding to ensure that all IT systems could be properly integrated under a common IT infrastructure was not provided. Nor was a common management structure put into place. Instead, Service Centers had to rely on an ad-hoc assortment of separate IT systems that could often

not be connected. Telephone systems were separated, Internet access was limited, multiple word-processing and spreadsheet software packages were in use, and data transmission capabilities were limited. This "stove-piping" of systems prohibited information sharing among agencies, employees and customers, and had a direct impact on the service that employees could deliver to customers.

From fiscal year 1997-fiscal year 2000, significant progress was made in addressing portions of the "stove-pipe" technology issue. An initial shared telecommunications system was installed; about 35,000 identical workstations with common office automation software and over 7,500 shareable printers were acquired, as were a small number of other devices such as digital cameras, scanners and Global Positioning System—GPS—units. Additionally, FSA acquired a legacy system connectivity solution. More recently, progress has been made in the following key areas:

—The OCIO Project Management Office working with the Service Center agencies facilitated the development of an integrated operating budget for fiscal year 2001 SCMI–IT activities. The process included the identification of specific activities for each of nine SCMI–IT teams, prioritization of each activity, development of alternatives and presentation and justification to decision makers.

—USDA communicated an overall plan for SCMI–IT in a new document entitled "Service Center Modernization Initiative—Information Technology Blueprint." The Blueprint provides a clear vision and plan for the IT component of the SCMI. It describes what is being done, why it is being done and how the SCMI–IT will benefit employees and customers.

—In November 2000, OCIO awarded a contract for network servers for state and field offices of the county-based agencies. The network servers are a linchpin of the CCE and will tie together the nearly 35,000 CCE workstations that have been purchased over the past two years. The servers enable us to manage these workstations from a central location, provide a common e-mail and messaging system, support initial reengineered processes, and provide additional security and remote management tools.

—To meet the initial requirements of the Freedom to E-file Act and the Government Paperwork Elimination Act—GPEA, two e-Government mandates which require online access to farm and other programs by June 2002 and October 2003 respectively, USDA invested $1.3 million in fiscal year 2000 in the Electronic Access Initiative (EAI). The EAI is designed to establish the technological infrastructure needed to support the first phase of providing electronic access for customers. Three mirror image Web farms were put in place during the first quarter of fiscal year 2001. A comprehensive security plan was also developed to guide the implementation activities to ensure safe, secure and reliable access. This infrastructure was used by the agencies to make 52 agency forms available on-line by December 18, 2000, in order to meet the initial requirements of the Freedom to E-File legislation. Currently, over 200 of the Service Center agencies' most widely used forms are now available for farmers and rural customers to access and download via the Internet. Additional forms are being added as they are converted and cleared through the Office of Management and Budget—OMB.

Major activities this calendar year include the deployment of the network servers that were procured in the first quarter. Also, an additional $2 million capital investment is planned for the EAI this year: about $1 million to build the basic infrastructure capacity and $1 million for digital signature and other security-related solutions necessary to implement the phased requirements of the Freedom to E-File legislation. Other initiatives include updating integrated project plans; continuing to strengthen overall project management; finalization of all CCE architecture components; continued upgrading of CCE workstations; providing adequate training for Service Center employees; and upgrading of the Geographical Information Systems strategy for Service Center agencies.

One of the major challenges remaining for SCMI–IT is to ensure that affordable telecommunications capacity is available for rapidly expanding online services. The Freedom to E-File Act, GPEA, and the movement of the agencies to more Web based applications are increasing the required telecommunications "pipe size" or "bandwidth". The SCMI–IT Telecommunications team is developing a strategic telecommunications plan that identifies current and future bandwidth requirements and pilot tests technical alternatives, such as virtual private networks and satellite communications, to meet these requirements.

The SCMI–IT Security Team is also developing a comprehensive security assessment and plan for the full CCE environment. The plan will identify security problems and risks and the actions needed to address the risks. Additionally, security monitoring and audit tools will be acquired, and a security response team will be established and trained over the remainder of fiscal year 2001.

Two significant and positive changes that have facilitated progress in the CCE initiative were (1) OCIO's increased management role over the IT portion of SCMI and (2) the new direct appropriations that Congress provided for CCE capital investments.

By the end of this calendar year, all SCMI agencies' employees should have access to modern and compatible workstations, the agencies will be on a common robust e-mail system, agencies will be able to electronically share information among themselves and with customers and fully utilize the Internet, and they will be able to reduce the technology administration burden on the field through central remote management of the systems.

Your continued support of this effort is essential for completion of the CCE and the timely high-quality program services it will bring to USDA customers. For fiscal year 2002, $59.4 million, the same as the fiscal year 2001 appropriation, is requested to continue the CCE implementation. These funds will be used to:

—Upgrade the telecommunications capacity to support e-Government and Web based internal applications—$15 million;
—Acquire and deploy large capacity applications servers needed to implement geographic information system—GIS—applications—$32.4 million;
—Purchase long term GIS software licenses for all Service Center agencies—$5.0 million;
—Complete the EAI Web farm initiative—$1.0 million;
—Provide training in the technologies—$3.0 million;
—Support technical architecture, project operations, and computer security improvements—$3.0 million.

The fiscal year 2002 investments will complete the major server and software components of the CCE.

As you know, the President's fiscal year 2002 budget mentions that USDA will merge the IT staff of the three county-based service center agencies into one IT service organization. To properly operate and maintain the new shared CCE technology, we believe common support is both logical and necessary. The details of how to establish this IT support have not been worked out. As we look at options for providing this support we will work with Congress and other appropriate parties.

COMPUTER (CYBER) SYSTEMS SECURITY

We are also continuing to focus on cyber-security. We appreciate the funding which the Congress made available in the OCIO fiscal year 2000 and fiscal year 2001 appropriations to strengthen our Cyber-Security program. With these funds, we have started to build a modern cyber-security program equipped with the staff expertise and management to identify and address security vulnerabilities across the Department's many different agencies, platforms, and networks. Given the pervasive and growing nature of the cyber-security threat to all organizations, we will continue to implement the cyber-security plan we developed in August 1999. The fiscal year 2002 budget request maintains funding for the Cyber-Security program at $4.5 million.

As we have noted in past testimony, the information that USDA agencies manage affects both the financial markets and lives of individuals. The National Finance Center—NFC—in New Orleans processes payroll and administers the Thrift Savings Plan for Federal employees. Rural Development's loan portfolio exceeds $80 billion. The data collected by the National Agricultural Statistical Service—NASS—is vital to the health of our nation's financial markets. Our systems have personal and financial information on millions of customers and on each of our employees. Even more, USDA is increasingly using the Internet to provide customers information about programs and services, and will eventually use it to empower them to transact business with the Department online. With annual payments totaling billions of dollars, we must take prompt and comprehensive action to mitigate what is now an unacceptable high risk of data and potential financial losses.

To implement the Security Action Plan, OCIO has been systematically building a USDA Cyber-Security Program. To lead this program, an Associate CIO for Cyber-Security was appointed in March 2000. Along with acquiring staff and contractor expertise, the OCIO Cyber-Security program has actively engaged USDA's agencies in identifying and addressing urgent weaknesses in policies and procedures, training, day-to-day network management, and monitoring and reporting while developing more detailed implementation plans. In addition, an advisory council consisting of senior executive program officials and IT personnel from across the Department has now officially been chartered to provide broad input into all aspects of cyber-security program and policy development and implementation.

Over the past year, important progress has been made in several areas. For example, the Cyber-Security program is:

—Continuing to obtain staff expertise to supplement resources already on board. Specialists in Physical Security, Configuration Management, and Access Control have recently been hired. These specialists have already begun to conduct oversight activities, while also providing hands on problem solving, training, and promoting awareness in these specialties. Staff soon to be on board will include two Security Engineers, Telecommunications Specialists, and Security Specialists, as well as an Information Survivability Manager, a Policy Analyst, and a Privacy Analyst.

—Working closely with the USDA agency IT community to revise existing security policies and procedures, draft new ones, and develop implementation plans to mitigate problems and systematically improve security practices. These include policies on firewalls, reporting, configuration management, unauthorized access, and others.

—Providing training for USDA security personnel to implement the Department's revised security policies, share best practices, and to address specific problems as they arise continues to be a critical activity for the Cyber-Security program. Training has been conducted in areas such as configuration management, incident response, risk assessment, risk analysis, and Disaster Recovery and Contingency Planning.

—Conducting onsite reviews at critical facilities, including the National Finance Center and the National Information Technology Center. The reviews are designed to determine if security measures, both in place and planned, are adequate to protect the integrity, availability and safety of information resources.

—Making risk assessments an integral part of USDA's security program by using industry expertise to develop comprehensive methodologies that will provide agencies with standardized tools and techniques for performing assessments.

—Employing contract expertise to assist with the definition of USDA security architecture requirements, establishment of the Department's security baseline and the development of a security architecture methodology.

These activities, as well as the policy changes noted before, have already yielded noticeable results. Through implementing the technical and procedural changes mandated by the firewall and server guidance, the Department has in effect started the process of "tightening" its networks and "hardening" its computers so they are less susceptible to intrusion and exploitation. USDA has changed its approach to cyber-security management and operation. Instead of permitting all electronic data and flows to enter our networks and run on our systems, we now permit access only to authorized services related to USDA business needs. This represents a fundamental, 180-degree paradigm shift in USDA's computer security framework.

These initiatives are focused on strengthening information security management at the corporate level. However, while we strengthen the Department's perimeter, individual agencies are also deploying a wide range of security mechanisms. These are critical, as the Department is only as secure as its weakest link. The NFC, the NASS, the Agricultural Marketing Service, and other agencies are continuing to protect the valuable information assets that they manage by deploying firewalls, intrusion detection systems, and public key infrastructures.

Each of these agency-specific efforts is important; however, I must reiterate that USDA is only as secure as its weakest link. When fully implemented, the plan we have developed will ensure that USDA implements comprehensive security practices, while increasing our ability to materially enhance our security in an environment where the challenges will continue to grow exponentially.

E-GOVERNMENT

Strengthening cyber-security is even more critical as the Department increasingly makes programs and services available online in response to public expectations, and legislative and Administration mandates. In addition, GPEA, the Freedom to E-file Act, the Office of Management and Budget—OMB—Performance Goals and Management Initiatives for the fiscal year 2002 Budget, and other mandates all stress the President's vision of a government that has a citizen-based focus, is results-oriented, and, where practicable, market-driven. OMB notes that expanding the application of online procurement and other e-Government services and information is one of five major reform initiatives highlighted by the President.

E-Government represents a fundamental change in the way USDA agencies deliver programs and services, as well as how we process administrative functions. Most USDA agencies are continuing to expand the amount of information available to customers and employees online. During the past year the county-based agencies,

working with OCIO, agreed upon and began implementing a common Web farm infrastructure to forge a more consistent approach to placing farm programs online. Other important applications, for instance are the export/import licenses managed by the Animal and Plant Health Inspection Service, and financial disclosure forms that some USDA employees are required to complete, are also now available online.

Notwithstanding these and other successes, coordinating and directing this process across the Department presents significant challenges for USDA's programmatic leaders, as well as the information technology community. In most cases, the host of Web sites run by USDA agencies are supported by scores of servers, and other technology, which is decentralized and often redundant across agencies. Web enabled applications are often developed without adequate consideration of the impact on the Department's telecommunications network, and in an environment where we cannot effectively leverage each agency's initiatives across the Department. More efforts need to be made to share solutions and best practices across agencies.

In addition to improving coordination across USDA, program and IT leaders are faced with other critical challenges. These include:

—Managing the change to e-Government while maintaining existing program models;
—Prioritizing e-Government initiatives;
—Reengineering USDA's business processes to be customer-centered and optimized for the Internet;
—Funding e-Government initiatives within existing budgets; and
—Building a secure, reliable, technical infrastructure capable of delivering programs and information 24 hours a day, 7 days a week, 365 days a year.

The Department has taken initial steps towards developing a coordinated management framework to guide USDA's transition to electronic government. The Chief Information Officer has been charged with coordinating Department-wide e-Government planning and implementation. A senior management position, the e-Business Executive, was established within the OCIO to lead the effort. Further, each mission area has appointed a Senior Executive Program Leader to serve on an Executive e-Government Council and work with the e-Business Executive to develop plans to implement GPEA, Freedom to E-file and other e-Government initiatives. USDA's initial GPEA plans were submitted to OMB on October 31, 2000. The Executive Council will develop and articulate USDA's corporate vision for e-Government and be responsible for the ongoing planning and implementation of e-Government initiatives. Key tasks for implementing e-Government at USDA include:

—Developing a Department-wide strategy and standards, and determining baselines and performance metrics, as required by Presidential Memorandum, to move towards a digital Department;
—Identifying innovative e-Government and e-Business applications within the private sector and other federal agencies, and sharing best practices with USDA agencies, focusing on mitigating risks;
—Ensuring that USDA's e-Government initiatives meet customer needs through outreach and other customer assessment initiatives;
—Analyzing e-Government applications within USDA agencies, determining where possible linkages exist, and, where practical, leveraging successes across the Department;
—Improving coordination and developing standardized approaches to cross-cutting issues, including: use of the Internet, Intranet, and Extranet, data warehousing, data mining, electronic mail and other electronic directories, online forms, privacy, and training our IT staff to integrate Web-based applications into the Department's technical infrastructure; and
—Working with state and local partners, and other agencies, to develop applications that utilize the Internet to actually conduct e-Business from a customer-centric perspective.

These tasks will demand a tremendous amount of time and resources from USDA agencies. The Department is developing a corporate strategy for e-Government to ensure that we maximize the resources that are being devoted to this effort. In this effort, our emphasis is on leveraging solutions and capitalizing on lessons learned across USDA.

ENTERPRISE NETWORK INITIATIVE

The diverse set of programs that USDA supports require substantial telecommunications resources. As noted earlier, the Service Center modernization efforts, and especially e-Government initiatives, are also rapidly creating additional requirements for the increased bandwidth services and telecommunications equipment necessary to operate effectively and securely in an online environment.

The Department's telecommunications networks can be compared to the nation's highway system. Many local and State roads and highways feed into the Interstate system—an enterprise network of sorts that allows high volume traffic to flow across the country. The enterprise telecommunications backbone consists of a corporate network (interstate highway) with feeder networks (primary and secondary roads) managed at the agency level.

Our vision is to develop a modern and efficient enterprise/corporate network. During the past year, the Department forged a significant agreement towards realizing this vision. For the first time, and after considerable effort by OCIO, several USDA agency Chief Information Officers (including those serving the county-based agencies, the food and nutrition programs, and the Forest Service) have agreed to and signed off on the fundamental vision for developing and operating a shared corporate telecommunications network consistent with the Department's integrated information technology architecture. As envisioned, the Universal Telecommunications Network (UTN) will provide:

—a robust corporate telecommunications network that meets agency/Department business requirements;
—a stable technical architecture which efficiently integrates telecommunications and security components and is flexible to changes in requirements;
—cost-effective, secure, and reliable services twenty-four hours a day, seven days a week (24x7);
—the full range of network management functions (i.e., network coordination and monitoring, and fault, performance, accounting, configuration, and security management); and,
—Service Level Agreements (SLAs) to ensure that services are delivered consistent with mutually agreed-upon performance metrics.

The collective endorsement of the UTN is a significant milestone towards our ongoing efforts to improve management of USDA's telecommunications networks. The UTN will allow USDA to take advantage of economies of scale and provide the potential to acquire best value telecommunications services by maximizing our collective buying power. This includes obtaining the lowest possible price to design and deploy new telecommunications technology across the Department.

STRENGTHENING INFORMATION TECHNOLOGY MANAGEMENT

Also critical to our ability to improve management of USDA's information technology resources are our ongoing efforts to utilize capital planning and investment controls, establish our architecture, and implement other aspects of the Clinger-Cohen Act. These will continue to be high priority activities for us in fiscal year 2002.

The Capital Planning Investment and Control or CPIC process is key to our capacity to strengthen the corporate management of the Department's IT resources. The goal of CPIC is to help agencies better plan for, acquire, and implement information systems to improve their operating performance. CPIC permits the Department to make more informed and intelligent investment decisions regarding IT capital acquisitions. Through USDA's Capital Planning Process, the Executive Information Technology Investment Review Board—EITIRB, which is chaired by the Deputy Secretary, reviews, monitors and approves the Department-wide information technology investments in support of USDA business objectives. The EITIRB's review ensures that the Department's major IT investments are fully aligned with its business processes and architecture, and that the corporate impacts of these investments have been fully considered.

Major capital investments in the Department's fiscal year 2002 IT investment portfolio continue to include: the Service Center Modernization Initiative; the Forest Service 615 Project, which has replaced old Data General hardware and software throughout the agency; and the ongoing deployment of the Foundation Financial Information System, the core accounting software designed to consolidate over 100 separate financial reporting systems and help USDA conform to the requirements of the Federal Financial Manager's Integrity Act.

The CPIC procedure for major systems is supplemented by a moratorium on all "significant" IT acquisitions that has been in place since November 12, 1996. No significant IT acquisitions are to be made unless the CIO issues a waiver from the moratorium. Since the beginning of the moratorium, more than 700 acquisitions have been approved through this waiver process.

USDA has also standardized the means by which project managers report information on investments. All USDA agencies are using the Information Technology Investment Portfolio System (I–TIPS), an enterprise-wide, automated system for inventorying, documenting, prioritizing, tracking and evaluating potential IT invest-

ments. USDA's entire IT portfolio—comprising approximately 600 investments—is currently in I–TIPS. With I–TIPS in place, USDA agencies now have a convenient tool for capturing baseline information and tracking current updates on projects' costs, schedules, risks and benefits.

USDA ARCHITECTURE

In September 2000, USDA issued Version 2 of its "USDA Enterprise Architecture"—EA, which provides the vision, principles, standards, concepts, methods, and governance framework for an enterprise-centric approach for information and information technology architecture. EA Version 2:

—Contains a high-level description of USDA's current enterprise architecture;
— Establishes a future architecture direction that supports USDA's vision of electronic government;
—Lays out the concepts underlying the implementation of the EA;
—Sets forth principles and technical standards guiding future investments; and
—Documents the transition to a more enterprise-centric environment through an established governance system that will guide the EA implementation process.

WORKFORCE PLANNING

Last, but perhaps most important, is the issue of workforce planning. Effectively managing its IT resources requires USDA and other Federal departments to recruit and retain highly skilled information technology employees trained in Federal IT management. We also face the challenge of competing with the private sector to recruit and retain skilled IT professionals. Towards this end, we are working with USDA's human resources community to implement a professional development strategy that includes the recruitment and retention of IT professionals across the Department.

In November 2000, OCIO released a comprehensive report, Analysis of USDA's IT Workforce, which was presented to the USDA community. The report analyzed the seven major IT job series represented in the USDA workforce from 1996 to 2000. It used computer modeling based on various assumptions about future hiring and retirement patterns to forecast workforce trends through 2005. The report concluded that USDA faces the following three major IT workforce challenges: 1) growing retirement eligibility, 2) high turnover rates at lower grade levels, and 3) rising average grade levels, leading to a reduced number of employees in the IT developmental pipeline.

To develop strategies to address these issues, OCIO, together with the USDA Office of Human Resources Management, is overseeing the Department-wide IT-Human Resources—HR—Workforce Planning and Development Working Group. The working group is comprised of HR and IT specialists from various agencies. They are focusing on major hurdles identified by the agencies such as pay differentials between government and private industry, the need for stronger IT management by IT and non-IT managers throughout the Department, more IT training opportunities within the Department, the need for a more thorough exit interview process, institution of retention bonuses such as transport incentives, and the need for closer IT–HR collaboration in order to improve the recruitment and retention of IT personnel. The Group serves a critical role in the Department-wide development and implementation of IT skills assessments and training delivery.

OCIO also continues to play an active role in addressing IT workforce issues at the Federal level. I serve as co-chair of the Federal CIO Council IT Workforce Committee. This has resulted in a very active and visible role for USDA in the government's IT workforce improvement agenda. USDA's staff is particularly involved in two of the Committee's major agenda items, government-wide implementation of the Clinger-Cohen core competencies and implementation of recommendations cited in the CIO Council's report, Meeting the Federal IT Workforce Challenge (June, 1999).

USDA is also engaged in successful collaboration and partnership with the Office of Personnel Management—OPM, a necessary step for improving the Department's IT workforce. Two USDA agencies are participating in OPM's ongoing IT jobs pilot program, which uses a competency-based approach to human resources management. USDA has also supported the following OPM activities: revision of the classification and qualification standards for IT occupations, development of new IT parenthetical specialty titles, and contracting with the National Academy of Public Administration to conduct a Comparative Study of IT Pay Systems, which will make recommendations on how the federal government can better compete for IT talent. Additionally, USDA supported OPM in its approval of a government-wide special salary rate for certain IT employees that went into effect in January 2001.

CONCLUSION

Mr. Chairman, members of the Committee, the Department of Agriculture faces critical challenges as it transitions into this new e-Government era of providing services to our customers online. To meet these challenges, we are strengthening our Cyber-Security program to better protect our growing information assets; we are designing a telecommunications network capable of supporting the increased online demands we all expect; and we are coordinating a Department-wide e-Government effort to ensure customers and staff can easily access and use these new Internet-based services.

We are also focusing on the Service Center Modernization Initiative, which will bring USDA's county offices into the 21st century while reducing the burden on our customers. The Common Computing Environment is key to effectively modernizing the services we deliver to farmers, ranchers, and other customers of our county-based agencies. This effort continues to be among the Department's highest information technology priorities.

Finally, by strengthening the overall management of USDA's IT resources through our maturing capital planning investment and control process and our IT workforce initiatives, we are well on our way to realizing the benefits envisioned in the Clinger-Cohen Act.

We ask for your support for these initiatives, and look forward to working with you in the Congress to achieve these important objectives.

DEPARTMENTAL ADMINISTRATION

PREPARED STATEMENT OF PAUL W. FIDDICK, ASSISTANT SECRETARY FOR ADMINISTRATION

Mr. Chairman and members of the Subcommittee, I want to thank you for the opportunity to submit this statement supporting the President's budget proposal for fiscal year 2002 for USDA Departmental Administration. As you are aware, Departmental Administration takes in a wide range of activities and responsibilities. Our mission is to provide leadership in administrative areas and to provide those services that make the farm and other programs of the Department work better. Today, I want to report to you on some of our activities over the last year and indicate some of the administrative challenges facing the Department.

CIVIL RIGHTS

The Office of Civil Rights provides overall leadership and direction to USDA agencies to ensure enforcement and compliance with civil rights laws, rules and regulations in employment and program delivery; and to ensure that all USDA customers and employees are treated fairly with dignity and respect. Where necessary, the Office of Civil Rights (CR) mandates corrective action to make sure these standards are maintained.

Major activities include policy development, education and technical assistance, analysis and evaluation of USDA programs and activities to ensure equal access and participation, and resolution of employment and program discrimination complaints.

Civil Rights Impact Analyses have been conducted on 100 percent of new and revised significant USDA regulations to ensure that USDA program policies and procedures comply with applicable statutes and regulations.

As of March 2001, a total of 85,061 USDA employees had completed civil rights training since January 1, 2000. The training was made available in both Spanish and English, and in alternative formats such as large print and Braille. Fifty-four percent of the trainees completed the training online, the first effort of this magnitude in the Federal Government. Beginning in summer 2000, diversity training has been provided for managers and supervisors in the Washington, D.C. area. Training will be completed in May 2001. In addition, training is being provided as a result of recommendations from several USDA employee listening sessions in the summer of 2000 to train all USDA managers and supervisors on employment-related areas including conflict management and effective communication with employees.

With regard to complaints processing, of the 1,088 program complaints in the backlog as of January 1997, all but two cases have been resolved. During the period of October 1999 to January 31, 2001, the number of open program discrimination complaints was reduced from 1,248 to 508, a 60 percent reduction. During that same period, the average processing time for program cases was reduced by 12 days.

An analysis of employment complaint filing trends in the current USDA employment caseload shows that a substantial number of the complaints were filed by a few employees who file multiple complaints. Of the 1,870 employment cases being processed as of January 31, 2001, 749 were filed by just 235 employees. These numbers show that two-tenths of one percent of USDA's workforce accounts for 40 percent of all employment complaints in the system. USDA is using several methods to resolve and reduce the number of discrimination complaints: early intervention, mediation, and various alternative dispute resolution methods.

OUTREACH

During fiscal year 2001, Office of Outreach's priority is to identify a measure for minority participation in USDA programs and identify effective outreach measures. Using agency outreach plans and census data, barriers to participation of underserved groups and the means to overcome the barriers will be identified.

The Outreach for Socially Disadvantaged Farmers grants ("2501" Program) provides training and technical assistance to underserved groups of farmers and ranchers. The President's Budget requests that the program be maintained at the fiscal year 2001 appropriated level of $3 million.

SMALL AND DISADVANTAGED BUSINESS UTILIZATION

During fiscal year 2000, the Office of Small and Disadvantaged Business Utilization (OSDBU), cosponsored with USDA's Rural Business-Cooperative Service and the University of Nebraska, a symposium on "Innovative Strategies for Small and Limited Resource Agricultural Producers." This symposium brought together a number of the nation's leading figures in small farm innovations and as a result of the symposium, several of the participants initiated projects in future agriculture and food systems.

Also in fiscal year 2000, OSDBU led two projects addressing small business capabilities and barriers to dealing with e-Commerce and e-Government for Native American and Hispanic-owned businesses. Iowa State University is currently conducting a survey of Native American business in the twelve states in the North Central Plains; and Southwest Texas State University is surveying Hispanic businesses on a nationwide basis. The results of these studies will be used to help direct effective USDA-sponsored technical and other program assistance to these groups.

During fiscal year 2001, OSDBU has also been working collaboratively with the Department's Rural Development agencies, the Agricultural Marketing Service, the Farm Service Agency, and the Department of Defense (DOD) to develop a USDA Mentor-Protégé Program based on the DOD model. The proposed program would provide incentives for USDA prime contractors in food manufacturing to help small disadvantaged businesses and women-owned small businesses develop technical and business capabilities.

CONFLICT PREVENTION AND RESOLUTION

Since 1998, the Conflict Prevention and Resolution Center has led the Department's conflict prevention and resolution activities, focusing especially on the use of Alternative Dispute Resolution (ADR). This office has provided agencies with guidance and assistance that has led to the development of new ADR programs and expansion and improvement of others. In fiscal year 2000, an ADR policy was established that encouraged the use of ADR in workplace and program disputes. There was a 40 per cent increase in the use of ADR to resolve workplace disputes over fiscal year 1999. Also in fiscal year 2000, a video was created to help employees understand mediation, and the first-ever National Mediator Training Conference was held for employees who mediate workplace disputes. The Center developed a model conflict management-training package, and trained managers in Departmental Administration.

In fiscal year 2001, Departmental Administration will issue new policy for using ADR to resolve disputes in the EEO complaint process, and will expand its ADR policy for other types of disputes. The Center and the Office of Civil Rights are working collaboratively to ensure that ADR is more widely used to resolve EEO complaints. Also, a Guide explaining the many options available to employees to resolve workplace conflict has been published and is being distributed to USDA employees nationwide. The Center will be actively promoting greater use of ADR and other collaborative processes to resolve program disputes, and will continue to promote conflict management and ADR training for employees and managers. Finally, the Center is developing a tracking system to monitor conflict prevention and resolution activity.

CRISIS PLANNING AND MANAGEMENT

In October 1998, the Department was directed to develop contingency plans to ensure the continuity of operations during a full range of potential emergencies, including the potential for terrorist use of weapons of mass destruction. Departmental Administration was assigned the lead responsibility for the development of the USDA Headquarters Continuity of Operations (COOP) Plan. It covers the essential functions of USDA agencies located in 18 buildings in the National Capital Region, and includes provisions for: lines of succession; emergency delegations of authority, where permissible and in accordance with law; the safekeeping of vital resources, facilities, and records; emergency acquisition of resources to reestablish essential functions; and the identification of emergency relocation sites.

Three exercises were conducted in the late summer and early fall of 1999 to test and fine-tune the COOP Plan. Throughout fiscal year 2000 we continued these efforts by conducting a formal assessment with FEMA; adding a Family Assistance annex to assist USDA employees in better preparing for a COOP emergency; and updating COOP emergency relocation site planning. In fiscal year 2000, we also prepared for the Y2K Millennium rollover and assisted in the disaster response and recovery efforts resulting from Hurricane Floyd.

In December 2000, the Office of Crisis Planning and Management (OCPM) was created. In addition to its other functions, OCPM coordinates activities among USDA agencies and other Federal entities in response to potential domestic outbreak of foreign animal diseases.

FEDERAL EXCESS PERSONAL PROPERTY PROGRAM

Section 923 of the Federal Agriculture Improvement and Reform Act (FAIR) of 1996, authorized the Secretary of Agriculture to acquire and transfer excess Federal personal property to any of the 1994 Tribal Institutions, Hispanic-Serving Institutions, and the 1890 colleges and universities, including Tuskegee University. In fiscal year 2000, the Office of Procurement and Property Management (OPPM) transferred $3.2 million worth of personal property under the program, bringing the total to greater than $7.7 million since the program began in fiscal year 1999. This program provides much needed property and equipment to institutions that otherwise would not be able to acquire property due to limited funds and will improve the institutions' capability in the areas of research, educational, technical, and scientific activities.

In May 2000, OPPM also published a Federal Excess Personal Property handbook that was distributed to eligible Institutions to provide a clear understanding of how the program works, what it takes to get started, and key points of contact. This handbook is also available on the Internet. We continue our efforts to inform the eligible institutions on this program.

BIOBASED PRODUCTS AND BIOENERGY

The Department's support and promotion of biobased products and bioenergy in fiscal year 2000 resulted in an estimated 100,000 gallons of biodiesel fuel being used in USDA vehicles and equipment. The Agricultural Research Service Center in Beltsville, Maryland has taken the lead in biodiesel use. This winter, a biodiesel heating oil blend was used to heat twelve buildings at the site on a demonstration basis.

Based on USDA's experience, other Federal agencies such as the Department of Energy and the Department of Interior's National Park Service, have begun purchasing biodiesel for their fleets as part of the overall federal petroleum reduction strategy.

PROCUREMENT POLICY

During fiscal year 2001, USDA will be implementing FedBizOpps to electronically advertise our contracting opportunities and furnish solicitation copies via the Internet and will work to increase the use of Performance Based Service Contracting (PBSC). In fiscal year 2000, use of PBSC contracts increased slightly, but much more needs to be done. We are setting a very ambitious target for fiscal year 2002 and developing a strategic plan to deal with the barriers to increasing PBCS contract use.

HUMAN RESOURCES MANAGEMENT

The Office of Human Resources Management (OHRM) is providing leadership and oversight for the workforce planning process by providing assistance to attract, develop, and retain the quality and representative workforce USDA agencies and staff

offices need to accomplish their missions. Workforce planning is critical for the effective and efficient use of human resources to ensure optimal alignment with the budget and program planning processes.

Downsizing has resulted in serious skills mix issues, an aging workforce, and training deficiencies in the Federal workforce. As a result, the General Accounting Office has recently put human capital management on the list of Federal programs and operations that it considers to be "high risk." That designation, coupled with the very real challenges that USDA and other agencies face in rebuilding talented workforces after several years of downsizing, should result in much greater emphasis on workforce planning, recruitment and retention strategies, and succession planning.

As USDA agency workforces decline and the demand for workplace personnel flexibility increases, it will be imperative that we be able to track and manage human resources management information. The current personnel systems cannot meet the future needs of workforce management. To bring this capability up to the level needed to support critical program missions, we are working to replace the outdated administrative systems with systems based on newer technology.

OPM has changed its regulations governing performance appraisal in the Senior Executive Service. These changes include the incorporation of balanced measures in evaluating executive performance. USDA is required to evaluate executive performance starting in October 2001 using measures that balance organizational results with customer satisfaction, employee perspectives and other measures that are appropriate. OHRM has established a departmentwide task group that will develop a plan to implement the requirements and draft a new SES performance plan that incorporates balanced measures.

GOVERNMENT ETHICS PROGRAM

The Office of Ethics will enter its third year commencing in fiscal year 2002. It has quickly established itself to service directly all non-career appointees and all senior executive throughout the Department and to provide ethics policy and training for all USDA staff. In order the reach all USDA staff, stationed all over the world, the office employed an Internet Web Site as its principal tool for training and financial disclosure reporting. The success of this approach has attracted many other Federal Departments and Agencies also to employ the USDA ethics web site as their vehicle for training and reporting. This informal and gratis cross servicing has saved many thousands of dollars in what would be duplicative development work within the Executive Branch.

AGRICULTURE BUILDINGS AND FACILITIES

The Fiscal Year 2002 Budget requests $188 million for Agriculture Buildings and Facilities and Rental Payments. This amount includes an increase of $5 million for rental payments to the General Services Administration and continues to fund renovation of the South Building. The building is 10 years older than the Pentagon and is in dire need of repair and renovation to make it safe, efficient, and functional. The required renovation work includes fire protection systems, abatement of hazardous materials, and replacement of over-aged and inefficient utility systems. Phase 1 of the renovation is complete and Wing 3 has been reoccupied. We are expecting to begin Phase 2 construction later this year and complete the detailed design of Phase 3 so that construction contracts will be ready for procurement in fiscal year 2002.

HAZARDOUS MATERIALS MANAGEMENT

The Hazardous Materials Management Program is needed to meet USDA compliance responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, and related state and local laws and regulations and to meet the USDA goal of completion of all cleanup actions by the year 2045. Activities supported by this program contribute directly to USDA's strategic goal of maintaining and enhancing the Nation's natural resources and environment.

We must cleanup and restore lands and facilities currently and formerly under USDA jurisdiction, custody, and control and ensure responsible management in the use, storage, and disposal of hazardous materials and waste. USDA cleaned up 29 sites in fiscal year 2000, plans to cleanup 61 sites in fiscal year 2001, and since 1987, has cleaned up over 2,200 sites resulting from USDA activities or activities attributed to non-USDA parties. However, the cleanup of environmentally damaged sites is becoming more challenging as the smaller, less complex sites have already been dealt with.

DIRECT APPROPRIATION

For the direct Departmental Administration appropriation, the Budget requests $37 million. This amount is $1 million above the fiscal year 2001 appropriation level providing for the mandatory pay cost increases. The increase is needed in this relatively small organization to avoid the erosion of critical operational and support capabilities.

CONCLUSION

Mr. Chairman and members of the Subcommittee, this concludes my statement on the Departmental Administration budget for fiscal year 2002. I want to reiterate our appreciation for the strong support which this Subcommittee has given us.

RURAL HOUSING SERVICE

PREPARED STATEMENT OF JAMES C. ALSOP, ACTING ADMINISTRATOR

Mr. Chairman and members of the Committee, thank you for this opportunity to testify on the Rural Housing Service's fiscal year 2002 Budget Proposal.

The Department of Agriculture's Rural Housing Service (RHS) assists rural America in a variety of ways. Our loan and grant programs promote healthy rural communities by helping to provide decent and affordable housing as well as essential community services, such as fire protection, health care centers, and childcare centers. Through partnerships with the private, public, and nonprofit sectors, RHS provides financial and technical assistance to low-income families and rural communities. RHS helps those who do not have effective access to credit because of the isolated nature or small scale of rural markets. We also provide credit to low-income families and communities that otherwise could not afford mortgage or other debt service payments.

With the $5.8 billion program funding for fiscal year 2002, RHS will provide assistance to more than 67,000 households for single-family housing homeownership or repairs, construct more than 5,200 new rental-housing units, and provide rental assistance to more than 42,000 very low-income rural renters. Additionally, the fiscal year 2002 budget will provide support for more than 170 new or improved health care facilities, more than 150 new or improved fire and rescue facilities, and more than 80 new or improved childcare facilities. It also will create or preserve more than 40,000 jobs in rural America and serve more than 13 million rural Americans.

In this era of unprecedented economic prosperity, RHS programs ensure that some of rural America's most vulnerable members, including low-income elderly, children, farm workers, and Native Americans, share in our Nation's good fortune. Let me show you some examples of how we have assisted rural America.

RHS HOMEOWNERSHIP PROGRAMS REACH THE UNDERSERVED

In fiscal year 2000, RHS celebrated the 50th anniversary of the Section 502 direct loan homeownership program. During the past 50 years, the program has made tremendous strides in improving the overall quality and affordability of the Nation's rural housing stock. Our customers are happy with their homes. According to a recent Economic Research Service (ERS) report titled Meeting the Housing Needs of Rural Residents, 90 percent of recent Section 502 direct loan borrowers think that their current home is better than their last one. These same satisfied customers are people whom the private market has difficulty serving. Ninety percent say that without assistance from us it would have taken them more than two years to purchase a comparable home, and 44 percent believe they could never have purchased a home without the Section 502 direct loan program. Twenty-nine percent of RHS borrowers are members of minority groups as compared to 15 percent of all recent low-income homeowners, and 32 percent of our customers are female single parents, as compared to 12 percent of all recent low-income homeowners. In addition, 15 percent of Section 502 households have at least one member with a disability. Almost three-quarters of the borrowers surveyed were first-time homeowners. The typical Section 502 financed house is a six-year old, detached single-family dwelling with three bedrooms and one bathroom. The median purchase price was about $64,900.

In Cantril, Iowa, a single mother with four children was sent to RHS by the local bank to see about getting a repair loan for her dilapidated home, which had bad wiring and an unsafe furnace. An inspection of the home showed it to be uneconomical to repair. However, the local Rural Development office found the applicant qualified for a Section 502 direct loan to buy or build a house. Because the old house is located on a double lot, there is space to build the new house alongside the old

one. The family will move into the new home and the old one will be demolished. Not only will the family have greatly improved housing conditions, but the community will benefit by the replacement of a deteriorated house with a modern, attractive home.

In fiscal year 2002, the Budget proposes to direct just over $1 billion through the Section 502 direct loan program to low- and very-low income residents who have no other hope of achieving homeownership. These funds will enable more than 15,500 low-income rural Americans to become homeowners. An additional $3.1 billion in the Guaranteed Section 502 program will help about 40,000 low- and moderate-income rural households become homeowners. In fact, 30 percent of the loans made in the Guaranteed Loan program were made to low-income rural residents. That helped stretch the Agency's 502 Direct loan funds and reinforced the critical role Rural Development plays in housing rural residents. Based on the estimates used by the National Association of Home Builders, the fiscal year 2002 budget will help create about 36,000 jobs through the construction of new homes.

The proposed fiscal year 2002 Self-Help Housing Technical Assistance Grants program has a funding level of nearly $34 million. By allowing families to earn "sweat equity" by helping to build their own homes, the Self-Help program makes housing affordable for many hard-working, very low-income families who otherwise would never be able to own their own homes. About half of the program's participants are members of minority groups, and a significant portion is farmworkers. The program requirements are tough: participants must contribute 65 percent of the labor towards construction of their homes. Because owning a home is so important to them, these families are willing to work at their regular jobs and then put in as much as 35 hours a week building their houses. We anticipate that the fiscal year 2002 budget will allow RHS to gain approximately 20 new technical assistance grants in those areas that currently do not have Self-Help programs. This, in turn, will enable more than 1,500 families to build their own homes.

The Pine Ridge Indian Reservation in South Dakota, the second largest reservation in the Nation, desperately needs inexpensive housing. RHS has funded a number of different housing developments on the reservation. One of these is a unique self-help housing program. Self-help housing is natural for Native Americans who are accustomed to helping family and neighbors build their homes. The Oglala Sioux Tribe Partnership for Housing worked with RHS to tailor the program to the needs of Native Americans. Floor plans are designed with input from the program participants. Homebuyer education is offered to participants to assist them in buying and maintaining their homes. Instead of being located in one development, the homes are built by the self-help participants in a construction yard and then moved to individual sites on land already owned by the various families throughout the reservation. This allows the participants to live near their extended families. In addition to funding the self-help program, RHS provides mortgage assistance to many of the homebuilders.

RHS PARTNERS WITH PRIVATE AND NONPROFIT ORGANIZATIONS TO INCREASE HOMEOWNERSHIP OPPORTUNITIES

Homeownership can have a tremendous impact on families' lives and on the strength of rural communities. However, RHS cannot address this issue alone. We must work with partners. Leveraging has become an integral part of how we do business. RHS is collaborating with a number of private and public partners to meet the housing needs of low-income families and individuals.

RHS originally established the Rural Home Loan Partnership (RHLP) as a pilot project initiated with the Federal Home Loan Bank System (FHLB) and the Rural Local Initiatives Support Corporation. Now, RHS has expanded the RHLP to include other partners. In the RHLP, a local nonprofit or community development corporation partners with a local lender and RHS provide homeownership education and single-family mortgages to very-low- and low-income rural residents. In fiscal year 2000, the RHLP produced 1,334 new homeowners using $76 million in RHS loans and grants and $27.6 million from other lenders. For every dollar RHS invests in affordable housing, an RHLP partner contributes another 36 cents. The first year's success began with 10 local partnerships; the pilot has expanded each year to its current level of 263 partners.

In Batavia, New York, the RHLP Program helped a family of three teenagers and their mother buy a home. RHS partnered with Rural Opportunities, Inc., (ROI) and the Bank of Castile to create the loan package for this family. The borrower attended the homebuyer education class presented by ROI, which helped her understand the loan application process as well as budgeting and figuring what loan pay-

ments she could afford. The end result was an affordable home for the family. In fiscal year 2000, RHS partnered with ROI on 22 RHLP loans.

RHS RENTAL PROGRAMS SERVE THE MOST VULNERABLE RURAL AMERICANS

Although RHS housing programs have been successful, many rural residents still live in substandard housing. According to the Housing Assistance Council's recent report titled The State of Rural Rental Housing, more than 900,000 rural rental households, 10.4 percent, live in either severely or moderately inadequate housing. More than one million rural renter households are "worst case needs" households, which the Department of Housing and Urban Development defines as having an income below 50 percent of the area median household income, being extremely cost-burdened or inadequately housed, and receiving no Federal housing assistance. Of those rural renters with worst case needs, 92 percent pay more than one-half of their income, about $6,000, for housing.

Together, the RHS Section 515 Rural Rental Housing program and the Section 521 Rental Assistance (RA) program provide decent, safe, and affordable housing to those families who need it most. The Section 515 program provides loans at an interest rate of 1 percent to build affordable housing, while the Rental Assistance program ensures that tenants pay no more than 30 percent of their income for rent.

The average annual income of our Section 515 tenants is just under $7,700. Forty-two percent of our 432,000 tenant householders are elderly, 14 percent have a handicap or disability, 25 percent are members of minority groups, and 72 percent are women. The fiscal year 2002 budget of $114.3 million for the Section 515 housing will help build more than 1,700 much-needed new Section 515 units, repair or rehabilitate another 4,000 units, and keep another 1,000 units in the program.

The $688 million fiscal year 2002 funding for the Section 521 program is essential to ensuring the integrity and financial stability of our Section 515 and Section 514/516 loan and grant programs. Well over 93 percent of our RA budget will be used to ensure that more than 42,000 RA contracts are renewed and that the people living in these units can remain in affordable housing. The remainder of the RA funding will be used for newly constructed units and to keep rent affordable when repair and rehabilitation are needed for existing units.

In Warrenton, Missouri, low-income senior citizens who are no longer able to maintain their own homes have the option of living at Meadow Wood Apartments. This apartment complex for seniors and handicapped individuals was financed through an RHS Section 515 loan. RHS also provides qualifying tenants with rental assistance, so that they pay no more than 30 percent of their income for rent. There are 16 one-bedroom apartments in four brick buildings at Meadow Wood. They are all on a single floor, so residents have no stairs to climb. A communal laundry facility is at the center of the complex. A month after the complex opened, all but three apartments were occupied.

RHS has been working diligently to improve the integrity of its Rural Rental Housing program. RHS is working with the Office of Inspector General (OIG) to identify and correct any fraud or abuse. We have also implemented a new internal tracking system to better monitor and manage our $11.9 billion rental portfolio. We are also working to improve coordination with other agencies and departments that are involved in the fraud, waste, and abuse detection and enforcement process.

RHS PROVIDES ESSENTIAL FACILITIES TO DISTRESSED RURAL COMMUNITIES

Along with decent and affordable housing, many communities also lack essential community facilities such as childcare centers, fire stations, and health care centers. This shortage not only impacts the quality of life for community residents but also makes it more difficult for communities to attract and retain businesses. Fortunately, our Community Facilities (CF) direct and guaranteed loan and grant programs provide funding for these essential facilities.

In Mississippi's Delta region, the Aaron E. Henry Community Health Services is providing an unusual service to residents of Coahoma, Panola, Quitman, and Tallahatchie counties. With funding provided by RHS Community Facilities, the center purchased 15-passenger vans and bus shelters to provide low-income residents with transportation to appointments at health centers or to get prescriptions filled at local shopping centers. RHS also provided the funding for the new Aaron E. Henry Community Health Services Center in Clarksdale.

The $478 million for Community Facilities programs for fiscal year 2002 will allow us to continue our commitment to childcare, which is especially important in rural areas. A staggering 24 percent of rural America's children live in poverty. Research by USDA's Economic Research Service suggests that young rural children are more likely to live in poverty than older children because rural areas lack the

childcare facilities that enable parents to go to work. Without adequate childcare facilities, many rural parents face a tough choice: go to work to increase their family's income but worry about whether their children are safe and well cared for, or live in poverty in order to stay home to take good care of their kids. The high-quality childcare centers financed by the Community Facilities program allow parents to go to work with peace of mind. Not only that, they help address the larger problem of rural child poverty.

In Dallas, Pennsylvania, RHS helped fund the Little Meadows Learning Center, owned by Ecumenical Enterprises, Inc. The center was created to complement a geriatric campus, consisting of a nursing center, an assisted living center, and two apartment complexes, already operated by Ecumenical Enterprises. The childcare center provides work site childcare for employees of the geriatric campus as well as quality childcare for the local community. Daycare is provided for children from infants through pre-school. An after-school program is available for older children. The Little Meadows Learning Center offers childhood educational programs and intergenerational programs with residents of the geriatric campus. The need for childcare in the community was clearly demonstrated when the center, with 115 spaces for children, reached 90 percent occupancy within a few months of opening.

Fiscal Year 2002 Community Facilities budget includes nearly $6 million to continue the Rural Community Development Initiative that Congress funded for the first time in fiscal year 2000. This initiative will help build the capacity of rural organizations to undertake essential housing and economic development projects in their communities. There is a great need in rural America for technical assistance to foster leadership development, organizational capacity, program initiatives, and the adoption of new technology. This is especially true in remote and isolated rural areas.

I have discussed the funding for the major RHS programs. Now, let me take a moment to show you how the budget will help some of our most vulnerable rural citizens: the elderly, farm workers, and Native Americans.

RHS PROVIDES RURAL AMERICA'S ELDERLY WITH SAFE, AFFORDABLE HOUSING AND ESSENTIAL COMMUNITY FACILITIES

Elderly rural Americans face critical housing and long-term care challenges. Although only 28 percent of all elderly households reside in rural areas, 39 percent of elderly households living in moderately or severely inadequate housing reside in rural areas. Many live in housing that they cannot reasonably afford. Over 50 percent of the elderly renters living in rural areas spend at least 30 percent of their income on housing.

RHS programs ensure that these financially overburdened rural elderly can live in good and affordable housing. Currently, our Section 515 rural rental-housing program is providing maintenance-free, accessible homes to more than 200,000 elderly households who can no longer handle the burdens of homeownership. For elderly rural people who want to remain in the homes they own, we provide the Section 504 loan and grant programs. These programs make substandard homes safe and decent by financing such things as indoor plumbing, electric heating and cooling systems, safe wiring, roof and floor repair, and the installation of features to accommodate disabilities. In fiscal year 2000, $58.9 million in loan and grant money was used to repair more than 11,000 homes under the Section 504 program. The fiscal year 2002 budget includes nearly $30 million for the Section 504 grant program, which serves very low-income seniors, and $32 million for the Section 504 loan program in which about half of the beneficiaries are elderly. With this money, RHS can help make about 12,000 substandard homes safe and decent.

In McHenry, Kentucky, a rural coal mining area, RHS helped a 91-year-old widow make her home liveable. With only Social Security and Black Lung benefits, she could not afford the necessary repairs to her home. The leaking roof had severely damaged the ceilings, walls and eaves of the house. In her bedroom, the ceiling and walls had separated far enough that daylight showed through. In the winter, the bedroom was unusable because of the cold drafts and had to be sealed off from the rest of the house. There were no storm windows on the house. The RHS Section 504 loan and grant programs provided funds to repair the house, making it warm and secure during cold, rainy weather.

The RHS Community Facilities program finances a range of service centers for elderly people, including nursing homes, boarding care facilities, assisted care, adult day care, and intergenerational care centers that serve both elderly people and children at the same time. Since its inception in 1974, the Community Facilities program has invested $688 million in centers that directly benefit seniors and millions more in health care services that serve both seniors and the general population.

RHS PROGRAMS SERVE AMERICA'S FARM WORKERS

Although the housing needs of the elderly are a severe problem, their situation is not the worst in rural America. Farm workers and Native Americans are the two most poorly housed groups in America. Farm workers enable America to maintain its agriculture production levels and compete in world markets, yet they are the lowest-paid group of workers in the nation. While their labor ensures food security through the successful production and distribution of our nation's agricultural crops, farm workers live in substandard housing, sometimes without basic sanitary facilities, safe heating and cooking equipment, and a supply of clean water.

RHS provides housing to farm workers primarily through two programs: the Mutual Self-Help program, which I have already described, and the Section 514/516 Farm Labor Housing program, which is the only national source of farm labor housing construction funds. Participants in either of these programs must be permanent residents or U.S. citizens. Tenants in our farm labor housing must earn a substantial portion of their income through farm work. Eighty-nine percent of tenants in RHS-financed farm labor housing are minorities, primarily Latino and African-American.

Fiscal Year 2000, RHS used $49.5 million to build 818 farm labor-housing units. The fiscal year 2002 budget of $43.4 million for the Farm Labor Housing program will enable us to finance construction of approximately 700 new units as well as address our anticipated need to rehabilitate and repair about 500 existing units. It will also allow us to provide childcare facilities as a part of some complexes. This funding will be highly leveraged because RHS partners with other public and private funding organizations in the vast majority of the projects it finances.

Housing costs in California are high and there is a severe shortage of affordable housing. Thousands of low-income year-round farm workers live in substandard mobile home parks, campers and crude shelters. In Riverside County, lucky farm workers live in Desert Garden Apartments in Indio. This complex, built by the Coachella Valley Housing Coalition, and funded primarily through the RHS Farm Labor Housing Program, offers many special features, including energy-efficient housing, a childcare center, an after-school program with computers, a community garden, and a resident community council.

A grant from the U.S. Department of Housing and Urban Development provides funding to counsel residents on homeownership, financial planning, and credit management. Other classes for adults include creative writing (through interactive software), English as a Second Language, and employment and leadership training programs.

In addition to providing farm workers with housing, RHS also provides them with essential community facilities, such as childcare and health care centers. The CF program has also been successful in meeting the needs of migrant farm workers, who are difficult to serve because of the transient nature of their work. In conjunction with the Department of Health and Human Services, we have funded a number of migrant health care clinics and migrant Head Start centers.

NATIVE AMERICANS BENEFIT FROM RHS ASSISTANCE

In rural areas, Native Americans suffer from some of the worst poverty levels, housing, and access to basic community and health services in the country. RHS continues its extensive outreach to Native Americans by working to overcome barriers to lending on trust land and by providing grant funds whenever possible.

The Section 504 housing repair loan and grant programs are often the first RHS programs to be used on a reservation. Section 504 loans are especially easy to use because if the loan is less than $2,500, no real estate security is needed. Thus, the problem of lending on trust land is avoided.

Last year, Rural Development in Wisconsin approved their first Guaranteed Rural Housing loan to Native Americans on tribal trust land. This loan, under the Rural Housing Native American Pilot initiative, enabled the parents and two teenage children to have a three-bedroom manufactured home built in Keshena, on the Menominee Indian Reservation. The tribe helped the family by paying for the well, septic system and water system hookups. A successful collaboration between the Rural Housing Service, the Indian tribe, the local bank, and Bureau of Indian Affairs, and the manufactured home dealer/contractor made it possible for this family to have a new home.

RHS has worked hard to increase its investments in Indian Country. We have financed numerous Section 515 multi-family housing complexes across the nation. We typically provide about 10 percent of our Housing Preservation Grant funds to organizations that serve Native Americans. Through small Section 525 Technical Assistance Grants to non-profit organizations, we fund credit counseling and homebuyer

education to Native Americans to help them qualify for RHS single family housing loans and become successful homeowners.

Assistance for Native Americans has been a Community Facilities priority for a number of years. Native American communities, especially those on reservations, have many needs beyond housing—needs such as medical centers, libraries, community centers, childcare centers, Head Start facilities, and fire stations and trucks. In addition to these needs, the CF program funds a variety of buildings for tribal colleges, including housing for teachers in isolated areas.

In Montana, RHS works with tribes on the reservations in various ways. On the Fort Belknap Indian Reservation, housing is in short supply. RHS is funding two multi-family housing projects for the reservation. The homes are doublewide mobile homes, which can accommodate large families. Because of their low incomes, occupants will receive rental assistance from RHS. In Browning Montana, on the Blackfeet Reservation, the Community Facilities program funded a new multi-use student center, which includes a bookstore, classrooms, offices and library for Blackfeet Community College. CF funds are also being used to equip an early-childhood center on the reservation, which offers prenatal care and daycare for up to 150 children.

RHS MOVES EMPLOYEES FROM WELFARE TO WORK AT THE CENTRALIZED SERVICING CENTER

RHS's commitment to helping people become self-sufficient extends to its employees. Since 1997, the USDA Centralized Servicing Center (CSC) in St. Louis, Missouri, has worked with the St. Louis Transitional Hope House and the American Red Cross to employ former welfare recipients. The CSC has selected a total of 24 employees referred through the partnership with Hope House. Starting as worker trainees, 14 of these employees have since moved into permanent loan processor positions. In May 2000, the CSC received a USDA Secretary's Honor Award for training and ongoing support of its Welfare-to-Work employees.

Welfare-to-Work employees are initially hired to work as Customer Service Representatives. This helps the trainees because (1) they receive in-depth training on all areas of the CSC; (2) they can take advantage of flexible scheduling; and (3) there is a special supervisory team to give them individual support and training. Once they make the transition to a working environment, they may apply for other positions. Long-term employees assist the new employees in meeting the obligations of the jobs.

Success gives our employees the courage to continue their growth. One employee, who started in the Welfare-to-Work program, now is enrolled in college pursuing a degree in accounting. She manages to maintain her family, work, and school obligations and continues to work toward improving her future.

I hope I have illustrated for you the many ways that RHS programs improve life in rural areas. We have great opportunities to assist rural people and their communities in becoming self-sufficient. I have mentioned only a few examples of how RHS makes a difference in the lives of so many rural Americans.

Through our partnerships and leveraging efforts, we can expand the reach of our resources even further. The funds in the fiscal year 2002 budget will enable us to continue reaching underserved people in rural areas where our help is needed the most.

Mr. Chairman and members of the Committee, with your continued support, RHS looks forward to improving the quality of life in rural America by helping to build competitive, active rural communities through our Community Facilities and housing programs.

FARM SERVICE AGENCY

PREPARED STATEMENT OF JAMES R. LITTLE, ACTING ADMINISTRATOR

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to present the fiscal year 2002 budget for the Farm Service Agency (FSA). Our proposals are based on existing legislative authorities and assume the expiration of current ad hoc disaster and emergency provisions. I would like to highlight the proposals for FSA's various activities: the commodity and conservation programs funded by the Commodity Credit Corporation (CCC); the farm loan programs of the Agricultural Credit Insurance Fund; and our other appropriated programs. I will also summarize our request for administrative support.

COMMODITY CREDIT CORPORATION

Domestic farm commodity price and income support programs are administered by the Farm Service Agency and financed through the CCC, a government corporation for which FSA provides operating personnel. Commodity support operations, handled primarily through loans, payment programs, and some limited purchase programs, currently include those for corn, barley, oats, grain sorghum, wheat and wheat products, soybeans, minor oilseed crops, cotton (upland and extra long staple), rice, tobacco, milk and milk products, peanuts, and sugar.

The CCC is also the source of funding for the Conservation Reserve Program (CRP) administered by FSA, as well as many of the conservation programs administered by the Natural Resources Conservation Service. In addition, CCC funds many of the export programs administered by the Foreign Agricultural Service. When called upon, CCC also finances various disaster assistance programs authorized by Congress. The Corporation is authorized to borrow funds from the Treasury to finance CCC programs on an on-going basis, and repays these borrowings, with interest, from program receipts and from appropriations provided by Congress for reimbursement of net realized losses.

Program Outlays

The current 2002 budget estimates largely reflect supply and demand assumptions for the 2001 crop, based on October 2000 data. CCC net expenditures for fiscal year 2002 are estimated at $13.1 billion, down nearly $7.5 billion from a level of $20.5 billion in fiscal year 2001, and $19.2 billion below the record high of $32.3 billion in fiscal year 2000.

The net decrease in projected fiscal year 2002 CCC expenditures primarily reflects the expiration of $4.5 billion in 2001 emergency and market loss assistance authorized by the Agricultural Risk Protection Act and the 2001 Agriculture Appropriations Act. Other components include decreases of about $1.4 billion in loan deficiency payments, nearly $300 million in Section 416 ocean transportation, and about $120 million in production flexibility contract payments. Also, no CCC expenditures will take place in fiscal year 2002 for computer equipment or related services due to the limits placed on such expenditures in the 1996 Farm Bill and subsequent legislation.

The CCC budget includes two General Provision proposals for this appropriations bill: to cap the fiscal year 2002 Environmental Quality Incentives Program at $174 million and to prohibit implementation of the Conservation Farm Option Program in fiscal year 2002. These actions would reduce fiscal year 2002 CCC expenditures by $5.5 million and $2.1 million, respectively.

Reimbursement for Realized Losses

The fiscal year 2001 appropriations act authorizes CCC to replenish its borrowing authority as needed from Treasury, up to the amount of realized losses recorded in CCC's financial statements at the end of the preceding fiscal year. Under this authority, we are projecting that in fiscal year 2001 CCC will draw approximately $24.0 billion for fiscal year 2000 losses. In addition, nearly $1.3 billion in fiscal year 2001 net realized losses has already been reimbursed to CCC during the first quarter of this fiscal year as authorized by the Agricultural Risk Protection Act of 2000 to cover emergency provisions of that act. Without this reimbursement, CCC's ability to continue to assist farmers would have been jeopardized.

The fiscal year 2002 budget proposes to revise the provision of the current appropriations that confines reimbursement for realized losses to those recorded at the end of the preceding year. Our request would provide a current, indefinite appropriation to reimburse the Corporation for all actual net realized losses, including those recorded in the current fiscal year. This would provide CCC added flexibility to avert a possible funding shortfall during periods of imminent borrowing authority depletion, without emergency action on the part of Congress.

Conservation Reserve Program

The CRP, administered by FSA, is USDA's largest conservation/environmental program. It is designed to cost-effectively assist farm owners and operators in conserving and improving soil, water, air, and wildlife resources by converting highly erodible and other environmentally sensitive acreage from the production of agricultural commodities to a long-term resource-conserving cover. CRP participants enter into contracts for periods of 10 to 15 years in exchange for annual rental payments, along with cost-share and technical assistance for installing approved conservation practices. The authorizing legislation currently allows enrollment of up to 36.4 million acres.

In fiscal year 2000, a general CRP signup (signup 20) was held from January 18, 2000, through February 11, 2000. Of the 3.5 million acres offered, 2.3 million were approved for enrollment, with contracts beginning in fiscal year 2001 and rental payments beginning in fiscal year 2002. The fiscal year 2002 budget assumes that no general signup will be held in fiscal year 2001; however, a 1-year extension opportunity was announced in January 2001 for contracts that are scheduled to expire in September 2001 with an original duration of less than 15 years. Additional acres will also be accepted into the CRP during fiscal year 2001 through continuous signup, the Conservation Reserve Enhancement Program, and the Farmable Wetlands Pilot Program.

In fiscal year 2001, CCC will pay approximately $1.54 billion for rental costs and about $127 million for sharing the cost of establishing permanent cover on the enrolled acreage. The bulk of the rental payments, covering acres enrolled in regular signups, were issued early in the fiscal year. For fiscal year 2002, the budget projects a general signup of 1.36 million acres and CCC program costs of approximately $1.79 billion, consisting of $1.68 billion for rental payments on previously enrolled and extended acres, and $111 million for cost-share assistance.

FARM LOAN PROGRAMS

The loan programs funded through the Agricultural Credit Insurance Fund provide a variety of loans and loan guarantees to farm families who would otherwise be unable to obtain credit. Access to adequate farm credit is often the only way for some farmers to continue their operations.

As a result of the weakness in much of today's farm economy, the demand for FSA loans and loan guarantees remains high in fiscal year 2001. Activity is expected to be particularly heavy in direct farm ownership loans and guaranteed farm operating loans with interest assistance. The fiscal year 2002 budget, anticipating a continued high demand, proposes a total program level of about $3.86 billion in loans and guarantees, an increase of $764 million over fiscal year 2001. The largest segment of FSA lending is carried out in cooperation with private lenders through the guarantee programs. This budget continues strong support for guaranteed loans, with a proposed program level of $3 billion.

For direct farm ownership loans we are requesting a loan level of $128 million, an increase of $278 thousand over the fiscal year 2001 appropriated level. The proposed program level would enable FSA to extend credit to about 1,100 small and beginning farmers to purchase or maintain a family farm. As required by law, the agency has established annual county-by-county participation targets for members of socially disadvantaged groups, based on demographic data. Also, 70 percent of direct farm ownership loans are reserved for beginning farmers and about 35 percent are made at a reduced interest rate to limited resource borrowers, who may also be beginning farmers. For direct farm operating loans we are requesting a program level of $600 million, $76 million above the fiscal year 2001 level, to provide nearly 12,250 loans to family farmers.

For guaranteed farm ownership loans in fiscal year 2002, we are requesting a loan level of $1 billion, an increase of $132 million over 2001. This program level will give approximately 4,000 farmers the opportunity to either acquire their own farm or to save an existing one. One critical use of guaranteed farm ownership loans is to allow real estate equity to be used to restructure short-term debt into more favorable long-term rates. For guaranteed farm operating loans we propose an fiscal year 2002 program level of $2 billion, compared to $1.4 billion in 2001. This level will enable over 12,500 producers to finance their farming operations in the face of continued poor economic conditions. This program enables commercial lenders to continue to extend credit to farm customers who, under current adverse circumstances, have become an increased credit risk. Without this backing, those farmers would be forced to seek direct loans from FSA.

The Budget also proposes $25 million in emergency disaster loans in fiscal year 2002, sufficient to provide close to 400 low-interest loans to producers whose farming operations have been damaged by natural disasters. In addition, our budget proposes $2 million for Indian tribe land acquisition loans and $100 million for boll weevil eradication loans.

OTHER APPROPRIATED PROGRAMS

State Mediation Grants State Mediation Grants assist States in developing programs to deal with disputes involving a variety of agricultural issues—distressed farm loans, wetland determinations, conservation compliance, pesticides, and others. Operated primarily by State universities or departments of agriculture, the program provides neutral mediators to assist producers, primarily small farmers, in resolving

disputes before they culminate in litigation or bankruptcy. The program was reauthorized through fiscal year 2005 by the Grain Standards and Warehouse Improvement Act of 2000. The Budget requests $2.993 million to maintain the program at the current level, with 27 certified States receiving grants.

Emergency Conservation Program

To restore farmland damaged by natural disasters and return it to productive agricultural use, the disaster and emergency title of the fiscal year 2001 appropriations act provided $79.8 million for the Emergency Conservation Program (ECP). So far this fiscal year, just under $40 million has been allocated to share the cost of repairing damage caused by drought, floods, tornadoes, and other disasters across the country. Claims are pending for damage from ice storms in a number of States, and additional claims are anticipated as a result of the recent flooding of the Mississippi River, as well as any other disasters that may occur. Most of the available funding is likely to be allocated by the end of the fiscal year.

The President's Budget requests no ECP funding for fiscal year 2002. However, the $5.6 billion governmentwide National Emergency Reserve proposed in the President's Budget could provide for emergency conservation needs.

Dairy Indemnity Program

The Dairy Indemnity Program compensates dairy farmers and manufacturers who, through no fault of their own, suffer income losses on milk or milk products removed from commercial markets due to residues of certain chemicals or other toxic substances. Payees are required to reimburse the Government if they recover their losses through other sources such as litigation. The fiscal year 2002 appropriation request of $100 thousand, together with carryover unobligated funds expected to be available at the end of fiscal year 2001, would cover a higher than normal but not catastrophic level of claims.

ADMINISTRATIVE SUPPORT

The costs of administering all FSA programs are funded by a consolidated Salaries and Expenses (S&E) account. The account is comprised of direct appropriation, transfers from program loan accounts under credit reform procedures, user fees, and advances and reimbursements from various sources.

The fiscal year 2002 Budget proposes funding of $1.213 billion from appropriated sources, including credit reform transfers, for a net increase of about $71 million over the fiscal year 2001 level. This net increase has two components: ADP activities and non-Federal county offices.

Our S&E request includes just over $40 million for computer-related costs that formerly would have been funded by CCC. The 1996 Farm Bill imposed a cap of $275 million for CCC-funded automated data processing (ADP) obligations for fiscal year 1997 through 2002. Subsequently, two separate legislative actions reduced the cap by a total of $87 million to achieve budgetary offset savings in unrelated programs. The last of the funding under the resulting $188 million cap was exhausted early in fiscal year 2001, making it necessary for FSA to draw upon S&E funding to support basic ADP maintenance and operating needs. The $40 million requested for ADP under S&E for fiscal year 2002 would provide:

—$26 million for basic operating costs, including hardware and software upgrades, licenses and renewals, contractor support for hardware and software, and maintenance of mission-critical systems essential for program delivery.

—$7.8 million to begin the process of converting and migrating some of FSA's 50 legacy automated systems to the Common Computing Environment (CCE) to support the Service Center modernization effort. Transition to the CCE is necessary not only to improve customer service and administrative efficiencies, but also to meet the requirements of the Freedom to E-File Act and similar mandates.

—$3.5 million for FSA's share of LAN/WAN/Voice installation and operation under the Department's Service Center modernization initiative, to provide a solid telecommunications infrastructure for the CCE, electronic access, and other ADP-related improvements.

—$2.7 million for FSA's share of the Geographical Information System, which is at a critical point of implementation in providing digital geo-spatial data and the tools to make practical use of the information collected.

The remaining net increase of $31 million for S&E reflects Federal office and non-Federal county office costs of pay raises, promotions, and within-grade increases, as well as other costs of maintaining permanent county office staffing at the 2001 level. Temporary non-Federal county office staffing needs are expected to decline modestly, by 461 staff years, as the expiration of ad hoc disaster and emergency legisla-

tion reduces the workload associated with crop and market loss assistance in fiscal year 2002. Since we cannot predict the programmatic impact of a new farm bill, or whether new emergency disaster assistance will be enacted, our estimates assume a continuation of ongoing workload activity. When a new farm bill is in place, or other legislation affecting workload is enacted, fiscal year 2002 staffing requirements may need to be reexamined.

Mr. Chairman, this concludes my statement. I will be happy to answer your questions and those of the other Subcommittee Members.

RELATED AGENCIES

FARM CREDIT ADMINISTRATION

PREPARED STATEMENT OF HONORABLE MICHAEL M. REYNA, CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Mr. Chairman, Members of the Subcommittee, I am Michael Reyna, Chairman and Chief Executive Officer of the Farm Credit Administration (FCA or Agency). This is my second report to you as the Chairman of the FCA Board. As you know, the FCA Board is a three-member board. Ann Jorgensen, who also serves as the Chair of the Farm Credit System Insurance Corporation (FCSIC), joins me on the Board. The third position on the FCA Board is currently vacant.

I will highlight the FCA's accomplishments during the past year, report to you briefly on the condition of the Farm Credit System (FCS or System), and present our fiscal year 2002 budget request.

MISSION OF THE FARM CREDIT ADMINISTRATION

The mission of the FCA is to promote a safe and sound, competitive FCS so agriculture and rural America will continue to have a permanent, dependable, and affordable source of credit in both good and bad times. We are not involved in the daily management of System institutions. Instead, our responsibility is to ensure that the System complies with applicable statutes and regulations, and operates in accordance with safe and sound banking practices. We believe that the FCS will continue to play an important role in financing agriculture in the 21st century. We strive to maintain a regulatory environment that enables System institutions to remain financially strong and competitive so they can meet the changing demands of rural America for credit and other services. In doing so, our primary focus is to ensure the long-term safety and soundness of the FCS and develop rules and polices that respect market forces.

FISCAL YEAR 2002 BUDGET REQUEST

We are proud of our accomplishments as the safety and soundness regulator of the FCS and of our ability to contain costs while fulfilling our mission. I assure you that we will continue our commitment to effectiveness and cost-efficiency. We will regularly review how additional progress can be made in meeting these objectives. I am personally committed to a program of continuous improvement.

Before I present the budget request, I respectfully bring to the Committee's attention that the FCA's administrative expenses are paid for by the institutions that we examine. The FCA does not receive a Federal appropriation, but instead is funded through annual assessments of FCS institutions.

For fiscal year 2002, I propose a budget of $38,736,000. While this is an increase of $383,000, or 1 percent, above the $38,353,000 for fiscal year 2001, I can assure you that we are cognizant of our responsibility to be good stewards of the System's resources. Most of this increase is due to adjustments in compensation and benefits for our workforce. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) requires the FCA to keep the salaries of its employees comparable to those of other Federal financial institution regulators.

Our fiscal year 2002 budget request supports a staffing level of 293.6 full-time equivalents (FTEs). By comparison, our fiscal year 2001 budget supported a staffing level of 301.6 FTEs. Although our staffing level has declined by 8 FTEs from the previous fiscal year, I believe we can continue to maintain the right mix of positions and skills necessary to implement our Strategic Plan and accomplish our mission. The proposed budget that we formally submitted to the Committee provides details on the various expense categories and other highlights.

FISCAL YEAR 2000 ACCOMPLISHMENTS

I am proud of our many accomplishments during the past year. In fiscal year 2000, we continued our efforts to achieve the goals of our Strategic Plan through (1) effective risk identification and corrective action, and (2) sensible regulation and public policy.

We have worked hard to maintain the System's safety and soundness at a time when the agricultural economy is experiencing stress. At the same time, we are continually exploring options to reduce regulatory burden on the FCS and ensure it fulfills its public policy mission to provide constructive, competitive, and dependable credit and related services to agriculture and rural America.

Examination Programs

One of our highest priorities is the development and implementation of efficient and effective examination programs that meet the high standards and expectations of the Congress, investors in System debt obligations, the farmers, ranchers, and cooperatives that own System banks and associations, and the public at large. We conduct examinations according to risk-based examination principles, which means we set the scope and frequency of each examination based on the level of risk in the institution.

We continuously identify, evaluate, and proactively address these risks. We also use an examination cycle of up to 18 months for certain institutions, where appropriate, as permitted by the Farm Credit System Reform Act of 1996. We continually enhance our risk identification capabilities. Our Early Warning System identifies existing and prospective risk at FSC institutions. Each institution is reviewed quarterly to identify changes in its risk characteristics, and the Financial Institution Rating System (FIRS) rating is adjusted as needed. In addition, we use our forecasting model semiannually to identify and evaluate prospective risk in FCS institutions over the next 12 to 24 months under "most likely" and "worst case" scenarios, respectively. This includes monitoring trends in prices for various commodities. This proactive approach is intended to evaluate an institution's financial condition and performance under various scenarios to identify institutions with emerging risks and the potential for deterioration. This allows us to implement our differential supervision program to address and correct potential problems. We continue to enhance our modeling capabilities so that we can identify in a timely manner economic developments that may affect the financial condition of FCS institutions.

FIRS uses six components—Capital, Assets, Management, Earnings, Liquidity, and Sensitivity to interest rate risk (CAMELS)—to measure the performance of each FCS institution. The FCA assigns every institution a composite rating and a rating for each of the six individual rating components at least quarterly. The FIRS ratings reflect current risk and conditions throughout the System. In addition, our examiners provide continuous oversight of System institutions to ensure that risk in the System is adequately monitored and addressed.

I am especially pleased to report that for the first time in the System's history, more FCS institutions are rated "1", which is the highest FIRS category, than are rated "2". As of February 26, 2001, all rated System institutions, except one small association, achieved a composite rating in the two highest of the five FIRS categories. Currently, no System institution is under an enforcement action.

During fiscal year 2000, other Federal agencies used our expertise. Pursuant to an agreement with the Small Business Administration (SBA), the FCA conducted examinations of Small Business Lending Companies that are licensed to make SBA guaranteed loans. In fiscal year 2000, the FCA helped train examiners in the Office of Thrift Supervision (OTS) who now review an increasing number of agricultural loans made by savings associations. These arrangements help us to maintain the high quality skills of our examiners and defray some of the costs of our operations while providing valuable assistance and service to other Federal agencies.

Strategic Planning and Performance Plans

During fiscal year 2000, we focused on improving our methods for measuring the FCA's performance under the Strategic Plan. We refined the Annual Performance Plan covering Fiscal Years 2001 and 2002 in accordance with the Government Performance and Results Act of 1993. The Performance Plan lists our performance measures and goals, many of which link to strategic goals, objectives, and initiatives. These goals and objectives help us to deal effectively with rapid changes in agriculture and the System during both strong and weak economic conditions. We also use these performance measures and goals to assess our ultimate effectiveness in ensuring the safe and sound operation of the FCS.

Regulatory, Policy, and Philosophy Initiatives

Congress has given the FCA Board statutory authority to establish policy and prescribe regulations necessary to ensure that FCS institutions comply with the law and operate in a safe and sound manner. We strive to adopt sound and constructive policies and regulations, using a proactive and preventive approach that reflects the changing needs of agriculture. Our objective is to promulgate regulations that achieve safety and soundness goals while minimizing regulatory burden on System institutions.

During fiscal year 2000, we continued our efforts to remove geographic barriers within the FCS that limit the credit options of eligible farmers and ranchers and prevent System institutions, as single industry lenders, from diversifying concentrations in their loan portfolios. We repealed regulations that required an FCS bank or association to provide notice or obtain consent before it participated in loans that commercial banks and other non-System lenders made in the chartered territories of other System institutions. A Farm Credit bank and five of its affiliated associations opposed the final rule and subsequently filed suit in the United States District Court for the District of Columbia. Their suit asked the court for a declaratory judgment that the final rule is invalid and contrary to law. This action is currently pending.

The FCA is developing a new rule that would remove geographic lending barriers that have restricted the operations of FCS associations for decades. As a result, this rule would enable each direct lender association to apply for and obtain a charter that would authorize it to lend and offer related services to farmers, ranchers, and other eligible customers without geographic restrictions. The rule would require each association to comply with stringent business planning requirements and safety and soundness criteria. Each association must continue to serve, on a priority basis, the credit needs of farmers, ranchers, and other eligible borrowers in its local service area, which in most cases is the area it served before the removal of territorial boundaries. Expanded charters would not include territories of certain associations in four states that the FCA, by law, cannot overcharter unless the shareholders, in some cases the boards, and the funding banks of these associations consent. The FCA has proposed new regulations that would provide a process for the shareholders, boards, and the banks of the affected associations to vote on allowing other FCS associations to serve these areas.

During fiscal year 2000, the FCA adopted final rules concerning regulatory burden on FCS institutions, civil money penalties, standards of conduct, flood insurance, and disclosure to shareholders. Our proposed regulations addressed termination of FCS status, loans to designated parties, FCS funding of commercial banks and other financing institutions, loan purchases and sales, and issuance of stock in service corporations. The FCA Board issued two policy statements. One emphasized the obligation of FCS institutions to protect the privacy of personal information about their borrowers, while the other provided System institutions with more guidance about official and trade names.

Corporate Activities

During the past year, many FCS associations have merged or adopted new corporate structures that include wholly owned operating subsidiaries. These restructurings are expected to lower risk through diversification, reduce operating expenses, and enable associations to use their capital more efficiently while offering their customers a broader array of services on a one-stop basis. The FCA has devoted much time and energy in the past year to processing and approving these corporate applications. In fact, the number of corporate applications received by the FCA set a new record. In fiscal year 2000, we processed and approved 93 applications, which was double the 46 applications that we processed the previous year. We were able to handle the increased workload with our existing staff by reprioritizing other work and using creative and streamlined approaches for processing the applications. We met all 60-day review requirements of the Farm Credit Act of 1971, as amended (Act), unless waived by the applicants, and granted approval before the requested effective date in every case.

CONDITION OF THE FARM CREDIT SYSTEM

I am pleased to report that the FCS is a financially strong and reliable source of affordable credit to agriculture and rural America. The quality of loan assets, risk-bearing capacity, stable earnings, and capital levels collectively reflect a healthy System that has rebuilt its financial strength and improved its management systems. Despite various external factors affecting agriculture, such as reduced export demand, adverse weather conditions, and low commodity prices, the System's

strong financial position will help it weather adverse effects from potential deterioration in the agricultural economy.

Since 1994, the System has steadily earned $1 billion or more each year. This has resulted in a large capital cushion that will enable the System to absorb losses and remain a viable lender to agriculture during downturns in the agricultural economy.

The quality of the System's loan portfolio has remained generally favorable despite continued adverse economic conditions in the agricultural sector and a slight deterioration in the performance of certain loans to cooperatives. Signs of deterioration have yet to materialize in the System's loan portfolio, and early warning indicators are much more positive than in the mid-1980s when the System last experienced serious asset quality problems.

Loan volume continues to grow, while the level of nonperforming loans, including nonaccrual loans,[1] consistently remains low. Delinquent loans also remain minimal at less than half of one percent of total loans.

The System continues to build capital through retained earnings. Total capital as a percentage of total assets has increased from 14.2 percent as of September 30, 1996, to 15.6 percent as of September 30, 2000. All institutions met their regulatory capital requirements, and most greatly exceeded them. Permanent capital ratios at System banks and associations ranged from a low of 9.94 percent to a high of 38.2 percent compared with the 7.0 percent minimum regulatory capital requirement.

Better management practices have resulted in stronger loan underwriting standards at most System institutions. Adherence to strong loan underwriting standards usually results in sound loans. Additionally, this helps insulate an institution's capital from excessive risk in a challenging operating environment. As a result of improving their management and internal controls, System institutions have been diligent in identifying and dealing with troubled loans early on. Also, improved asset/liability management practices have enabled System banks to effectively manage interest rate risk.

Economic stress in agriculture, however, is beginning to temper this good news. Prices for many agricultural commodities are low while farm production costs, particularly for energy, are increasing. As a result, the profit margins of many farmers are squeezed. Federal support for agriculture over the past several years has been necessary to help farmers repay their loans. Obviously, farmers, System institutions, and the FCA would much prefer that more favorable commodity prices would generate higher profits and better income for agriculture. In addition to strong capital and diligent management at System banks and associations, Federal assistance to farmers has also played an important role in helping the System maintain the quality of its loan portfolio.

Two indicators of profitability, net interest margins and net interest spreads, have been trending downward since 1995. Return on assets has also followed a declining trend for the past six years, although it increased in 2000. While these downward trends raise concerns, they also stress why retained earnings and strong capital are crucial to the continued financial strength of System institutions.

The allowance for loan losses continues to be adequate to cover risk in the loan portfolios. Since 1993, the System has steadily increased its allowance for loan losses to almost $2 billion at the end of 2000. This increase is necessary to protect against the stress in the farm economy.

Perhaps the biggest challenge facing the System is the fact that it is a single-industry lender in a shrinking market. The number of farmers and ranchers has steadily declined ever since the System was founded in 1916. However, the System's mission is to finance agriculture in both good and bad economic times. The loan portfolios of System institutions, as single-industry lenders, are concentrated in agricultural commodities. As of September 30, 2000, there were 197 instances at 135 associations where loans to a single commodity exceeded capital. The System lends overwhelmingly to agriculture, which is the sector of the economy that is particularly vulnerable to changes in commodity prices, currency fluctuations, bad weather, diseases, pests, and other difficulties. The FCA will remain ever vigilant with regard to its safety and soundness mission in the face of the challenges confronting the System.

FEDERAL AGRICULTURAL MORTGAGE CORPORATION

The FCA has oversight and examination responsibility for the Federal Agricultural Mortgage Corporation, which is commonly known as Farmer Mac. Congress established Farmer Mac in 1988 to operate a secondary market for agricultural

[1] Nonperforming loans consist of nonaccrual loans, accruing restructured loans, and accruing loans 90 days or more past due.

mortgage and rural home loans. In this capacity, Farmer Mac creates and guarantees securities that are backed by mortgages on farms and rural homes. We monitor Farmer Mac's operations and financial condition and provide periodic and timely reports to Congress.

On February 21, 2001, we adopted a final risk-based capital regulation for Farmer Mac. The new regulation is designed to ensure that Farmer Mac has sufficient capital to meet its mission, especially during times of economic stress. The final rule establishes a risk-based capital stress test that will determine the minimum level of risk-based regulatory capital necessary for Farmer Mac to maintain positive capital during a 10-year period if stressful credit and interest rate conditions occur. The final rule requires Farmer Mac to run the risk-based capital stress test at least quarterly to determine the adequacy of its capital and to report the results to the FCA. The stress test is based on a statistical model used to project Farmer Mac's capital sufficiency over the 10-year stress period.

The FCA continues to monitor Farmer Mac's debt issuance and non-mortgage investment strategy. We also examine Farmer Mac's strategic and operational business planning. In 2000, Farmer Mac had $10.4 million in net earnings, compared with $6.9 million in 1999 and $5.7 million in 1998. Farmer Mac's capital remains above the minimum prescribed by the Act and its total loan program activity continued to increase, reaching $3.19 billion at December 31, 2000.

In conclusion, we are proud of our efforts and accomplishments in ensuring the safety and soundness of the Farm Credit System. We will continue to efficiently manage our resources while performing FCA's mission in the way Congress intended. Mr. Chairman, on behalf of my colleague on the Board, Ann Jorgensen, and myself, I thank you for the opportunity to share this information with you.

ADDITIONAL SUBMITTED QUESTIONS

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

DEPARTMENT OF AGRICULTURE

COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE

ADVANCED GENETIC TECHNOLOGIES, KENTUCKY

Question. Please provide a description of the research that has been funded under the Advanced Genetic Technologies, Kentucky grant.

Answer. This is a new special grant this year. The agency has requested the university to submit a grant proposal that has not yet been received. Preliminary communications with the principal researcher indicate that the project involves development of a high throughput deoxy-ribonucleic acid analysis facility. This will be used in genomics research projects on agricultural species aimed at (1) discovering genes and mechanisms to reduce the impact of diseases and pests on agricultural plants and animals, (2) metabolic engineering to produce novel commercial and pharmaceutical products from plants, and (3) enhancing crop and livestock productivity through genomics-facilitated breeding.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the principal researcher, the national need is that a fundamental understanding of crops and livestock, their symbionts and their pests can be gained far more rapidly and definitively by genomics tools and associated technologies. Information about whole genomes—such as very high density genetic maps or sequences of chromosomes—facilitates discovery of genes associated with metabolism, stress and parasite resistance, and yield. At the regional and local levels, the infrastructure generated through this grant will allow genomic analysis of local specialty crops and animals, a focus on their metabolites, pests and diseases, and an understanding of how plants and animals are or can be adapted to local environmental conditions.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to increase the productivity of agricultural plants and animals by high-throughput genomic approaches. Similar research has been ongoing at this site, but at a much lower level than will be made possible by the research support technology to be funded by this award. Previous research included improvements of genetic maps of soybean, wheat, horses, and cattle; identification of plant genes for leaf senescence, organ development, stress tolerance, disease resistance, and secondary metabolism; and identifying genes in microorganisms that either enhance the productivity of plants and animals or contribute to the diseases of plants and animals.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated is $473,955.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The present commitment of non-Federal funds and sources provided for this grant is approximately $300,000 from State and Agricultural Experiment Station Funds and approximately $25,000 for 0.3 full time equivalents in faculty time.

Question. Where is this work being carried out?

Answer. The research is conducted at the University of Kentucky, Lexington Campus, College of Agriculture/Kentucky Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is June 30, 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is the first year of the grant so a previous evaluation of the project has not been conducted. The agency will convene a merit review panel to evaluate the project when a proposal for fiscal year 2001 is received.

ADVANCED SPATIAL TECHNOLOGIES, MISSISSIPPI

Question. Please provide a description of the research that has been funded under the Advanced Spatial Technology, Mississippi grant.

Answer. This research will evaluate the use of site-specific technology and assess the economics of this application for site-specific precision farming. Cultural practices will be studied and integrated into a management system using site-specific technology to monitor yield and variable rate application. This project will expand on work conducted under the Spatial Technology Special Research Grant funded at $350,000 in fiscal year 1997 and $600,000 in 1998.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need for this research is to provide farmers with unbiased information on the application and economics of site-specific technologies for cotton, soybean, and rice production in the mid-south.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to evaluate site-specific technologies and develop recommendations for management decisions related to fertilization, pest control, and other cultural practices. Yield monitor and variable rate technology have been evaluated and are being adopted by farmers.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997 and the appropriation for fiscal year 1997 was $350,000; for fiscal year 1998 it was $600,000; for fiscal years 1999–2000 was $1,000,000 per year; and for fiscal year 2001 is $997,800 for total of $3,947,800.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant are $620,300 in 1998, $942,000 in 1999, and $974,000 in 2000. These funds are state appropriations that support the salaries of scientists and their support staff.

Question. Where is this work being carried out?

Answer. The research will be conducted on various Mississippi Agricultural Experiment Station facilities and farmer fields around the state.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Project Manager recognizes that it will take several years of field research to develop and demonstrate these technologies. Some objectives have been completed and results are being put into practice by farmers. Others are long term and will require multiple years to complete. Results from all experiments are evaluated at years end and used to fine tune remaining objectives as well a initiate priority new ones.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project is subject to a thorough peer review in preparation of the grant proposal in addition to the year end assessment of progress for each experiment. A program update and field tour is held during the growing season for farmers, extension, and other researchers. Substantial improvements have been made in yield monitor for cotton harvesters and all program integration.

AFLATOXIN RESEARCH, ILLINOIS

Question. Please provide a description of the research that has been conducted under the Aflatoxin Research, Illinois grant.

Answer. This research is focused on development of strains of corn which will be highly resistant to infection with Aspergillus flavus and the production of aflatoxin

under field conditions. Transfer of genetic material from resistant strains to other usable, inbred strains of corn is underway, and these new strains are being field tested to determine level of resistance to fungal infection.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. There is continuing concern about the role of aflatoxins as carcinogens in the human population. The aflatoxin material is also toxic to animals and humans. The presence of the fungus in corn results in a lower value for the crop and the possible rejection of the corn. Aflatoxin contamination continues to be a serious problem in the southern and southeastern U.S., with additional outbreaks also occurring during severe drought conditions in the upper mid-west and other areas during the past few years.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was the reduction of infestation of corn with Aspergillus flavus and the consequent reduction of aflatoxin in the corn produced. The approach being used is to develop strains of corn which are genetically resistant to infestation with the fungus. The researchers have produced strains with resistance genes for both prevention of infection with A. flavus as well as the production of the aflatoxin itself. Field trials have been in progress to determine effectiveness of these resistance factors under normal growing conditions when exposed to the fungus. The work has now progressed to the stage where it seems likely that more than one gene will have to be transferred to produce strong resistance to the Aspergillus infection and production of aflatoxin.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1990, $87,000; fiscal year 1991, $131,000; fiscal years 1992–1993, $134,000 per year; fiscal year 1994, $126,000; fiscal years 1995 through 2000, $113,000 per year; and for fiscal year 2001, $130,712. A total of $1,420,712 has been appropriated.

Question. What is the source and amount of non-Federal funds by fiscal year?

Answer. The non-Federal funds have been from state appropriated dollars in the form of principal investigator and technical salaries, equipment usage, and experimental plot expenses. These have been at the level of $130,000 for fiscal years 1997 and 1998 and $24,747 for fiscal year 1999. In fiscal year 2000, $65,000 in state and institutional funds were provided plus $59,890 in related indirect costs not supported by the grant.

Question. Where is this work being performed?

Answer. The research is being performed in the Department of Crop Sciences at the University of Illinois.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives was 1995, but the project was revised last year to continue into fiscal year 2002. The primary reason for the extension of the work is that there appears to be multiple resistance genes which are necessary to prevent both the infection with the fungus and the synthesis of the aflatoxin compound. The investigators are very optimistic about the future success of this approach. This work was discussed at a meeting of Multi-State Research Project NC–129 on January 25–26, 1999, in New Orleans, Louisiana, and the Principal Investigators are members of the Technical Committee of this project. This committee is very supportive of this line of research.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was evaluated in 1996 and again in March, 2000. The investigators have made good progress on this project. They have identified two genes which are required to have good protection against the fungus. They are testing several approaches to determine which will give them the best protection against the fungus. Unfortunately, the resistance to the Aspergillus flavus fungus which produces aflatoxin does not seem to carry over to other fungi such as Fusarium moniliforme, the origin of fumonisins. During the review it became apparent that a major impediment to more rapid progress is the lack of funds to permit larger scale field trials to test the transformed strains.

AGRICULTURAL DIVERSIFICATION AND SPECIALITY CROPS, HAWAII

Question. Please provide a description of the research that has been funded under the Agricultural Diversification and Specialty Crops, Hawaii grant.

Answer. A variety of research efforts are taking place, and they have outreach components that are adding value for clients. Work on the development of the most efficient post-harvest processing methodology for stevia, a natural sweetener, has begun and results are encouraging. Work on a production manual for fish in traditional Hawaiian fishponds on Molokai has also begun. This manual, written for the small entrepreneur, will include the results of production research. Work on food safety continues with a food safety survey sent out to 2,100 produce growers in December, 2000. This survey also had 20 frequently asked questions about food safety so that nearly all of Hawaii's produce growers have now become aware of the issue of food safety. Collaboration with the Hawaii Department of Agriculture has also led to the future establishment of a cadre of food safety auditors at the College of Tropical Agriculture and Human Resources, the Hawaii Department of Agriculture, and the private sector. Our website continues to be a major resource for information on food safety. Our "Profit Estimator" poster was available for clients in February 2000. This unique cost of production and profit estimation tool will allow any entrepreneur to calculate their costs and profit in five minutes without using a computer, software, or calculator. This project continues to advise the Hawaiian Commercial and Sugar Company on the possibility of starting a large-scale white taro production and processing operation in high pressure minimal processing for pineapple and other tropical fruits. The cause of premature fading of pineapple slices has been determined, and the temperature, pressure, and time relationship has been identified to achieve sterility. Plans are underway to work with the Hawaii Department of Agriculture and the Hawaii Agricultural Statistics Service to build a website where users can generate a graph of the prices of commodities found in the market place each day. The user can then define a time period and display the nature of price rises and declines. This information can help fine-tune production decisions.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Hawaii's economy continues to lag behind national averages where growth is concerned. The various projects under the umbrella of the Diversified Agriculture and Specialty Crop grant rely on research information to build decision-making tools. These tools help entrepreneurs make more informed decisions. When entrepreneurs make better decisions they have a higher chance of making a profit in business. The decisionmaking tools are being used in Hawaii, the Pacific, and on the mainland.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the original proposal was to screen potential food and non-food crops for commercial development in Hawaii and then make earnest attempts to work with willing and able entrepreneurs to move the results of research to the private sector. While the University of Hawaii continues to screen crops to help entrepreneurs pick the best ones for production and the market place, there are few decisionmaking tools that can help entrepreneurs take their products more successfully to market. Thus, there is an emphasis on information tools such as websites and the profit estimation/cost of the production poster. To help farmers prepare for increased food safety scrutiny, the University of Hawaii is working with Hawaii State agencies and other non-profits to reach out to farmers with critical information.

Question. How long has this work been underway and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows, fiscal years 1988–1989, $156,000 per year; fiscal years 1990–1993, $154,000 per year; fiscal year 1994, $145,000; fiscal years 1995–2001, $131,000 per year; and fiscal year 2001, $130,712. A total of $1,989,712 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The University of Hawaii provides in-kind support in the form of laboratory and office facilities, equipment and equipment maintenance, and administrative support services which was $68,503 in fiscal year 1992; $75,165 in fiscal year 1993; approximately $75,000/year in fiscal years 1994–1996, and approximately $20,000/year in fiscal years 1997–2000. Funds are also being leveraged from other private sector, state, and Federal sources for the development of nutraceuticals.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Hawaii's College of Tropical Agriculture and Human Resources on the island of Oahu, and other Hawaiian islands as necessary.

Question. What is the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date for additional or related objectives?

Answer. Profit/cost of the production poster will be available in February 2001. The Lei plant manual will be out in the first quarter of 2001. Work on Molokai fish production will conclude in December 2001. Work is just starting on transportation and food safety issues and will continue through 2002. Work on business related information tools will continue through 2002. Work continues on high pressure processing of tropical fruits and will continue through 2002. Work on nutraceuticals, particularly cultural practices and disease management of kava and stevia, is continuing through 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is progressing to reach the goals set forth in the proposal.

AGRICULTURAL DIVERSITY/RED RIVER, MINNESOTA AND NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the Agricultural Diversity/Red River, Minnesota and North Dakota, grant.

Answer. This project has been an effective contributor to economic growth through a program of regional collaboration that helps to strengthen the region's competitive position in the global marketplace. A key and overarching goal of the project has been to bring together people and resources to enhance economic development for the region. This multi-year, multi-phase project will have six specific components. They are: (1) vegetable growing research—especially field and glasshouse related research, (2) vegetable collection and storage research and/or related storage or distribution business development, (3) development of processing industries for the fresh market or research related to the fresh products for market, (4) development of marketing and/or supply associations among vegetable producers, (5) development of processing industries for the ready-to-eat salad market or research related to ready-to-eat products, and (6) development of processing industries for the frozen vegetable products market or research related to frozen products.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Initially the growing of vegetables in the region was driven by an opportunity to meet increasing consumer demands for fresh vegetables, and the northern plains states of Minnesota, North Dakota, and South Dakota have been identified as one area that could meet this need. The opportunity to add a high-value crop to the rotation cycle for northern Great Plains farmers can help to decrease their dependence upon program crops. The shift in cropping patterns can have a positive effect on farm income and lessen the need for outside or Federal financial assistance. Interest in the potential for adding higher value crop to the rotation cycle, including vegetables, has increased significantly in the past two years due to the poor farm economy. Research on the potential for adding new crops to the region's production base could help stabilize the farm economy in the region and lessen the need for outside financial assistance to farmers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original project goals include: (1) Conduct three replicated field trials on growing of carrots; (2) Continue study of vegetable growing techniques in Europe and continue negotiations with vegetable growing research facilities/laboratories in Europe to transfer growing knowledge to the region; (3) Review current and future market opportunities for further development of the industry and identify strategies and partners for pursuing these opportunities and take appropriate organizing steps; (4) Develop and maintain a web page for this vegetable industry project; (5) Conduct market research for establishment of a ready-to-eat delicatessen salad processing facility in the region; (6) Conduct market research for establishment of a ready-to-eat fresh-bagged salad processing facility in the region; (7) Continue business development planning for establishment of a ready-to-eat delicatessen salad processing facility in the region; and, (8) Continue business development planning for establishment of ready-to-eat and fresh-bagged salad processing facility in the region.

To date this grant has accomplished the economic incubation of a new deli-salad production system and industry for the region. Additional new regionally based in-

dustries that are being promoted, developed, and served by this grant include vegetable dehydration, greenhouse table vegetable production and alfalfa processing.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This work supported by this grant began in fiscal year 1998 with appropriations for fiscal years 1998 through 2000 of $250,000 each year and $374,175 in fiscal year 2001 for a total of $1,124,175 appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Efforts have been made to secure non-Federal funding from individual states and commodity groups. To date the States of North Dakota and Minnesota have been a source of approximately $65,000.

Question. Where is the work being carried out?

Answer. The work is being carried out in Minnesota, North Dakota, and South Dakota.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Progress is being made on the original objectives. It is expected that this will be a multi-year, multi-phase project.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project is evaluated by review of the proposal and the annual project reports. An on-site review was conducted during June of 2000. This project has been an effective contributor to economic growth through a program of regional collaboration that helps to strengthen the region's competitive position in the global marketplace. A key and overarching goal of the project has been to bring together people and resources to enhance economic development for the region. This project funding has facilitated the formation of a networking strategy that links manufacturing, financial, legal, transportation, trade services, and economic development sectors into a region-wide economic growth effort and to create a Red River region marketing program. The Red River Trade Council has become an important resource to the region in the development of grower driven alliances. The Red River Trade Council and its affiliate organization, The Northern Great Plains Initiative for Rural Development, currently serve as the staff for the FarmConnect effort in Minnesota, and they also serve as the resident agent for the U.S. Ag Producers Alliance. The project has had a strong presence on the world wide web and has facilitated entry of rural manufacturing business and agri-business into web-based e-business.

AG-BASED INDUSTRIAL LUBRICANTS RESEARCH PROGRAM, IOWA

Question. Please provide a description of the research that has been funded under the Agricultural-Based Industrial Lubricants Research Program, Iowa grant.

Answer. This project is a continuation of ten years of activity conducted to target specific applications, establish baseline performance data, develop formulations of additives and chemical modifications, administer laboratory and field tests, characterize, and build relationships for commercialization of industrial lubricants derived from U.S. grown vegetable-based oils. Baseline performance data will be compiled to establish fatty acid compositions, guide genetic modifications, additive development, establish standards relative to toxicity and biodegradability, and characterize compatibility with specific metallic and non-metallic components. The grant has been peer reviewed internally at the University of Northern Iowa.

Question. According to the research proposal, or the principal research, what is the national, regional, or local need for this research?

Answer. Primary local and regional need is related to expanding value-added applications of agricultural commodities in order to stimulate increased demand and raise crop prices paid to farmers. On a national level, pursuant to the Biomass Research and Development Act of 2000, Executive Orders 13101 and 13114, the need is to provide renewable, safer, more environmentally-sound alternatives to petroleum-based industrial lubricants. Furthermore, there is a belief that there are international possibilities for the use of genetically-modified soybean-based lubricants. Considering the controversy in Europe for genetically-modified food, premium quality lubricants made of genetically modified domestic crops present a potential for use in a more non-controversial area i.e., industrial lubricants.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the program was sponsored by non-Federal funding to develop a soybean-based hydraulic oil which was introduced to market in July

of 1997 as BioSOY hydraulic fluid. Field testing of two grease formulations and a dielectric transformer coolant are near completion, as well as development of a two-cycle engine lubricant, and bar and chain oil. A large volume of technical data has been compiled specific to crop-based oil and lubricants. This program has identified and has begun servicing a broad array of market development requirements, including demonstrating specific performance features, expanding awareness, and supporting government purchase initiatives. In September 1999, two new soybean-based lubricants were licensed to West Central Coop and are now commercial products. Those were a chain saw bar oil called SoyLINK and a fifth wheel grease called SoyTRUK. A new marketing arm spin-off from the University Foundation is planning to market 12 soybean oil-based lubricants developed through this program.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Federal funding for this project began with a 1998 appropriation of $200,000. Fiscal years 1999 and 2000 appropriations are $250,000 each year; and fiscal year 2001 is $349,230, for a total of $1,049,230 appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since 1992 this research program has received cash grants from the Iowa Soybean Promotion Board, Carver Scientific Research Initiatives, in addition to several in-kind donations from industry, to develop and coordinate commercialization of what has since become BioSOY hydraulic oil. Beginning in 1995, the state of Iowa began to support the program through its Wallace Technology Transfer Foundation. Beginning in 1996, state funding was provided by legislative appropriation through the Iowa Department of Economic Development. Additional funding has been provided by the Iowa Department of Agriculture and Land Stewardship. In fiscal year 2000 $150,000 was appropriated through the Iowa Department of Economic Development, $25,000 from the Iowa Soybean Promotion Board, $25,000 from Iowa Department of Agriculture and Land Stewardship, $32,500 from John Deere, and other awards and service revenues totaling approximately $75,000. State funding for fiscal year 2001 in the amount of $400,000 has been requested through direct appropriation to the university.

Question. Where is the work being carried out?

Answer. Laboratory and literature studies are being carried out primarily at the Ag-based Industrial Lubricants Research Program facility in Waverly, Iowa, with minor portions of activity being conducted on the campus of the University of Northern Iowa in Cedar Falls, Iowa, and other labs. Field tests are being conducted at Sandia National Laboratories, U.S. Department of Army test sites, some municipalities, and in industrial equipment located throughout the nation. A short line Iowa-based railroad and a class I railroad have been testing soybean-based rail/flange grease with success. The rail systems in San Francisco—BART—and in Oregon—Tri-Met—now use soybean-based rail flange grease at their facilities. The Iowa Department of Transportation has begun conversion of most of its mobile equipment to the soybean-based hydraulic fluid developed under this program

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives have been met, in part, with the optimization, demonstration, and commercialization of the soy-based hydraulic fluid, chain and bar lubricants, grease for semi-trucks, plus several other products that are being commercialized this year. Data collection, additive and modification research, characterization, and supplier development objectives of the last year are ongoing. Commercialization of the dielectric transformer coolant is an added objective and has been expedited through to field testing. Activities to expand public awareness and support government purchase initiatives have been added to the original objectives. Field testing of some products is expected to be completed within a year. Additional lubricants in the metalworking applications are targeted for development and field testing with commercialization expected in two years. The program has begun to identify price reduction strategies for the first generation lubricants to make final cost of these products competitive with conventional petroleum lubricants. The price of some soybean-based greases developed with genetically-modified soybeans are anticipated to approach prices of conventional oils by the conclusion of the current project period.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The cognizant staff scientist reviews quarterly reports and has determined that this research is conducted in accordance with the mission of the agency.

AGRICULTURE TELECOMMUNICATIONS, NEW YORK

Question. Please provide a description of the research that has been funded under the Agriculture Telecommunications, New York grant.

Answer. This program encourages the development and utilization of an agricultural communications network to facilitate and strengthen agricultural extension, resident education, and research, and domestic and international marketing of U.S. commodities and products through a partnership between eligible institutions and the USDA.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. The following needs will be addressed by this program:

—Make optimal use of available resources for agricultural extension, resident education, and research by sharing resources between participating institutions;

—Improve the competitive position of U.S. agriculture in international markets by disseminating information to producers, processors, and researchers;

—Train students for careers in agriculture, natural resource management, environmental science, human sciences, and the food industries;

—Facilitate interaction among leading agricultural scientists;

—Identify new uses for farm commodities and increase the demand for U.S. agricultural products in both domestic and foreign markets.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this program is to encourage the development and utilization of an agricultural communications network to facilitate and strengthen agricultural extension, resident education, and research, and domestic and international marketing of U.S. commodities and products through a partnership between eligible institutions and the USDA. Various educational, extension, and technology transfer projects have been funded through the program in fulfillment of this goal.

Question. How long has this work been underway and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. The project began in fiscal year 2000. Appropriations for fiscal year 2000 was $425,000 and for fiscal year 2001 is $424,065 each year for a total of $849,065. The project was previously funded under the Extension Activities account.

Question. What is the source and amount of non-Federal funds provided, by fiscal year?

Answer. Prior to fiscal year 2000, the project received a 100 percent match of funds from non-Federal sources. However, beginning in fiscal year 2000, it became a special research grant and does not require a match of funds from non-Federal sources.

Question. Where is this work being carried out?

Answer. Cornell University will award grants competitively throughout the U.S.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Individual projects being funded address ongoing needs for information dissemination and technology transfer. As each project is completed the results are evaluated to determine the success of meeting the program's objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted?

Answer. The agency evaluated this project each year via a report from institutions funded. The following highlights the programs funded under this project:

The University of Minnesota, Washington State University, University of Arizona, and Virginia Tech will collaborate to develop and pilot a model for a national system for technology-enhanced pesticide applicator training and education. The model can be replicated in other national programs that require certification.

Oregon, Maryland, Vermont, Kentucky, Alabama, Wisconsin, Oklahoma, Kansas, California, Wyoming, Montana, Washington, and Arizona will collaborate to develop a comprehensive knowledge resource for alfalfa, the National Alfalfa Information System, providing an improved information resource for educational programs.

Florida, Kentucky, Georgia, Mississippi, and Texas have developed a national real-time Internet web-based radio network for agricultural, food, human and natural resource related information to present and promote new and existing educational information from land-grant universities and colleges providing the public with the latest up-to-date information.

Nebraska, South Dakota, Colorado, Minnesota, and Wisconsin established a library of Internet-based teaching modules in plant biotechnology that facilitate inter-

active learning to assemble programs that target the education needs of agricultural professionals.

Idaho, Colorado, Nevada, and California developed multiple courses for a national audience of persons related to mealtimes in child programs, including the USDA Child Care Food Program. The program provides research-based information via distance education to those who feed children in group settings and offers on-going accessible course work and in service training.

Pennsylvania, California, Texas, and Puerto Rico have developed web-based learning programs for food industry professionals designed to empower current and future food processing industry professionals to be effective product development team players, problem solvers, decision makers, and communicators with the ultimate goal of assisting companies in creating the expertise to develop and market new products.

Missouri and Colorado teaming with USDA's Meat Animal Research Center are using the world wide web and computing resources to deliver a sophisticated decision support tool to producers, educators, and researchers linking herd based, bioeconomic simulation models related to cattle production systems.

Indiana and Kentucky with 33 other universities have designed a national interactive computer-based learning project for youth. This network is an integral component of curriculum developed by the National 4–H Cooperative Curriculum System for youth ages 8–19.

Nebraska, Iowa, Kansas, North Dakota, South Dakota, and Texas developed an inter-institutional program of studies leading to a Masters of Science in family financial planning through distance education. The program uses the expertise of several institutions to provide opportunities for pursuit of higher education and lowers barriers to inter-institutional collaboration.

AGRICULTURE WATER USAGE, GEORGIA

Question. Please provide a description of the research that has been funded under the Agriculture Water Usage, Georgia grant.

Answer. The project will determine agricultural water use in Georgia using a two percent statistical sample of water sources. Equipment has been purchased and personnel hired to conduct the project.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. Water has become a major issue in the southeast. The tri-state water "issue" between Florida, Georgia, and Alabama involves allocating interstate waters in the primary river basins that begin in the Atlanta area. These allocation formulas are completed and ready for use. The salt water intrusion problem associated with coastal Georgia and South Carolina is also a major issue. Both of these problems suffer from a lack of data on agricultural water use across the state. This program seeks to develop a monitoring and modeling strategy to determine the quantity of water used by agricultural irrigation. The program is designed to begin in Georgia and allow expansion of the program into neighboring states for a better estimate of agricultural water use.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The project hired strategic personnel for the monitoring program and development of the equipment and the database to be used for obtaining volunteers for the monitoring phase. This integrated project will involve the development of computer based models to take a monitoring sample and extrapolate that information for the entire state.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999. The appropriation for fiscal years 1999 and 2000 was $300,000 per year and for fiscal year 2001 is $299,340 giving a total of $899,340.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The State of Georgia through the Georgia Department of Natural Resources, Environmental Protection Division appropriated $289,000 for fiscal years 1998–1999 and is expected to appropriate $250,000 per year for an additional 4 years to help support this project.

Question. Where is the work being carried out?

Answer. Research will be conducted from the University of Georgia, College of Agricultural and Environmental Sciences. The primary coordination of the program will be centered in the Biological and Agricultural Engineering Unit at Tifton, Geor-

gia, but the program will involve input from personnel in Griffin and Athens and researchers outside the University of Georgia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This project, within the overall agricultural water use program, is anticipated to be completed within the original 5-year time frame. Since this project is new, objectives have not been completed to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project is new and has not been through an agency evaluation; however, the investigators prepare quarterly reports for the State. The procedures used to conduct the project have been peer reviewed, and publications developed by the project will be peer reviewed. One product has been produced, "Irrigation Conservation Practices for the Southeast U.S.", a 60-page report.

AGROECOLOGY, MARYLAND

Question. Please provide a description of the research that has been funded under the Agroecology, Maryland grant.

Answer. The agency has requested the university to submit a new grant proposal that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The need for this research is to protect the largest estuary of the Chesapeake Bay in the U.S. that is fed by eight states. Maryland is trying to achieve its share of the 40 percent nutrient reductions required by the new Chesapeake 2000 Agreement while maintaining economically-viable agriculture and natural resources. Agriculture is the predominant land use and economic engine for Maryland. It requires the generation of additional science-based knowledge and policy guidance in the fields of biological, physical, and social sciences.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal is the generation of science-based policy decisions towards reaching the 40 percent reduction goals while maintaining viable agriculture and natural resource industries. Fiscal year 2001 is the first year for this project.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were $285,000 state appropriations.

Question. Where will the research be carried out?

Answer. This is the first year for this grant, but the principal investigator envisions that work will be carried out at appropriate, well-equipped laboratories and field sites throughout the University of Maryland system and the state.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is still being clarified for the first year. The principal investigator anticipates that this project will play an ongoing role in assisting agriculture in achieving long-term nutrient reduction and other cooperative goals of the Chesapeake Bay Program.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Since fiscal year 2001 is the first year of the project, no evaluation has yet been conducted.

ALLIANCE FOR FOOD PROTECTION, NEBRASKA AND GEORGIA

Question. Please provide a description of the research that has been funded under the Alliance for Food Protection, Nebraska and Georgia grant.

Answer. The fiscal year 2000 appropriation supports the continuation of a collaborative alliance between the University of Georgia Center for Food Safety and Quality Enhancement and the University of Nebraska Department of Food Science and Technology. Fiscal year 2000 funds supported research at the University of Nebraska on the detection, identification, and characterization of food allergens, the ef-

fects of processing on peanut allergens, and investigation of the efficacy of using various types of thermal processes to reduce or destroy the toxicity and mutagenicity of certain Fusarium metabolites in corn and corn products. Research at the University of Georgia was directed toward determining the foodborne significance of Helicobacter pylori, determining the effect of antimicrobials to eliminate Arcobacter from pork, determining the survival of E. coli O157:H7 at reduced water activity, and using extrusion cooking to destroy peanut allergens. Proposals from the University of Georgia and the University of Nebraska in support of the fiscal year 2001 appropriation have been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researchers believe the proposed research addresses emerging issues in food safety which have national, regional and local significance. Specifically, research will address bacterial pathogens that can cause ulcers, cancer, and diarrheal illness, toxic fungal metabolites in corn products, and allergens in foods that cause serious reactions, including death in sensitive people. These emerging issues affect consumers, the food industry, and food producers at all levels—national, state, and local.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The original goal of this research was to: (1) facilitate the development and modification of food processing and preservation technologies to enhance the microbiological and chemical safety of products as they reach the consumer, and (2) develop new rapid and sensitive techniques for detecting pathogens and their toxins as well as toxic chemicals and allergens in foods. The University of Nebraska developed assays for detection of peanut, milk, egg, almond, walnut, pecan, and hazelnut residues in processed foods; produced high-quality antibodies for these assays; identified and characterized a soybean allergen and two sunflower seed allergens; discovered clues as to the reason why Brazil nuts cause severe allergic reactions; discovered that certain types of Fusarium fungi do not produce mutagenic substances; developed a simple liquid chromatographic procedure for determination of moniliformin toxin; found that the corn flake manufacturing process can reduce levels of fungal toxins such as aflatoxin and fumonisins; also found that low levels of carcinogenic aflatoxins in corn grits might be reduced to less than regulatory actions levels by the corn flake manufacturing process; discovered that making corn flakes with sucrose did not help to reduce fumonisin levels, but that adding glucose, or toasting the flakes helped to reduce the fumonisin levels significantly; and created reagents that can be used to develop a rapid method to test corn for moniliformin toxin.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1996, and $300,000 per year was appropriated in fiscal years 1996 through 2000, and $299,340 in fiscal year 2001 for a total appropriation of $1,799,340.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were $117,000 state funds and $250,000 industry and miscellaneous in fiscal year 1996 and were estimated to be a minimum of $111,000 state funds and $305,000 industry and miscellaneous in fiscal year 1997; $70,000 state funds and $295,000 industry and miscellaneous funds in fiscal year 1998; $25,000 state funds and $250,000 industry funds in fiscal year 1999; and are estimated to be a minimum of $25,000 state funds and $25,000 industry funds in fiscal year 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Georgia Center for Food Safety and Quality Enhancement in Griffin, Georgia, and at the University of Nebraska Department of Food Science and Technology in Lincoln, Nebraska.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The original objectives have not yet been met. The researchers anticipate that work will be completed on the original objectives in 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposals submitted in support of the appropriation on an annual basis. A review of the proposal from the University of Nebraska was conducted on May 4, 2000, and good progress was demonstrated on the objectives undertaken in 1998. A review of the

proposal from the University of Georgia was conducted on May 4, 2000, and good progress was demonstrated on the objectives undertaken in 1998.

ALTERNATIVE CROPS, NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the Alternative Crops, North Dakota program.

Answer. The alternative crops project has two main thrusts—development and utilization of alternative or specialty crops and novel or new utilization of traditional crops. The goals of the project are to diversify income at the farm gate, and reduce reliance on monoculture to help alleviate pest problems, while providing new agricultural and industrial products to society. Some of the new areas under investigation include feeding of co-products from value-added industry to livestock; development of white corn and white wheat as alternative crops; alternative crops for aquaculture diets; development of unique dry bean market classes; alternative legumes for crop rotations; and expanding utilization of dry peas and lentils. Previous work continues with oilseed crops such as crambe, rapeseed, and safflower as a renewable supply of industrial oil, products from food crops for novel new uses in paints, coatings, food ingredients, and the development of new biochemical and enzymatic processes to refine oils for industrial uses. The projects funded in this appropriation are evaluated by a peer-panel chosen by the Associate Dean of Research at North Dakota State University. The internal peer review was conducted on the following criteria: (1) development of novel uses for new and existing crops, (2) development of niche crops and diversified agriculture opportunities, (3) identification of identity-preserved products, (4) adaptation of alternative corps, (5) scientific merit, (6) feasibility and practicality, (7) interdisciplinary efforts, (8) private sector involvement, and (9) potential economic benefit.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. Regionally, the temperate areas of the Midwest have the potential to grow a great number of different crops but are in need of publicly-sponsored research efforts to reveal the most practical, efficient, and economical crops and products to pursue.

Growers in surrounding states are currently utilizing the information generated by research conducted through this grant. The principal researcher believes that nationally developing new crops and new markets for agricultural products is critical for both environmental and economic reasons. Enhanced biodiversity that comes from the successful commercialization of new crops aids farmers in dealing with pests and reducing the dependency upon pesticides. New markets are needed to provide more economic stability for agricultural products, especially as Federal price supports are gradually withdrawn.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was and still is to introduce, evaluate, and test new crops which will broaden the economic diversity of crops grown in North Dakota. The primary emphasis continues to be the adaptation and development of new crops, utilization of new and existing crops, and creating value-added agricultural opportunities. A brief review of accomplishments includes: adaptation and expanded production of new crops including crambe, canola, field pea, lentil, lupin, chickpea, amaranth, and buckwheat; development of alternative crops and crop co-products for new markets in livestock and fish feeds; expanded knowledge on technical aspects of biochemical means of splitting oilseed fatty acids; deriving red dye and pectin from sunflower; creating new uses for various oilseeds; and developing improved nutritional profiles for selected food and feed crops. These efforts have forged a strong link with the private sector and successfully spawned several crops and products into profitable private sector businesses.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Appropriations by fiscal year are as follows: 1990, $494,000; 1991, $497,000; 1992 and 1993, $700,000 per year; 1994, $658,000; 1995, $592,000; 1996 through 2000, $550,000 per year; and 2001, $623,625. A total of $7,004,625 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In fiscal year 1991, $10,170 was provided by state appropriations. In fiscal year 1992, $29,158 was also provided by state appropriations and self-generated funds. In fiscal year 1993, $30,084 was provided by state appropriations. In fiscal year 1994, $161,628 was provided by state funds, $3,189 provided by industry, and

$9,020 provided by other sources, totaling $173,837. In fiscal year 1995, $370,618 was provided by state appropriations, $1,496 provided by self-generated funds, $1,581 provided by industry, and $5,970 was provided in other non-Federal funds totaling $379,665 for fiscal year 1995. In fiscal year 1996, $285,042 was provided by state appropriation, $4,742 provided by industry, $14,247 provided from other non-Federal funds totaling $304,031 for 1996. In fiscal year 1997, $462,012 was provided by state appropriations, $8,080 was provided by self-generated funds, $8,217 was provided by industry, and $103,063 was provided from other non-Federal funds totaling $581,372 for fiscal year 1997. In fiscal year 1999, $984,251 was provided through state appropriations, $40,198 provided through self-generated funds, $13,010 provided by industry, and $87,942 from other non-Federal sources for a total of $1,125,401. In fiscal year 2000, $368,664 in state appropriations, $93,408 in other non-Federal funds, and $31,886 in industry funds for a total of $493,958 were provided for this grant

Question. Where is this work being carried out?

Answer. The work is conducted on the campus of North Dakota State University and at six different research extension centers in North Dakota. Work is also done in eastern Montana.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Fiscal year 2001 is the twelfth year of activity under this grant. The primary emphasis has been to find new crops with non-food uses and create value added products. The original objectives have been met, however, new opportunities have become known as previous research has identified new crop alternatives and innovative crop utilization ideas.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The cognizant staff scientist annually reviews the project and has determined that the research is conducted in accordance with the mission of this agency.

ALTERNATIVE CROPS FOR ARID LANDS, TEXAS

Question. Please provide a description of the research that has been funded under the Alternative Crops for Arid Lands, Texas grant.

Answer. This grant is to develop the two most abundant plants in the southwestern U.S., i.e. mesquite and cactus, into commercial crops through a combination of applied research and market development. In Texas, New Mexico, Arizona and California these plants occupy 72 million acres. This grant is peer reviewed internally and external reviewers include a private sector cactus breeder, the Texas Agricultural Extension Service, and a specialist in wood products marketing.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this goal?

Answer. The semi-arid regions of the U.S. that border with Mexico in Texas, New Mexico, Arizona, and California have some of the highest unemployment rates, lowest economic returns per acre, and lowest incomes in the U.S. The two most abundant plant species in this region are prickly pear cactus and mesquite. By working with Mexican researchers, this grant will help to stabilize the economic situation of rural poor in Mexico and the U.S. There are few crops capable of being grown sustainably in these regions. Due to the nitrogen fixing capability, and thus soil improving properties of mesquite and high water use efficiency of cactus, these plants contribute to sustainable agriculture and will diversify southwestern agriculture. This research group is the only center in the U.S. developing these plants as crops.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to dramatically improve the economic returns and year-to-year economic stability in the southwestern United States from arid and semi-arid lands. For cactus, the goal has been to provide improved varieties that can be harvested and processed into food and forage. Over 50 hybridizations were conducted between the top producing fruit accessions of cactus. Reciprocal hybridizations for 14 different accessions were successfully harvested and viable seed recovered. Germination trials have yielded more than 100 seedlings from which selected hybrids will be transferred to the field in the spring of 2001. Plots planted in late summer of 1999 are growing well with few plant deaths. Data on pads and number of fruit have been analyzed and will be combined with data collected in the spring of 2001. Selected cuttings from different accessions have been planted and subjected to freezing temperatures to evaluate freeze damage. Long term storage of pollen is very important, and storage trials are underway to determine optimum conditions. For mes-

quite, the goal is to increase its value as a result of better tree form. Germination and survival rates for 20 sources for superior trees in Texas were evaluated. Seedling height prior to transplanting has been found to be an important factor that affects survival rate. A meeting was held with a ranch owner in Freer, Texas, to evaluate mesquite trees for possible inclusion in a mesquite productivity study. The Eighteenth Annual Los Amigos del Mesquite Conference, sponsored by the Wray Charitable Trust was planned and carried out in the fall of 2000. The conference topic was "The Mesquite Bean and Its Utilization". Subjects such as mesquite bean flour and cattle feed as well as mesquite tree management that fosters soil conservation, proper pruning procedures for mesquite trees, and long term development of mesquite products were presented. Ten mesquite-related companies were represented at the conference.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994 and the appropriation for fiscal year 1994 was $94,000. For fiscal years 1995 through 1997 the appropriation was $85,000 per year; for fiscal years 1999 through 2000 was $100,000 per year; and for fiscal year 2001 is $99,780. A total of $648,780 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In fiscal year 1994, $43,215 was provided by the Texas legislature.

Question. Where is the work being carried out?

Answer. The work is being conducted by Texas A&M University, Kingsville, Texas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. For cactus, the original objective of the project was to provide improved varieties of cactus for fruit and napolitos marketing. Researchers anticipate that improved varieties should be available in two to four years. Currently, a small Texas and California cactus industry exists, and more economic growth can be achieved with the introduction of new varieties. For mesquite, the objective to improve the economic return largely has been met, since markets for mesquite lumber, flooring, furniture, and barbecue work products continue to improve. Other related objectives such as growth and form, genetic screening, and breeding will take longer to complete.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is in accordance with the mission of the agency.

ALTERNATIVE NUTRIENT MANAGEMENT, VERMONT

Question. Please provide a description of the research that has been funded under the Alternative Nutrient Management, Vermont grant.

Answer. In January 2001, the agency requested the University of Vermont to submit a grant proposal which will be completed soon. The project will investigate the effectiveness of constructed wetlands to treat farm runoff and manure to protect adjacent water sources.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. Developing more cost effective and efficient strategies to protect groundwater from pollution with farmyard waste is a local, regional, and national priority.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to use a constructed wetland comprised of different plant ecosystems to study how the plant biomass, the species or combination of plants, and the harvesting of plants and climatic conditions modify the effectiveness of nutrient removal from the farm effluent introduced into the system. The research is yet to commence although substantial planning and literature evaluation has been conducted.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 with an appropriation of $189,582.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This project will be cooperative with colleagues across the University, in Natural Resource Conservation Service, and in the Vermont Department of Agriculture. We do not know the precise levels of non-Federal funds that will be expended over the course of the project. We expect there will be substantial additional investments of state and university funds in salaries, support costs, and equipment expenditures.

Question. Where is the work being carried out?

Answer. Research will be conducted at the University of Vermont's Paul Miller Research Center.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This will be a 1-year project completed at the end of 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Since this is a new project, no agency evaluation has occurred.

ALTERNATIVE SALMON PRODUCTS, ALASKA

Question. Please provide a description of the research that has been funded under the Alternative Salmon Products, Alaska grant.

Answer. The overall goal of the Alternative Salmon Products Program for fiscal year 2000 was to develop market-desired salmon products using wild-caught salmon. The project assisted Alaska salmon producers in sustaining current and entering new markets. The main approach has been a competitive grant process for proposals on marketing of salmon products. In addition, an assessment of the Hong Kong smoked salmon trade was to be performed. According to the Principal Investigator, a call for proposals on the Marketing Mini-grants has been put out and the proposals will be judged. Proposals for fiscal year 2001 have been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Alaska salmon industry has lost considerable market share worldwide to farmed salmon production. In 1994, the farmed salmon market share surpassed Alaska's market share of the world's salmon supply and has continued to climb every year since. In 1997, Norwegian farmed salmon production exceeded Alaska wild stock harvests. Also in 1997, Chilean Coho salmon exports to Japan exceeded North American sockeye salmon exports to Japan. Japan has traditionally been Alaska's strongest and most lucrative export market. The Alaska salmon industry is a multi-state industry. Though the product is harvested in Alaska, the benefits are shared with fishermen residents in Washington State, Oregon, California, and throughout the nation.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The broad research goal of the Alternative Salmon Product Program is the development of market-desired salmon products using wild-caught salmon. In 1998 and continuing, researchers involved in the Pinbone Removal Machine Project are addressing the problem of deboning wild-caught fish in appropriate volumes, so that they can be marketed as frozen skinless, boneless fillet portions rather than simply as headed and gutted frozen fish or canned salmon. New products such as this would allow Alaskan wild caught salmon to compete more effectively with pen-reared salmon. The researchers have designed, built and tested four prototype pinbone removal machines, making sequential improvements in processing plants during the 2000 salmon season.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The initial funding for the Alternative Salmon Products program was $400,000 per year on fiscal years 1998 and 1999; fiscal year 2000, $552,500; and fiscal year 2001, $643,581. A total of $1,996,081 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Industry will contribute approximately $50,000 based on estimated cost of $50,000 per plant for commercial testing of beta prototype.

Question. Where is this work being carried out?

Answer. The work will be conducted at the University of Alaska, Fairbanks, the University of Alaska Fishery Industrial Technology Center in Kodiak Alaska, in Hong Kong, and in a variety of salmon product processing plants across Alaska.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The Pinbone Machine Project under the Alternative Salmon Product Program, including original and related objectives, will be completed with fiscal year 2000 funding. Other projects, like the Alternative Salmon Management Program will take about two years to complete the objective.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The proposal received in support of the fiscal year 2000 appropriation was reviewed for merit on September 14, 2000. The project's thrust is to assist Alaska Salmon producers to sustain market penetration by entering new markets with value added products. The main approach was to award competitive grant proposals on marketing Salmon products. Assessment of trade in Hong Kong smoked Salmon was also part of the proposal.

ANIMAL SCIENCE FOOD SAFETY CONSORTIUM

Question. Please provide a description of the research that has been funded under the Animal Science Food Safety Consortium program.

Answer. The Food Safety Consortium is focused on accomplishing six objectives: (1) to develop techniques for rapid detection of infectious agents and toxins in meat and poultry; (2) to develop a statistical approach for evaluating potential health risks; (3) to identify effective intervention points to control microbiological or chemical hazards; (4) to develop monitoring methodologies to detect these hazards in the distribution chain; (5) to develop technologies to complement the development of Hazard Analysis and Critical Control Point—HACCP—programs by USDA; and (6) to estimate costs and benefits associated with intervention alternatives.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local need for this research?

Answer. A safer meat product food supply would reduce the economic losses related to days away from work, medical treatment, and even human suffering and death as a result of foodborne illnesses. The costs are estimated at over $5 billion a year. The Consortium's participation in technology transfer to health departments and trade associations are helping on a regional and local level to educate consumers and food handlers on safe handling procedures. Scientific-based testing that is being developed will help provide food that will be accepted in international markets and increase exports and sustainable rural economies at home. On a regional and local level, each of the institutions are involved in HACCP program training for industry and are holding seminars for industry to discuss food safety research findings. In addition, the University of Arkansas is teaching food safe programs to children in state elementary schools.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The original goal was to bring together research and expertise of institutions in three states in order to best address the areas of poultry, beef, and pork meat production from the farm to the consumer's table. In coordination with each other, they seek to develop detection, monitoring, and prevention techniques to control or prevent the presence of infectious agents and chemical toxins in the food supply.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $1,400,000; fiscal year 1990, $1,678,000; fiscal year 1991, $1,845,000; fiscal years 1992–1993, $1,942,000; fiscal year 1994, $1,825,000; fiscal years 1995–1996, $1,743,000 each year; fiscal year 1997, $1,690,000; fiscal years 1998–2000, $1,521,000 each year; and fiscal year 2001, $1,631,403. A total of $22,002,403 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $1,611,947 in 1991; $1,639,050 in 1992; $1,726,153 in 1993; $2,304,223 in 1994; $2,075,145 in 1995; $2,796,097 in 1996; $2,600,545 in 1997; $1,850,899 in 1998; $3,421,866 in 1999. Thus, from 1991 through 1999 a total of $20,025,925 in non-Federal funds was provided.

Question. Where is this work being carried out?

Answer. Research is being conducted at Iowa State University, Kansas State University, University of Arkansas at Fayetteville, University of Arkansas for Medical Sciences at Little Rock, and Arkansas Children's Hospital.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The research projects from the Consortium continue to evolve and build on the original objectives first set out in 1989. The principal investigators have developed patented tests that have significantly reduced the time necessary to detect pathogens in the processing plants.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. There has never been a formal evaluation of the Food Safety Consortium but instead an annual conference is organized at which a designated representative from CSREES attends. Along with other invited agency representatives, such as the Food Safety and Inspection Service, the Agricultural Research Service, and the Economic Research Service, CSREES participates in a steering committee meeting which critiques projects and discusses research priorities. Peer reviews are conducted by expert scientists who are not members of the Consortium, to determine those projects selected for funding.

APPLE FIRE BLIGHT, MICHIGAN AND NEW YORK

Question. Please provide a description of the research that has been funded under the Controlling Fire Blight Disease of Apple Trees, Michigan and New York grant.

Answer. This project studies fire blight in apple trees, which is a bacterial disease that can kill spurs, branches, and sometimes entire trees. The management of this disease is difficult because only one antibiotic treatment is available. The objectives of this research are to develop fire blight resistance varieties, evaluate biological and chemical control methodologies for disease management, and develop an education and extension component for disease management.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Fire blight is a destructive bacterial disease of apple trees throughout the U.S. that can kill the trees. In the northeast, the disease is more prevalent because of humid weather conditions.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals of this research are to develop transgenic apple trees through various molecular technologies, to develop new approaches to antibiotic treatments of disease, to develop an early screening technique for tree sensitivity to the disease, to evaluate biological and cultural controls, and to develop and improve education and extension components of disease management. The last objective involves using disease prediction models.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Fiscal year 1997 was the first year funds were appropriated for this grant at $325,000. For fiscal years 1998 through 2000, $500,000 per year, and $498,900 in fiscal year 2001. A total of $2,323,900 has been appropriated.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds for 1997 were $40,127 for Michigan and $104,166 for New York. The funds for 1998 were $40,071 from Michigan and $104,166 from New York. The state appropriated funds for 1999 were $49,771 for Michigan and $106,689 from New York. The state appropriated funds for 2000 were $43,200 for New York and $46,178 for Michigan.

Question. Where is this work being carried out?

Answer. Research is being conducted at Michigan State University and Cornell University, New York Experiment Station.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated date of completion for the original objectives was 2000. The objectives have not been met. It is estimated by the researchers that three to five years are needed to complete this project.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last merit review of this project was in January 1999. A site visit was made to Michigan State University in March 1999 and to Cornell University, Geneva and Ithaca, New York in April 1999. Both principal investigators were visited as well as the field sites. Surveys of established apple orchards and new planting in New York showed losses of up to 255 trees due to fire blight infections of rootstocks. Several new materials for control of fire blight on susceptible varieties gave promising results in field trails. Improved techniques to transfer genes into apples and to obtain flowering on the transgenic trees have been developed so that transgenic fruits can be examined within two years. In research in Michigan, a total of 50 phage isolated from fire blight were characterized with the potential of using these to control the disease. A new plant growth regulator that controls vegetative growth in apple appeared to make trees less susceptible to fire blight. A detailed study of the role of the hrpA gene in fire blight virulence has been completed with a better understanding of its involvement in virulence in the disease.

AQUACULTURE, ARKANSAS

Question. Please provide a description of the research that will be funded under the Aquaculture, Arkansas project.

Answer. CSREES has requested that the University of Arkansas at Pine Bluff submit a grant proposal for this new research activity that will focus on maximizing production efficiency of farm-raised catfish under changing market conditions and offshore competition.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This is a new project to be initiated in fiscal year 2001. The agency has requested the university submit a research proposal which has not been received to date. The principal researcher indicates that the U.S. farm-raised channel catfish industry is facing increased competition from imported catfish, increasing costs due to expansion of regulations, increasing labor costs, and changing market demands. Gains in productivity will be required for the industry to continue growing to provide employment opportunities and serve as a catalyst for economic growth in impoverished rural areas of the U.S.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new research grant to be funded in fiscal year 2001.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $237,476.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates that significant non-Federal funding will be provided in fiscal year 2001 primarily from state sources to cover the salaries of the principal investigators. A total of $85,000 is anticipated for fiscal year 2001 consisting of $46,600 from state appropriations, $20,000 from the Arkansas Catfish Checkoff Fund, $11,000 from private sector in-kind contributions, and $7,400 from facility use.

Question. Where is this work being carried out?

Answer. The research will be conducted at the University of Arkansas at Pine Bluff.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is the first year of this project and the agency is currently awaiting submission of the research proposal.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the progress of this new project on an annual basis. The university will be required to submit an accomplishment report each year when the new proposal is submitted to CSREES for funding. Since this is the first year of the program, CSREES will conduct an external peer review of the proposal. The 2001 CSREES review will be completed within three weeks of submission of the proposal. The researchers will be requested to develop a research proposal consistent with the National Science and Technology Council's Strategic Plan for Aquaculture Research and Development.

AQUACULTURE, FLORIDA

Question. Please provide a description of the research that has been funded under the Aquaculture, Florida grant.

Answer. CSREES is in the process of reviewing the submitted proposal. The research will focus on developing procedures for hatchery seed production of two potential bivalve species applying dry tempering methods to increase the survival of Florida culture clams in refrigerated storage using molecular genetic techniques to examine hard clam stock diversity, determining the suitability of a freshwater clam for use in tertiary treatment of agricultural wastewater, and evaluating the efficacy of best management practices in pollutant reduction associated with food and baitfish farms.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This is the first year of this new grant proposal. The proposed research addresses critical local needs that have been identified by the Shellfish Aquaculture Advisory Committee and the Florida Food and Bait Aquaculture Advisory Committee. The research findings and results will also be of interest and applicable to other similar aquaculture operations and conditions in the southern region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to improve and strengthen aquaculture in Florida by enhancing the existing hard clam sector, developing new commercial species, and developing improved and practical pollutant reduction practices through interrelated research activities.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $445,019.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates that significant non-Federal funding will be provided in fiscal year 2001 primarily from state sources to cover the salaries of the principal investigators and operating expenses for the laboratory. As the program develops, additional non-Federal funding is expected.

Question. Where is this work being carried out?

Answer. The location of the work site(s) will be included in the new grant proposal when it is received by CSREES for processing to award the grant funds.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is a new research grant to be funded in fiscal year 2001. The agency has not received a grant proposal to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the progress of this new project on an annual basis. The university will be required to submit an accomplishment report each year when the new proposal is submitted to CSREES for funding. Since this is the first year of the program, CSREES will conduct an external peer review of the proposal. The 2001 CSREES review will be completed within three weeks of submission of the proposal. The researchers will be requested to develop a research proposal consistent with the National Science and Technology Council's Strategic Plan for Aquaculture Research and Development.

AQUACULTURE, LOUISIANA

Question. Please provide a description of the research that has been funded under the Aquaculture, Louisiana grant.

Answer. The agency requested that the university submit a grant proposal that has not been received to date. Research under this program has addressed critical problems in the commercial aquaculture industry including crawfish, catfish, striped bass, and other emerging species. The university has completed studies in the area of fish nutrition, fish health, fish genetics, production management strategies, alternative species, seafood processing, product quality, product safety, and broodstock development.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigator indicates that information generated from the funded research will have broad application for local, regional, and national aqua-

culture industries. The researchers indicate that there is a need to improve production efficiency for a number of important aquaculture species in order to enhance the profitability and sustainability of the aquaculture industry in the region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was to provide science-based information through a basic and applied research base that specifically addressed the needs of the aquaculture industry in Louisiana and the southern region. Research funded by this program has led to improved feed formulations, production of fish vaccines, improved extraction and detection methods for off-flavor compounds, improved product quality and safety, procedures for the production of genetic maps for channel catfish, evaluation of growth hormones in channel catfish production, development of cryopreservation techniques for germplasm preservation, reduction of phosphorus in aquaculture effluents, improved forage-based systems for crawfish, as well as improved production, harvesting, and processing technologies for a number of important species. Research continues to be directed at important opportunities to enhance production efficiency and commercial viability of sustainable aquaculture systems in Louisiana and the southern region.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Research to be conducted under this program continues efforts initiated under the Aquaculture general program in fiscal years 1988 through 1991. The work supported by this specific program began in fiscal year 1992 and the appropriation for fiscal years 1992–1993 was $390,000 per year, $367,000 in fiscal year 1994, $330,000 each year in fiscal years 1995–2000, and $329,274 in fiscal year 2001 for a total of $3,456,274.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates that non-Federal funding for this program is as follows: in fiscal year 1991, $310,051; in fiscal year 1992, $266,857; in fiscal year 1993, $249,320; in fiscal year 1994, $188,816; in fiscal year 1995, $159,810; in fiscal year 1996, $150,104; in fiscal year 1997, $158,808; in fiscal years 1998 and 1999, $110,101; and in fiscal year 2000, $447,269. The primary source of this funding was from state sources and self-generated funds with minor contributions from industry and other non-Federal sources.

Question. Where is this work being carried out?

Answer. Research is being conducted at Louisiana State University.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original specific objectives were to be completed in 1990. These specific research objectives have been met, however, research required for long-term growth of the aquaculture industry in Louisiana and the southern region continues to be addressed. The specific research outlined in the current proposal will be completed in fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Grants are awarded to scientists within the university on a competitive peer-review basis. The entire proposal is reviewed by agency Program Managers on an annual basis. The 2000 agency review determined that the proposal was well written with objectives clearly stated. The research approach, methodology, timetable, and experimental design were sound and addressed important opportunities for the commercial culture of catfish, crawfish, and tilapia in the southern region. The feasibility of attaining objectives during the life of the proposed research was excellent, and the research team was well-qualified. The proposed research built on work initiated in previous years, and progress on previous work was well documented. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Councils—NSTC—Aquaculture Research and Development Strategic Plan.

AQUACULTURE RESEARCH, STONEVILLE, MISSISSIPPI

Question. Please provide a description of the research funded under the Aquaculture Research Stoneville, Mississippi grant.

Answer. The agency has requested that the university submit a grant proposal that has yet to be received. Research under this program has addressed the critical needs of the farm-raised channel catfish industry including practical feeding and nu-

trition strategies, fish health and water quality management, and acoustical in-pond monitoring technologies.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigator indicates that results from this project continue to have a significant impact on the competitiveness of a significant segment of the domestic aquaculture industry, namely channel catfish. The farmed-raised channel catfish industry accounts for over 70 percent of total domestic aquaculture production. Research funded by this program is directed towards improving feeds and feeding strategies, enhancing aquatic animal health, and acoustical monitoring and inventory of catfish in pond production systems. These findings will have long-term impacts on the economic viability of the farm-raised channel catfish industries in the southern region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to address the research needs of the farm-raised channel catfish industry in the areas of water quality and nutrition. Results from this research have led to improved water quality management practices in commercial catfish ponds and improved diet formulation and feeding strategies that have been widely adopted by the industry. Research findings from this program have had a direct impact on reducing the cost of catfish feed without reducing performance and productivity. Researchers have demonstrated that fish meal levels can be significantly reduced in commercial catfish diets. Fish health monitoring efforts are also expected to enhance production efficiency. Additionally, sonar hardware and software technologies are being refined and evaluated for use in stock assessment in channel catfish ponds.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal years 1980–1981, $150,000 per year; fiscal year 1982, $240,000; fiscal years 1983–1984, $270,000 per year; fiscal year 1985, $420,000; fiscal years 1986–87, $400,000 per year; fiscal year 1988, $500,000; fiscal year 1989, $588,000; fiscal year 1990, $581,000; fiscal year 1991, $600,000; fiscal years 1992–1993, $700,000 per year; fiscal year 1994, $658,000; fiscal years 1995–1997, $592,000 each year; fiscal year 1998, $642,000; $592,000 per year in fiscal years 1999 through 2000; and $590,698 in fiscal year 2001. A total of $10,819,698 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates a total of $2,101,508 in non-Federal funding to support this research for fiscal years 1991–1994; $1,128,451 in fiscal year 1995; $601,473 in fiscal year 1996; $463,990 in fiscal year 1997; $464,266 in year 1998; $740,000 in fiscal year 1999; and $770,000 in fiscal year 2000. Non-Federal funding is primarily provided by state funds. Additional funding is also provided from product sales, industry contributions, and other miscellaneous sources.

Question. Where is this work being carried out?

Answer. The grants have been awarded to the Mississippi State University Agricultural and Forestry Experiment Station. All nutrition research is conducted at the Delta Branch Experiment Station, Stoneville, Mississippi. The acoustical research is conducted in cooperation with the National Center for Physical Acoustics at the University of Mississippi.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the specific original research objectives was 1984. The original objectives have been met, however, projects funded by subsequent grants continue to address the critical research needs of the channel catfish industry. The specific research outlined in the current proposal will be completed in 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency Program Managers and Program Specialist evaluate the progress of this project on an annual basis. The agency's fiscal year 2000 evaluation concluded that the proposal was well written, the objectives were clearly stated, and the experimental design and scientific approach were sound. The researchers were leading authorities in this area of research and were well aware of the complexity of the industry and the implications of their research. Significant progress had been reported on research objectives under this program, and a strong linkage between the researchers and the catfish industry has led to the accelerated adoption of re-

search findings within the industry. The research from this program continues to have a tremendous impact on the industry by improving production efficiency in commercial catfish ponds through improved feeds and feeding strategies. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Councils—NSTC—Aquaculture Research and Development Strategic Plan.

AQUACULTURE, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Aquaculture, North Carolina grant.

Answer. The agency has requested that the university submit a grant proposal that has yet to be received. The researchers indicate that the funding will be used to support and expand research efforts in areas with species that are important to the aquaculture industry in North Carolina and the U.S. including hybrid striped bass, tilapia, flounder, and catfish.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigator indicates that the proposed research will impact aquaculture production technology for several species of cultured finfish with regional and national implications that could significantly impact the economic viability of coastal and rural communities across the nation.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the project was targeted at resolving specific impediments to aquaculture efficiency, profitability, and growth in the Mid-Atlantic region. Research has led to improved vaccine administration methods for rainbow trout, improved broodstock maintenance methodologies for striped bass, and reduction of environmental impacts by improving system technologies and feeding strategies in hybrid striped bass production ponds. Under the fiscal year 2000 grant, research was initiated to improve technology for commercial production of the summer flounder. Studies have been initiated to enhance reproductive efficiency, to develop faster-growing all female populations, and to evaluate biochemical growth regulating factors in summer flounder.

Question. How long has the work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997 and the appropriation for fiscal year 1997 was $150,000. The project was not funded in fiscal years 1998 and 1999. The fiscal year 2000 appropriation was $255,000 and for fiscal year 2001, $299,340 is appropriated. A total of $704,340 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university reported a total of $94,000 of non-Federal funding to support research carried out under this program for fiscal year 1997. The university estimates non-Federal funding of $200,000 for fiscal year 2000, and $221,000 for fiscal year 2001. The primary source of the non-Federal funding is from state sources.

Question. Where is the work being carried out?

Answer. Research is being conducted at North Carolina State University and their aquaculture research field station.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This program was initiated in fiscal year 1997 and was funded for one year. The original objectives were completed. Funding was not appropriated in fiscal years 1998 and 1999. The anticipated completion date for the expanded objectives for the fiscal year 2000 proposal is July 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's fiscal year 2000 review indicated that the proposal was well written, objectives were clearly stated, and the methodology and experimental design were sound. The research team is well qualified and has the appropriate background. Facilities for the project are excellent. The research timetable presented was ambitious for a 12-month period. The proposed research is consistent with the goals and objectives of the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

AQUACULTURE, VIRGINIA

Question. Please provide a description of the research that has been funded under the Aquaculture, Virginia grant.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. The proposed research will continue to evaluate culture methods and the economic viability of closed recirculating aquaculture systems. Fish culture technologies and waste management will be refined, off-flavors and product quality will be evaluated, and marketing strategies will developed for these systems.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The investigators indicate that there is a need to develop a highly-competitive, sustainable aquaculture industry that uses closed recirculating system technologies in order to meet consumer demand for cultivated aquatic foods that are of high quality, safe, competitively priced, nutritious, and are produced in an environmentally responsible manner. Research refining culture system technologies has the potential to significantly enhance domestic aquaculture production.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to identify commercially-viable aquaculture species utilizing recirculating aquaculture system technology, verifying production and culture management protocols utilizing this technology, analyze production budgets providing information upon which to build business plans, investigate marketing development strategies, and prepare scientific, technical, and popular publications to disseminate the results of this research. Research was initiated in fiscal year 1999. Site selection and development has been completed and production trials are underway.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This was a new research initiative in fiscal year 1999 and $100,000 per year was appropriated for fiscal years 1999 through 2000, and $99,780 in fiscal year 2001. The total appropriation for this grant is $299,780.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates a minimum of $90,000 of non-Federal funding in fiscal year 1999; $34,853 in fiscal year 2000; and $158,000 in fiscal year 2001. This support is provided primarily from state sources. In addition the university reports substantial in-kind support from research cooperators.

Question. Where is this work being carried out?

Answer. The research will be conducted through the Virginia Agricultural Experiment Station, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, and at the Southwest Virginia Aquaculture Center in collaboration with private aquaculture firms in Virginia.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This original proposal outlined a three year project. The fiscal year 1999 grant provided funding for the first year of the project and the fiscal year 2000 grant provided funding for the second year. The anticipated completion date for the fiscal year 2000 component of the project is 2001. It is anticipated that the fiscal year 2001 grant will provide funding for the third year of the proposed project with minor modifications.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency evaluates the progress of this project on an annual basis. The fiscal year 2000 agency evaluation concluded that objectives described in the proposal were relevant to state, regional, and national goals. The objectives, methodologies, and experimental design were sound. Personnel and facilities were appropriate for the stated objectives, and objectives should be attained within budgetary and time constraints. The proposed research is consistent with goals and needs of the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

AQUACULTURE, WASHINGTON

Question. Please provide a description of the research that has been funded under the Aquaculture, Washington grant.

Answer. The agency has requested that the university submit a grant proposal that has yet to be received. This is a new program that will be initiated in fiscal

year 2001. The university indicates that the research will address the critical needs of the trout farming industry in the U.S. including the hatchery sector of the industry which provides high quality trout eggs for international markets.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The researchers indicate that the project will focus on the current constraints to the expansion of the industry that include threats from foreign and domestic pathogens which could impact both foreign and domestic markets. Research efforts should lead to improved production efficiency and enhanced aquatic animal health management in the trout farming industry with regional and national implications. The researchers indicate that the research goals and objectives are consistent with those outlined in the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The researchers indicate that original goals will be to improve and expand trout aquaculture at the regional and national level through improved animal health management, improved water quality and effluent management, and improved product quality and new product development.

Question. How long has the work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates a total of $148,323 non-Federal funding to support this project in fiscal year 2001 primarily from state sources. The university also reports significant in-kind support from the industry.

Question. Where is the work being carried out?

Answer. Research is being conducted at Washington State University in cooperation with industry.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This project will be initiated in fiscal year 2001 with the anticipated completion date for the original objectives in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will conduct the initial review of this proposal when it is submitted for funding. The proposal may be externally peer reviewed as part of the evaluation.

AQUACULTURE PRODUCT AND MARKETING DEVELOPMENT, WEST VIRGINIA

Question. Please provide a description of the research that has been funded under the Aquaculture Product and Marketing Development, West Virginia, grant.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. The research program is aimed at developing a viable and competitive aquaculture industry in West Virginia and the Appalachian region. The specific objectives of the project address state and regional needs by improving the short-term viability and long-term sustainability of aquaculture production and processing firms in West Virginia and similar areas of Appalachia. Specific research strategies include the development of marketing strategies for trout producers and processors, increasing the economic efficiency and profitability of trout-based enterprises, improving the consistency and quality of fresh trout fillets and value-added smoked trout products, utilization of impaired mine waters for aquaculture, and implementation of a technology transfer component to disseminate information generated by this project to the aquaculture industry in Appalachia.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The researchers indicate that there is a regional and national need to evaluate marketing and product development for small scale aquaculture systems in rural communities. In addition, there is a need to improve the efficiency of these systems and to evaluate the use of impaired mine waters for aquaculture.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop sound marketing strategies for aquaculture products, improve the economic efficiency of aquaculture pro-

duction systems, and improve the quality and variety of aquaculture products in West Virginia and the Appalachian region. Marketing surveys have been conducted for fee fishing operations and food fish production systems. Researchers have developed baseline information on the economics of production and processing relevant to small-scale facilities. Studies to evaluate the quality of aquaculture products from these small-scale systems have been implemented. Efforts to evaluate impaired mine waters for aquaculture production have recently been initiated.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. A grant has been awarded from funds appropriated as follows: fiscal year 1998, $600,000; $750,000 for each of fiscal years 1999 through 2000; and $748,350 in fiscal year 2001. A total of $2,848,350 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates total non-Federal funding available for this program at $440,000 for fiscal years 1998 through 2001. The primary source of this funding is from state sources.

Question. Where is this work being carried out?

Answer. The research is being conducted at the University of West Virginia in Morgantown and at off campus sites with a variety of cooperators.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initiated in fiscal year 1998. Research addressing the original objectives has essentially been completed and objectives have been met. Research initiated in fiscal years 1999 and 2000 is currently underway, and the anticipated completion date for these objectives is fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's fiscal year 2000 review indicated that the proposal was well written with objectives clearly stated. The research approach, methodology, timetable, and experimental design were sound. The research was relevant and addresses an important opportunity for the commercial aquaculture industry in West Virginia and throughout the Appalachian region. The feasibility of attaining objectives during the life of the proposed research was excellent. The research team was well qualified and has the appropriate background. Facilities are adequate to conduct the proposed research. The proposed research builds on work initiated in previous years and progress on previous work is well documented. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

ASPARAGUS TECHNOLOGY AND PRODUCTION, WASHINGTON

Question. Please provide a description of the research that has been funded under the Asparagus Technology and Production, Washington grant.

Answer. This is a new grant and the University of Washington is preparing a proposal for submission.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. The asparagus industry in Washington and other states is suffering severe economic loss due to competition from countries where labor and other costs of production are lower. This has necessitated producing more asparagus for the fresh market, developing advanced technologies, and delivering this information to the producers. This research will enable Washington asparagus producers to remain domestically and internationally competitive.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this grant is to develop new technologies for harvesting and packaging fresh asparagus that will reduce labor inputs and allow asparagus growers from the U.S. to remain competitive.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $224,505.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. In fiscal year 1999, $145,000 from an asparagus grower assessment was spent addressing these issues. In fiscal year 2000, $123,000 from an asparagus

grower assessment and $30,000 from the State of Washington was provided. In is anticipated that this level of non-Federal funding will continue throughout the life of the project.

Question. Where is this work being carried out?

Answer. The work is being carried out at Washington State University and Michigan State University.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. A peer review of the project will be undertaken by the performing institution and reported on annually. CSREES will conduct a thorough evaluation of the proposal once it is received.

BABCOCK INSTITUTE FOR INTERNATIONAL DAIRY RESEARCH AND DEVELOPMENT

Question. Please provide a description of the research that has been funded under the Babcock Institute, Wisconsin grant.

Answer. The Babcock Institute for International Dairy Research and Development was established with participation of the University of Wisconsin-Madison College of Agriculture and Life Sciences, School of Veterinary Medicine, and the Cooperative Extension Division. The objective of the Babcock Institute is to link the U.S. dairy industry with the dairy industry in the rest of the world through degree training, continuing education, technology transfer, adaptive research, scientific collaboration, and market analysis.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the need is to strengthen dairy industries around the world, to enhance international commercial and scientific collaborative opportunities for the U.S. dairy industry, and to draw upon global perspectives to build insight into the strategic planning of the U.S. dairy industry.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the Institute remains the linkage of the U.S. dairy industry with the rest of the world through training, continuing education and outreach, technology transfer, adaptive research, scientific collaboration, and market analysis. Initial efforts were focused on planning and staffing. An initial activity was, and continues to be, the development of multi-language extension materials about basic management techniques essential to optimize performance of U.S. dairy cattle overseas. This activity has grown to include manuals on Breeding and Genetics, Lactation and Milking, and Basic Dairy Farm Financial Management published in English, Spanish, French, Russian, and Chinese. Research on potential implications of the North American Free Trade Agreement—NAFTA—and the General Agreement on Tariffs and Trade—GATT—on the U.S. dairy industry was completed. A technical workshop on dairy grazing in New Zealand and the Midwest was organized and held in Madison, Wisconsin, during the fall of 1993. A technical workshop on Nutrient Management, Manure and the Dairy Industry—European Perspectives and Wisconsin's Challenges—was held in Madison, Wisconsin, during September 1994. A round table was held in January 1995 addressing "World Dairy Markets in the Post-GATT Era". Sponsored the Great Lakes Dairy Sheep Symposium in 1995 and 1996. Created a World Wide Web site in 1996 for distribution of Babcock Institute technical dairy fact sheets in four languages. The first International Dairy Short Course for a group of producers and technicians from Argentina has been organized on the University of Wisconsin Campus. Scientists' are being supported in collaborative research with New Zealand primarily to gain a better understanding of grazing systems as related to dairy management. An analysis of the impact of changes in European dairy policies has been completed. The Institute sponsored a Minnesota-Wisconsin Dairy Policy Conference to provide insights into current agricultural programs and policy issues in the dairy sector of the U.S. economy. During the past year more than 30 publications have appeared as a result of funding through the Babcock Institute. These report the results of research collaboration and scientific exchange, world market and trade analysis, or are for use in international education and training programs.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal years 1992 and 1993, $75,000 per year; fiscal year 1994, $250,000; fiscal years 1995–1998, $312,000 per year; fiscal year 1999, $400,000; fiscal year 2000, $510,000; and fiscal year 2001, $598,680. A total of $3,156,680 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. During fiscal year 1992, $13,145 of State funds were used to support this program and $19,745 of State funds in fiscal year 1993 for a total of $32,890 during the first two years of this research. Information is not available for fiscal years 1994–2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Wisconsin-Madison College of Agriculture and Life Sciences.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Babcock Institute's overarching mission has been to link the U.S. dairy industry and its trade potential with overseas dairy industries and markets. The original objectives of this project have remained consistent over the years. However, each year specific objectives were proposed to further the mission of the Institute and to build on previous accomplishments. The Institute has accomplished specific objectives each year in a timely manner. The Babcock Institute has remained true to its original objective of linking Wisconsin and the U.S. to dairy industries around the world. This objective remains increasingly important with continued development of international markets for dairy products and technologies. The university researchers anticipate that work currently in progress will be completed by September 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Babcock Institute undergoes two independent review processes each year. The first is done by a committee of university and industry representatives who review the annual research proposal and amend it prior to submission to the agency. The annual proposal is reviewed by agency technical staff prior to approval for fund release. In addition, the institute was included in a comprehensive review of the programs of the Department of Dairy Science at the University of Wisconsin in May 1995. The agency project officer has conducted two onsite reviews of the institute since its formation in 1992. The most recent review has found that the approach proposed by the researchers is appropriate and that the researchers are well qualified to perform the objectives as stated. The objectives of the proposal are within the mission of USDA and CSREES.

BEEF TECHNOLOGY TRANSFER, MISSOURI

Question. Please provide a description of the research that has been funded under the Beef Technology Transfer, Missouri grant.

Answer. This is a new project starting in fiscal year 2001. CSREES has requested the university to submit a grant proposal that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need for this research is for the adoption of technology to enhance vertically-aligned independent and corporate beef producers. Missouri is currently the second largest cow-calf producing state in the country. Accessing and the delivery of pre-harvest beef production technology is critical to the future success of beef producers in the state and region to optimize and improve beef quality and product value.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to enhance the information base available to beef producers involved in vertically-coordinated production systems to capture retail case value. Input from Missouri state commodity groups, implementation of beef advisory groups to the land-grant university representing producers throughout the state, and interaction with a new age producer cooperative that has begun with a business goal of marketing beef products and capturing retail case value are examples of recent, innovative accomplishments and university/producer interactions to date. Conceptually, this moves the paradigm from marketing of beef toward the concept of marketing specific and consumer-oriented beef products.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: approximately $350,000 state appropriations for fiscal year 2001.

Question. Where is this work being carried out?

Answer. Research and/or outreach will be conducted at the University of Missouri-Columbia and Lincoln University, Columbia, Missouri.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for original, additional, and related objectives is January 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project, and no evaluation has been conducted.

BIOBASED TECHNOLOGY, MICHIGAN

Question. Please provide a description of the research that has been funded under the Biobased Technology, Michigan grant.

Answer. This is a new grant, and funds will be used to develop and demonstrate new biobased polymers derived from agricultural resources. Polymer technology allows a highly-customizable material to be developed, such as medical plastics that can resist blood clot formation and infections. Funds will be used to develop and optimize the reaction and recovery processes to produce succinic acid.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Biobased technologies offer environmentally-preferable products and processing technologies that expand agricultural markets, create job opportunities in rural America.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This grant is new in fiscal year 2001. Prior research to justify this new work includes the development and scale-up of a fermentation process to produce succinic acid. Polymer research has been successful in changing the surface characteristics of medical devices to optimize performance such as resisting blood clot formation.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since this is a new grant, and a proposal has not yet been received, the source and amount of non-Federal funds for this research is unknown.

Question. Where is this work being carried out?

Answer. This work will be carried out at Michigan State University.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. This project is expected to be completed in three years.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Since this is a new grant, no evaluation has been conducted.

BIOINFORMATICS INITIATIVE, VIRGINIA

Question. Please provide a description of the research that has been funded under the Bioinformatics Initiative, Virginia grant.

Answer. This is a new special grant this year. The agency has requested the university to submit a grant proposal that has not yet been received. Preliminary communications with the principal researcher indicate that the project involves the development of software and database tools for comparative genomic analysis of model organisms such as Arabidopsis and Medicago relative to agriculturally-important crops such as tomato, potato, soybean, and others.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the principal researcher, the national need is that a considerable amount of Federal funding in plant genomics, with the exception of the rice genome, goes into model organisms of marginal agricultural importance such as Arabidopsis thaliana and Medicago truncatula. In order to make use of and leverage the Federal investment in the genomics of model organisms, the principal researcher states that it is necessary to build analytical information bridges between model genomes and agriculturally-important crops thereby enhancing technology transfer and economic development.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to advance critical information and communications technologies to support the analysis, manipulation, transmission, and end use of massive volumes of complex data being generated by contemporary genome research. The research is just getting started at the Virginia Polytechnic Institute and State University—VPISU.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated is $473,955.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Commonwealth of Virginia is providing operational support of $11.6 million for the 2000–2002 biennium for the Virginia Bioinformatics Institute. This amount is projected to increase to $12 million per year thereafter. VPISU is raising additional funds from the private sector of currently indeterminate amount for the Virginia Bioinformatics Institute.

Question. Where is this work being carried out?

Answer. The research is conducted at the Virginia Bioinformatics Institute, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion of additional or related objectives?

Answer. The anticipated completion date for the original objectives is September 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new special grant so it has not been evaluated yet. The agency will convene a merit review panel to evaluate the project upon receipt of a proposal for fiscal year 2001.

BIOMASS-BASED ENERGY RESEARCH, OKLAHOMA AND MISSISSIPPI

Question. Please provide a description of the research that has been funded under the Biomass-Based Energy Research, Oklahoma and Mississippi, grant.

Answer. CSREES has requested Oklahoma State University to submit a grant proposal that has not yet been received. The research will address conversion of biomass to ethanol. Through the establishment of the Oklahoma State and Mississippi State University Consortium, both universities are continuing the development of an ethanol gasification-bioconversion process that utilizes all of the biomass, including the lignin. While making it more cost efficient than other methods of ethanol production, this process utilizes all portions of biomass/feedstock material: grasses, crop residues, processing plant byproducts, and animal wastes.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Gasification-bioconversion provides an additional method for the development of ethanol while developing an alternative source of income in rural America.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This grant is new and the research will build upon existing expertise for utilizing crop residues, grasses, byproducts, and animal wastes.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $900,016.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since this is a new grant, and a proposal has not yet been received, the source and amount of non-Federal funds for this research is unknown.

Question. Where is this work being carried out?

Answer. This work will be carried out at Oklahoma State University and Mississippi State University.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. This project is expected to be completed in three years.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Since this is a new grant, no evaluation has been conducted.

BIOTECHNOLOGY, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Biotechnology, North Carolina grant.

Answer. This is a new special grant this year. The agency has requested the university to submit a grant proposal that has not yet been received. Preliminary communications with the institutional research administrator indicate that the project involves integrated biotechnological and genetic systems for enhanced forest productivity and health. Three areas of focus are: (1) genetic control of wood quality; (2) understanding and managing invasive species threats to the Fraser fir Christmas tree industry; and (3) development of propagation and deployment systems for elite oak genotypes.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the institutional research administrator, the need for this research is to enhance the competitiveness of the southern region in the production of industrial wood through genetic manipulation, to combat invasive pathogens of various ornamental trees, and to develop advanced techniques to capture genetic quality and replicate elite genotypes of hardwood forest species more efficiently.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to improve the competitiveness of southern U.S. wood production, to better manage invasive pathogens of ornamental trees, and to increase the distribution of elite hardwood trees in natural forest settings. The research is just getting underway at North Carolina State University.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Existing research and extension resources at North Carolina State University will be used to complement the Federal funding to carry out the proposed research. The forest industry is also expected to provide in-kind support in the form of field work and laboratory analyses. The exact amount of these contributions is not known at the present time.

Question. Where is this work being carried out?

Answer. The research is conducted at North Carolina State University and various sites in the southern Appalachians and elsewhere in the southeast U.S.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion of additional or related objectives?

Answer. The anticipated completion date for the original objectives, according to the institutional research administrator, is five years from project inception or approximately September 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new special grant so it has not been evaluated yet. The agency will convene a merit review panel to evaluate the project upon receipt of a proposal for fiscal year 2001.

BLOCKING ANHYDROUS METHAMPHETAMINE PRODUCTION, IOWA

Question. Please provide a description of the research that has been done under the Blocking Anhydrous Methamphetamine Production, Iowa grant.

Answer. Since starting in fiscal year 2000, research under this grant has examined several possible ways to chemically treat anhydrous ammonia intended for use

as an agricultural fertilizer so that it cannot be used for making the illegal drug methamphetamine.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The principal researcher has indicated that anhydrous ammonia, a commonly used agricultural fertilizer, can be used as an ingredient for making methamphetamine, an illegal and highly addictive drug which has posed a drug enforcement problem for Iowa and other Midwestern states in recent years.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to discover a chemical procedure that will render anhydrous ammonia ineffective in producing methamphetamine while keeping the anhydrous ammonia cost-efficient and effective as a fertilizer. Preliminary results suggest that certain metal salts in catalytic amounts can be effective at inactivating the drug-producing reaction.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This grant began in fiscal year 2000 with an appropriation of $212,500. The appropriation for fiscal year 2001 is $247,454 for a total of $459,954 appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. State funds in an amount of less than $5,000 were used to get the project started in fiscal year 1999. The state plans to cost-share the salaries of the principal investigator and a faculty collaborator in the amounts of $20,000 and $25,000 per year, respectively.

Question. Where is this work being carried out?

Answer. The research is being conducted in the Chemistry Department at Iowa State University, Ames, Iowa.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal investigator anticipates completing the original objectives of the project in two or three years. Additional or related objectives have not been specifically identified at this time.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was evaluated by a merit review panel convened by the agency on April 17, 2000. The panel recommended approval of the project pending receipt of supplemental information on administrative aspects of the project. The supplemental information was received, and the agency is satisfied that the program is being administered in compliance with the purpose of the grant. A merit review panel will be convened to re-evaluate the project upon receipt of a proposal for fiscal year 2001.

BOVINE TUBERCULOSIS, MICHIGAN

Question. Please provide a description of the research that has been conducted under the Bovine Tuberculosis, Michigan grant.

Answer. Bovine tuberculosis has been discovered to be present in free-ranging white-tailed deer and other wild life in Michigan. Eradication of the organism/disease from the state's deer population has been mandated. To address this issue this project will work on three objectives: (1) Determine the spatial relationships in transmission of bovine tuberculosis relating to feeding habits and factors in the habitat; (2) Determine the survivability of Mycobacterium bovis—M. bovis—in the environment; and (3) Determine other wild or domestic hosts for M. bovis transmission through epidemiological studies of naturally-infected hosts.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. The need for this research relates to the critical problem of bovine tuberculosis which has now been discovered to have spread into the white-tailed deer population in the state of Michigan. If information on the scope of this disease in deer and methodologies to monitor and reduce this problem is not available soon, it will present a serious threat to the largely tuberculosis-free national cattle herd.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research is to develop information about the spread of the bovine tuberculosis organism, M. bovis, within the deer population of

Michigan. Appropriate control programs cannot be devised until the epidemiologic information is available. The research team has reported that there is clear evidence that supplemental feeding of deer is associated with the prevalence of M. bovis in the deer population. The other component of the epidemiological study concerns the survival of the M. bovis organism in the environment. To date, all samples tested—approximately 190—from cattle farms, deer feeding sites, and captive cervid operations have been negative. Either oral or intratracheal inoculation of pigeons can result in shedding of the M. bovis organism in feces. However, only the intratracheal inoculation seems capable of producing active disease in the pigeons. The group has also initiated a literature search to identify relevant existing risk assessment models and initial work on a model has begun.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 with an appropriation of $170,000 and $324,285 in fiscal year 2001. The total amount appropriated is $494,285.

Question. What is the source and amount of non-Federal funds by fiscal year?

Answer. During fiscal year 2000, an additional $650,000 were provided from institutional—Michigan State University—and state funds—Departments of Agriculture and Natural Resources.

Question. Where is this work being performed?

Answer. The research is being performed in the College of Veterinary Medicine, Michigan State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is 2002. The research team has made good progress in identifying potential risk factors for the occurrence of tuberculosis in the wild deer herds as well as the studies on the potential role of pigeon as either active or passive carriers of the organism.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was initiated in fiscal year 2000, and due to the short time interval since it was started, no formal, onsite evaluation has been done at this time. The CSREES representative has had regular contact with personnel at Michigan State University to monitor this research effort.

BRUCELLOSIS VACCINE, MONTANA

Question. Please provide a description of the research that has been conducted under the Brucellosis Vaccine, Montana grant.

Answer. This project will study the immune response of bison to Brucella abortus antigen which has been incorporated into an organism that can be given orally to the animals. The objective is to produce an oral vaccine that can be easily administered to the bison without subjecting them to intensive handling procedures.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. The research project is intended to develop a strategy for vaccinating or immunizing cattle against brucellosis by incorporation of Brucella abortus genes into an orally-administered system. The need for this program relates to the problem associated with bison which are infected with Brucella abortus, the causative agent of brucellosis, within the Yellowstone bison herd.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the project was to accomplish incorporation of Brucella genes which code for specific antigens into Salmonella species of bacteria and test the efficacy of oral administration of this material in developing systemic immunity in bison. At this time, the research team has been successful in demonstrating that an immune response to a test organism does occur after oral exposure, and the antibodies do appear in secretions of the reproductive tract. They are currently testing the feasibility of intranasal vaccination as a possible alternative to the oral route and are also working on development of methods to permit incorporation of the lipopolysaccharide—LPS—from B. abortus into a potential vaccine product.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999. The appropriation for fiscal year 1999 was $150,000; for fiscal year 2000, $425,000; and for fiscal year 2001, $494,909 for a total of $1,069,909.

Question. What is the source and amount of non-Federal funds by fiscal year?

Answer. The source and amount of non-Federal funds for fiscal year 1999 was $67,401 from state sources, and $15,300 from state sources in fiscal year 2000. In addition, the university contributed unpaid overhead costs on the grant.

Question. Where is this work being performed?

Answer. The work is being performed in the Department of Veterinary and Molecular Biology at Montana State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives was May, 2002 or three years from the initiation of the project.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project began in the summer of 1999 and there has been no formal onsite evaluation as yet.

CENTER FOR ANIMAL HEALTH AND PRODUCTIVITY, PENNSYLVANIA

Question. Please provide a description of the research that has been funded under the Center for Animal Health and Productivity, Pennsylvania grant.

Answer. This research is designed to reduce nutrient transfer to the environment surrounding dairy farms in the Chesapeake Bay watershed. Progress to date includes the development of an individual dairy cow model which will predict absorbed amino acids and the loss of nitrogen in manure. This model has been developed into a user-friendly software so that trained farm advisors can evaluate herd nutrient management status while on a farm site. A whole farm model has been developed which integrates feeding and agronomic practices to predict utilization of nitrogen and farm surpluses. Using these tools, a survey of dairy farms in the region has been done to assess nitrogen status on dairy farms and potential management practices to reduce nitrogen excesses on dairy farms. Refinement of the model tools and research to refine estimates of the environmental fate of excess nitrogen from dairy farms is in progress. During the last two years, researchers have discovered that a significant fraction of total nitrogen in feed is lost from the animal housing facility in the form of ammonia volatilized to the atmosphere. Preliminary estimates indicate that as much as 50 percent of the nitrogen consumed by dairy cows is lost as ammonia to the atmosphere before waste ever reaches the manure storage and management system. Two on-site reviews of the program have been conducted by the CSREES Project Officer and a third is planned during 2001. The animal and farm models have been published in peer reviewed scientific journals. Scientists funded by the grant regularly participate in public meetings related to animal nutrient management systems.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that reducing non-point pollution of ground and surface water by nitrogen from intensive livestock production units are of concern nationally, and especially in sensitive ecosystems like the Chesapeake Bay. This research is designed to find alternative feeding, cropping, and management systems which will reduce net nutrient flux on Pennsylvania dairy farms to near zero.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research remains the development of whole farm management systems which will reduce nutrient losses from the farm to the environment external from the farm to near zero. To date the researchers have developed their own models to more accurately formulate rations for individual dairy cows which permit the comparison of alternative feeding programs based upon both maximal animal performance and minimal nutrient losses in animal waste. This model is being tested on select commercial dairy farms to evaluate the extent to which total nitrogen losses in manure can be reduced without impacting economic performance of the farm. At the same time, whole farm nutrient models have been developed to evaluate alternative cropping systems which will make maximum use of nutrients from animal waste and minimize nutrient flux from the total farm system. These tools are currently being used to survey the current status of nutrient balance on farms in the area and efforts to fine tune the tools are in progress. The

recent discovery of the quantitative significance of nitrogen loss as ammonia to the atmosphere and potential transport from the farm and redeposition to the earth's surface raises a whole new aspect of nutrient management.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. A grant has been awarded from funds appropriated in fiscal year 1993 for $134,000 and in fiscal year 1994 for $126,000. In fiscal years 1995–2000, $113,000 per year was appropriated, and $112,751 in fiscal year 2001. A total of $1,050,751 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This information is not available at the present time.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Pennsylvania, College of Veterinary Medicine at New Bolton Center, Pennsylvania.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The University researchers anticipate that work currently underway will be completed by September 2001. This will complete the original objectives of the research. The principal researcher indicates that consideration has been given to the broadening of objectives to include additional nutrients in the model system, but this has been dropped because technical expertise required is currently not readily available.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Center for Animal Health and Productivity Project was last reviewed in June 1997. An onsite review by agency technical staff was conducted in June 1995. It was concluded that project objectives are within the goals of the program, are within the mission of both the USDA and CSREES, and the institution is well equipped and qualified to carry out the research project. The institution has made excellent progress toward the completion of the original goals of the project, but still must evaluate the effectiveness of the use of the new tools developed in reducing nutrient runoff from commercial dairy farms within the watershed of the Chesapeake Bay.

CENTER FOR RURAL STUDIES, VERMONT

Question. Please provide a description of the program that has been funded under the Center for Rural Studies, Vermont project.

Answer. The Center for Rural Studies project involves applied research focused on developing and refining social and economic indicators used to evaluate the impact of economic development programming and activities. The Center is perfecting a delivery format for technical assistance for community and small business development. A major component of current research relates to utilization of the world wide web as a delivery vehicle. Project proposal undergoes a merit review within the agency.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. This is an on-going project to demonstrate the effective development and implementation of applied research, training, education, and technical assistance related to rural development. The grant has addressed methodology and strategies for assessing rural development program impacts and perfecting planning tools to assist rural areas in land use and economic planning activities.

Question. What was the original goal of this research and what has been accomplished?

Answer. The original goal was to create a database and analytical capability for rural development programming in Vermont. Examples of past accomplishments include maps presented to target child hunger programs, targeted areas for other types of rural development program intervention, analytical reports to guide the development of retail shopping areas, an "Economic Handbook for Vermont Counties," and strategies for using the world wide web to disseminate information.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The grant was initiated in fiscal year 1992. Appropriated amounts are: fiscal year's 1992–1993, $37,000 per year; fiscal year 1994, $35,000; fiscal year's 1995–1998, $32,000 per year; fiscal year 1999–2000, $200,000 per year; and fiscal year 2001, $199,560 for total appropriations of $836,560.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Fiscal year 1991 included $91,130 in state matching funds. Fiscal years 1993, $143,124; fiscal years 1994–1996, $3,547 state matching funds. Fiscal years 1997–1998 state dollars were $2,931, plus researcher's salary. No non-Federal dollars were provided for fiscal years 1999–2001.

Question. Where is this work being carried out?

Answer. Applied research and outreach is being carried out through the University of Vermont. Parts of the research and application were done in association with the Lamoille County Planning Commission and the Addison County Planning Commission.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original completion date was September 30, 1993. The original objectives of this research have been met. The additional objectives presented for fiscal year 2000 will be completed by June 30, 2001. The proposal for fiscal year 2001 has not been received to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency evaluates the merit of research proposals as they are submitted. No formal evaluation of this project has been conducted. The principal investigators and project managers submit annual reports to the agency to document impact of the project. Agency evaluation of the project includes peer review of accomplishments and proposal objectives and targeted outcomes. A state level peer review was also performed for the Year 2000 project.

CHESAPEAKE BAY AGROECOLOGY, MARYLAND

Question. Please provide a description of the research that has been funded under the Chesapeake Bay Agroecology, Maryland grant.

Answer. The Chesapeake Bay Agroecology, Maryland project focuses on increasing our understanding of nutrient cycling, retention, and utilization by vital agricultural industries located within the vulnerable Chesapeake Bay watershed ecosystems that have been impacted by outbreaks of the toxic microorganisms Pfiesteria. There is a specific focus on Maryland's Eastern Shore. This research focus has been identified as a priority by the State of Maryland's Blue Ribbon Pfiesteria Action Commission Report of 1997 and by a Research, Education and Economics—REE—strategic plan emphasis, Greater Harmony Between Agriculture and the Environment, that calls for a better understanding of the linkages between agricultural production, water and soil quality range and forest land health, and habitat protection.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. The continued viability of Maryland's important coastal agricultural economy and the protection of the Chesapeake Bay's and Atlantic coastal aquatic and agricultural resources from future Pfiesteria outbreaks depends on our ability to prevent future toxic algal blooms by stemming the flow of nitrogen, phosphorus, and other agricultural nutrients into estuarine waterways.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The objective of this research is to increase our understanding of nutrient cycling, retention, and utilization by vital agricultural industries located in the coastal regions of the Chesapeake Bay and to develop new technologies and strategies that limit the loss of nutrients into waterways while preserving and enhancing vital agricultural industries. The project was initiated in 1999, and research results from 2000 are just becoming available.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. This project was initiated in fiscal year 1999. There were $150,000 per year in fiscal years 1999 and 2000 and $174,615 in fiscal year 2001. Total appropriations are $474,615.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. The State of Maryland has pledged to match 100 percent of the Federal funds provided in fiscal year 2000 and in the future years of the Chesapeake Bay Agroecology project.

Question. Where is this work being carried out?

Answer. This research will be conducted at the University System of Maryland institutions and field research stations located throughout Maryland.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. Major progress has been made towards meeting specific project goals, as well as regional objectives. However, the issues being addressed are complex, and solutions will require a long-term approach.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. The project has not yet been evaluated by the agency. However, the projects supported by this Special Grant are peer reviewed by an independent external scientific panel prior to awarding of funds.

CHESAPEAKE BAY AQUACULTURE, MARYLAND

Question. Please provide a description of the research funded under the Chesapeake Bay Aquaculture, Maryland grant.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. The objective of the Chesapeake Bay Aquaculture project has focused on improving the culture of striped bass and its hybrids through genetic improvement, reproductive biology, nutrition, health management, waste management, and product quality. The research is aimed at enhancing production efficiency and product quality, and provides a good balance between basic and applied research. Recently, research efforts have expanded to include the evaluation of nutrient remediation capabilities of seaweed culture systems.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigator indicates that the Mid-Atlantic region of the U.S. continues to play a significant role in the overall expansion of the domestic aquaculture industry. Research supported through this program will assist in enhancing the culture of striped bass and its hybrids in the U.S. Additionally, research supported through this program will address the management of aquaculture effluents by enhancing nutrient uptake with cultured aquatic plants.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original research goal was to generate new knowledge that can be utilized to address serious problems limiting the expansion of the aquaculture industry in Maryland and the Mid-Atlantic region. The program has focused on closing the life cycle, enhancing production efficiency, decreasing effluents, and improving product quality under aquaculture conditions of striped bass and its hybrids. Research has been conducted in the areas of growth, reproduction and development, nutrition, aquacultural systems, product quality, and aquatic animal health. Progress has been made in developing controlled artificial spawning techniques, cryopreservation of sperm, and refining the nutritional requirements. Efforts to evaluate nutrient remediation capabilities of seaweed culture systems have also been initiated.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported under this grant began in fiscal year 1990 and the appropriation for fiscal year 1990 was $370,000. The appropriations for fiscal years 1991–1993 was $437,000 per year; fiscal year 1994, $411,000; fiscal years 1995–1998, $370,000 each year, fiscal years 1999 and 2000, $385,000 per year; and fiscal year 2001, $391,138. A total of $4,733,138 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates the amount of non-Federal funding for this program is as follows: in fiscal years 1991 and 1992, $200,000; in fiscal years 1993 and 1994, $175,000; in fiscal year 1995 $400,000; in fiscal year 1996 $536,000; in fiscal year 1997 approximately $400,000; in fiscal year 1998, $360,000; in fiscal year 1999, approximately $360,000; and $783,055 in fiscal year 2000. The university reports that these funds are from direct state appropriations and other non-Federal funding sources.

Question. Where is the work being carried out?

Answer. Research is being conducted at the University of Maryland.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original specific research objectives were to be completed in 1993. The original specific research objectives have been met, however, research funded through this grant continues to address problems faced by the hybrid-striped bass industry in Maryland and throughout the U.S. The specific research outlined in the current proposal will be completed in fiscal year 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES staff evaluate the progress of this project on an annual basis. The agency's fiscal year 2000 review of this project concluded that the research objectives were relevant and addressed important opportunities in the aquaculture industry. The feasibility of attaining the stated objectives during the life of the proposed research was considered good, the research team was well-qualified and has the appropriate background, facilities were adequate, the budget was appropriate for the proposed activities, and the proposed research addressed priority needs of the aquaculture industry at the state and regional levels. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Councils—NSTC—Aquaculture Research and Development Strategic Plan.

CITRUS CANKER, FLORIDA

Question. Please provide a description of the research that has been funded under the Citrus Canker, Florida grant.

Answer. This is a new grant at the University of Florida, Institute of Food and Agricultural Sciences. This project is engaged in short- and long-term research directed at the infection of commercial and residential citrus trees by the Xanthomonas bacterium which causes Citrus Canker disease. Priorities for the research are targeted at developing knowledge and technology in support of eradication of this invasive species in the short term, and in support of development of mechanisms in the long term for citrus to resist the infection process and disease development.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Citrus Canker is a devastating disease caused by an invasive bacterial pathogen. Fresh outbreaks of this disease threaten the viability of the important citrus industry in Florida and other states.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. A team of microbiologists, plant pathologists, geneticists, and horticulturists are working together on three major goals: (1) evaluate potential materials that can delay or interfere with the bacterial infection process on susceptible host material; (2) characterize aspects of canker biology, ecology, and epidemiology—disease development—that might be manipulated to reduce infection or to predict more effectively where infection has taken place; and (3) to develop mechanisms within the host plants that will increase their resistance to infection and disease development. Included are enhancing differences in susceptibility among citrus cultivars and the introduction of additional resistance mechanisms derived from the pathogen or from plants with resistance to other similar bacterial diseases. Educational objectives of this project focus on development and delivery of current information on the organism, the disease, and efforts to eliminate it. The targets of this educational effort are: (1) commercial citrus producers, harvesters, and those who work in contact with citrus trees which may be exposed to the disease; (2) homeowners with citrus planted in their yards; (3) the general public who seeks information on the eradication effort and its necessity; and (4) regulators and policy makers who are interested in science-based actions and policies.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $4,739,550.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds have been identified that have been provided for this research.

Question. Where is this work being carried out?

Answer. The work is being carried out within the Florida Agricultural Experiment Station, which is part of the Florida Institute of Food and Agricultural Sciences, and includes Research and Education Centers dealing with citrus at Lake Alfred, Bradenton, Immokalee, and Homestead.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. The University of Florida intends to operate this project as an internal competitive grants program. Submitted proposals will be reviewed by a peer panel. CSREES will annually review the request for proposals and will consult with the university on the development of the peer review process.

CITRUS TRISTEZA

Question. Please provide a description of the research that has been funded under the Citrus Tristeza research grant.

Answer. Seven projects were selected for funding through a CSREES competitive grants program. Some of the research included: survey information on distribution of the brown citrus aphid and Citrus Tristeza Virus in Louisiana and Texas; the development of resistant citrus varieties to the virus; better understanding of virus strains; and the disease complex and biological control efforts on the brown citrus aphid in Florida and California.

Question. According to this research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Citrus Tristeza virus is a problem in all citrus growing areas of the U.S. and Puerto Rico. The recent introduction of a new vector, the brown citrus aphid, into Florida has allowed for another pathotype of the virus to be introduced. The new pathotype is more destructive and causes greater damage than those pathotypes already established in the citrus producing areas.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this research is to reduce citrus losses in citrus; characterize and detect citrus tristeza virus strains; understand the biology and control of the brown citrus aphid and the epidemiology of citrus tristeza virus; identify host plant resistance; assess crop loss caused by citrus tristeza virus; develop strains of citrus tristeza virus strains that induce cross-protection in citrus, and provide virus free budwood.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999 at the appropriation level of $500,000. The appropriation for fiscal year 2000 was $595,000 and for fiscal year 2001, $740,368. A total of $1,835,368 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. There are no non-Federal funds provided for this grant.

Question. Where is this work being carried out?

Answer. Research is being carried out at land grant universities and research centers in Florida, Louisiana, California, and Texas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is the second year of this funding. An anticipated completion date has not been determined as the original objectives have not been met at this time.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. All projects underwent a peer review at the University level, a scientific peer review, and an agency merit review in August, 2000.

COMPETITIVENESS OF AGRICULTURE PRODUCTS, WASHINGTON

Question. Please provide a description of the research that has been done under the Competitiveness of Agriculture Products, Washington research grant?

Answer. This research identifies international marketing opportunities for Northwest firms in the forest products and food products sectors.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local need for this research?

Answer. Most food processing firms are small. Their export sales are made in many widely scattered markets with different languages, customs, institutions, and market structures. These markets have also been subjected to wrenching changes.

University researchers provide a central and stable core of knowledgeable experts who can guide small export businesses in navigating these markets successfully.

Forest products from the Pacific Northwest can be shipped to Asian markets for less than the cost of shipping them to the eastern population centers in the U.S. Research has opened Asian markets to U.S. light frame construction building technology, providing good opportunities to export higher-valued secondary-manufactured products to Japan and China. Research has also been focused on forest management alternatives that can better satisfy environmental goals with less negative impacts on timber-dependent communities. The Northwest agricultural economy is highly dependent upon being able to export given that food production in the region greatly exceeds food consumption.

Northwest wood products companies that could export are generally small and are not able to provide their own research. Construction technologies used in Asian markets are inferior to U.S. technology, yet there is a long history of use and cultural appreciation of traditional methods. Deregulation and change in these markets has required extensive research on comparability of alternative product and building standards, quality and service needs, training in the U.S. technology, and customization to foreign consumer values. The Pacific Northwest can grow more wood with higher quality using more advanced technologies while reducing the impact on timber-dependent communities from harvest constraints to protect certain species.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to provide the information on markets and product technologies that can open higher-valued international markets to U.S. exporters. Foreign purchasers need information on the advantages of U.S. products, and U.S. exporters need information on the substantially different quality and service requirements for serving foreign markets. If the U.S. can remain competitive and retain its presence in these markets in the face of a stronger dollar, exports should return to a high growth path once Asian economies recover. Evidence to date suggests this is indeed happening.

The food production research has focused on finding new market opportunities for Pacific Northwest producers, solving technical impediments to exports, and developing new products and new processes that will enhance exports. It has pinpointed emerging market opportunities in Southeast Asia, China, Japan, Taiwan, Korea, India, Mexico, and Latin America. It has improved the export quality of diverse products, such as asparagus, apples, grass-seed, cherries, pears, potatoes, onions, and wheat. It has helped commercialize high-value products such as Wagyu beef, azuki beans, wasabi radish, edamame, and burdock, and pioneered new food processing technologies that produce higher-quality, fresh-like, shelf-stable products and save energy and reduce waste.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work began in fiscal year 1992. The appropriation for fiscal years 1992–1993 was $800,000 each year; fiscal year 1994, $752,000; fiscal years 1995–1998, $677,000 each year; $680,000 in fiscal years 1999–2000; and $678,504 in fiscal year 2001. A total of $7,098,504 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $716,986 State appropriations, $209,622 product sales, $114,000 industry, and $661,119 miscellaneous for a total of $1,701,727 in 1991; $727,345 State appropriations, $114,810 product sales, $299,000 industry, and $347,425 miscellaneous for a total of $1,488,580 in 1992; $1,259,437 State appropriations, $55,089 product sales, $131,000 industry, and $3,000 miscellaneous for a total of $1,448,526 in 1993; $801,000 State appropriations, $1,055,000 product sales, $1,040,000 industry, and $244,000 miscellaneous for a total of $3,140,000 in 1994; $810,000 State appropriations, $42,970 product sales, $785,000 industry, and a $2,000,000 gift of a ranch due to the International Marketing Program for Agricultural Commodities and Trade Center's research on Wagyu cattle for a total of $3,637,970 in 1995; $844,000 State appropriations, $45,000 product sales $900,000 industry, and $45,000 miscellaneous for a total of $1,834,000 in 1996; $876,000 State appropriations and $1,606,000 industry for a total of $2,482,000 in 1997; $1,180,000 State appropriations and $604,000 industry for a total of $1,784,000 in 1998; $1,551,000 State appropriations, $1,006,400 industry, $62,000 product sales, and $30,096 miscellaneous for a total of $2,649,496 in 1999; $673,152 State appropriations, $488,000 industry, and $13,900 miscellaneous for a total of $1,175,052 in 2000.

Question. Where is the work being carried out?

Answer. The food research is being carried out by the International Marketing Program for Agricultural Commodities and Trade—IMPACT—at Washington State University, Pullman; and the forest products research is carried out at the Center for International Trade in Forest Products—CINTRAFOR—at the University of Washington, Seattle.

Question. What was the anticipated completion date of the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was projected for 3 years duration to be completed following fiscal year 2001.

Question. When was the last agency evaluation of this project? Provide the summary of the last evaluation conducted?

Answer. Two evaluations of the Washington State University component of the project were conducted in 1992 by USDA. The State of Washington Legislative Budget Committee gave the Washington State Center exemplary marks for meeting its objectives. On-site reviews are conducted annually of the University of Washington component of the project through annual meetings of the project's Executive Board, attended by the agency's staff. Both components are reviewed annually by the agency. The project is meeting the key objective of trade expansion through innovative research. The University of Washington project was formally reviewed by the agency in 1991. State reviews were completed in 1992 and 1994. A formal review by the University was completed in 1997. A broad survey of constituents impacted by the research was completed, resulting in a very favorable review of the Center's activities and a recommendation to continue this research. In 1998, State of Washington legislation eliminated the requirement for state reviews of the Center, including one scheduled for 1999, based on hearings that focused on the other favorable reviews and the continuous oversight by the Executive Board.

COOL SEASON LEGUME RESEARCH, IDAHO

Question. Please provide a description of the research that has been funded under the Cool Season Legume Research, Idaho grant.

Answer. The Cool Season Legumes, peas, lentils, chickpeas, and fava bean are considered minor crops on the national scale but are major in importance across the northern tier of states where all U.S. production is located. In addition to providing for U.S. consumption, they represent important export commodities and are important rotational crops in areas where a limited number of crops can be grown. Production research is urgently needed to improve economics in order to remain competitive in a world economy. The multi-state multi-disciplinary research is divided toward crop improvement, crop protection crop management, product development, and human nutrition.

Question. According to the research proposal, or principal researcher, what is the national, regional, or local need for this research?

Answer. The project is multi-state involving 5–7 states each year and representing the majority of U.S. production. Therefore, the program is national in scope.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The principal researcher believes the original goal of this project was to improve efficiency and sustainability of cool season food legumes through an integrated collaborative research program. Research on genetic resistance to important virus diseases in peas and lentils, and evaluation studies of biocontrol agents for root disease organisms on peas are underway. Other studies are evaluating integration of genetic resistance and chemical control. Considerable progress has been made using biotechnology to facilitate gene identification and transfer. Management system studies have addressed tillage and weed control issues. Results of previous years' work is already in use by area farmers and are helping to sustain the industry facing increasing competition from abroad and increasing production cost at home.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 with appropriations for fiscal year 1991 of $375,000; fiscal year 1992 and 1993, $387,000 per year; fiscal year 1994, $364,000; fiscal year 1995, $103,000; and fiscal years 1996 and 2000, $329,000; and fiscal year 2001, $328,276. A total of $3,589,276 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant were as follows: 1991, $304,761 state appropriations, $14,000 industry, and $18,071 other non-Federal; 1992, $364,851 state appropriations, $15,000 industry, and $14,000 other non-Federal; 1993, $400,191 state appropriations, $19,725 industry, and $10,063, other non-Federal; and 1994, $147,607 non-Federal support. Non-Federal support for 1995 was $150,607; for 1996 it was $386,887; for 1997 $384,628; for 1998 $392,000; for 1999 $557,000; and for 2000 $443,000.

Question. Where is this work being carried out?

Answer. Research has been conducted at agricultural experiment stations in Idaho, Oregon, Washington, Wisconsin, Minnesota, New York, Montana, North Dakota, and New Hampshire. The funds have been awarded competitively among participating states and not all states receive funds each year.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The projected duration of the initial project was five years. Revised objectives are expected to be completed in 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation?

Answer. The project is evaluated annually by a university/industry advisory panel. Proposals are peer reviewed at the universities and by the agency National Program Leaders. This research has provided vital information which is already being used to improve production management. However, a number of critical issues related to insect and disease control as well as crop quality remain to be addressed. Breeding for insect and disease resistance is given the highest priority, while crop management alternatives to help reduce disease and insect pest problems will continue to be studied.

CRANBERRY AND BLUEBERRY, MASSACHUSETTS

Question. Please provide a description of the research that has been funded under the Cranberry/Blueberry, Massachusetts grant.

Answer. Molecular genetics is being used to develop a system that will allow farmers to predict when dodder will emerge in their fields. This will allow accurate timing of herbicide application which will enable farmers to use less herbicide. In addition, molecular genetics is being used in an attempt to induce natural defense mechanisms in cranberry plants that will reduce the need for fungicide applications to protection cranberry fruit from rotting organisms.

Question. According to this research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. The research is a new approach to managing pests associated with cranberries and blueberries in Massachusetts. The program is focusing on the use of molecular genetics to reduce pesticide dependency in cranberry production. The research will be applicable to all states where cranberries are produced.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals of this research are to determine whether early emerging and late emerging dodder populations can be differentiated using molecular markers; to determine the relationships among several isolates of a fungus which might be used in biological control; to screen various plant pathogen fungi isolates for infectivity and virulence and determine the presence of genes in these isolates; and develop an in vitro assay system for root rot and induce resistance in cranberry plants caused by different isotypes of the fungus. To date, markers have been developed that differentiate between early and late emerging dodder populations. Strains of Phytophthora cinnamomi have been identified with potential to be used as elicitors of systemic acquired resistance.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999 and the appropriation for fiscal year 1999 and 2000 was $150,000. The appropriation in fiscal year 2001 is $174,615. A total of $474,615 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds are provided for this grant.

Question. Where is this work being carried out?

Answer. Research is being carried out at the University of Massachusetts Cranberry Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is fiscal year 2005.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project underwent a merit review at the agency level in January 2001. It was determined that the investigators are making significant progress toward the achievement of their stated objectives. The remaining objectives should be attainable within a period of four years. The investigators are publicizing the results of their research, both in professional venues as well as to producers. The quality of this project was determined to be high.

CRANBERRY-BLUEBERRY DISEASE AND BREEDING, NEW JERSEY

Question. Please provide a description of the research that has been funded under the Cranberry-Blueberry Disease and Breeding, New Jersey grant.

Answer. The work has focused on identification and monitoring of insect pests on blueberries and cranberries; the identification, breeding, and incorporation of superior germplasm into horticulturally-desirable genotypes; identification and determination of several fungal fruit-rotting species; and identification of root-rot resistant cranberry genotypes. Overall, research has focused on the attainment of cultural management methods that are environmentally compatible, while reducing blueberry and cranberry crop losses.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. This project involves diseases having major impacts on New Jersey's cranberry and blueberry industries, but the findings here are being shared with experts in Wisconsin, Michigan, and New England.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was the development of cranberry and blueberry cultivars compatible with new disease and production management strategies. Over 75 blueberry selections with wild blueberry accessions resistant to secondary mummy berry infections have been moved into advanced testing identified. The biology and seasonal life history of spotted fireworm on cranberries has been determined. A pheromone trap-based monitoring system for cranberry fruitworm was developed and further refined for commercialization. Blueberry fruit volatiles attractive to blueberry maggots were identified and tested in the field. Researchers have planted over 4,500 cranberry progeny for evaluation. Seven major fruit-rotting fungal species were identified, and their incidence in 10 major cultivars of blueberry and cranberry were determined. It is likely that resistance to fruit rot is specific to fungal species.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1985, $100,000; fiscal years 1986 and 1987, $95,000 per year; fiscal years 1988 and 1989, $260,000 per year; fiscal year 1990, $275,000; fiscal years 1991 to 1993, $260,000 per year; fiscal year 1994, $244,000; fiscal years 1995 to 2000, $220,000 each year; and fiscal year 2001, $219,516. A total of $3,648,516 has been appropriated

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. State and non-Federal sources are providing funds in the amount of 250,000 each year.

Question. Where is this work being carried out?

Answer. This research is being conducted at the New Jersey Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The completion date for the original objectives was 1995. Those objectives have not been met. To complete the breeding, disease and insect management, and provision of new management guidelines for extension and crop consultants, it is estimated that an additional five to nine years will be required.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted?

Answer. The last agency evaluation of this project occurred in January 1999. In summary, the evaluation stated that the effort has continued to be highly productive and resulted in improved management strategies, new plant materials, and environmentally-balanced pesticides being used by growers. Some specific accomplishments included continued evaluation of blueberry and cranberry germplasm for yield, color, fruit rot, and flavor; and development of an efficient plant regeneration system for cranberry for genetic transformation. Other research includes trap and lure development for monitoring the cranberry fruitworm and evaluation of several aphidicides in blueberries. The discovery of an anti-sporulant in a registered fungicide provide for a novel use patent for blueberry anthracnose control.

CRITICAL ISSUES

Question. Please provide a description of the research that has been funded under the Critical Issues grant.

Answer. These funds support research on critical issues related to new or emerging pests and diseases of animals and plants. The program is expected to initiate research in a short time period until other resources can be secured to address the issue. The program began in fiscal year 1996 when potato late blight and vesicular stomatitis in animals were the two targeted emerging problems chosen for funding. Funding for these two projects was continued with fiscal year 1997 funds to permit orderly conclusion of work leading to integrated pest management efforts for the potato late blight and for further surveys on wildlife reservoirs of the vesicular stomatitis virus. During fiscal year 1998, these funds were used for support of a project on a newly emerging corona virus strain that is a probable cause of severe outbreaks of shipping fever or pneumonia in transported beef cattle. For plant diseases, fiscal year 1998 funds were used to support two major research projects on a new disease of sorghum, Sorghum Ergot. The two projects were Epidemiology and Life History of Ergot and Development of Integrated Control of Sorghum Ergot. In fiscal year 1999, Johne's Disease of cattle was identified by both veterinary researchers and USDA's Animal and Plant Health Inspection Service—APHIS—animal disease control staff as a major issue. For plants in fiscal year 1999, research was supported on the insect-vectored disease, Tomato Yellow Leaf Curl virus. For fiscal year 2000, plant research was supported to address monitoring of Mexican rice borer movement into sugarcane in Texas and Louisiana, the rate and spread of Cactoblastis moth on U.S. cactus, and incidence of cucurbit yellow stunting disorder virus in U.S. cucurbits. The research on Johne's disease issues was continued in fiscal year 2000, with continued emphasis on the possible linkage between this disease in cattle and Crohn's disease in humans.

Question. What is the national, regional, or local need for this research?

Answer. Vesicular stomatitis was of national impact due to its similarity to foot and mouth disease and the negative effect on movement of horses, cattle and swine during an outbreak. Since 1992, new, highly virulent strains of the potato late blight fungus, Phytophthora infestans, caused severe losses in potato and tomato production throughout the U.S., resulting in what some experts term a national crisis. From 1993 to 1995, a series of meetings involving growers, consultants, industry, academia, and government assessed the growing problem, and participants concluded that extraordinary steps were needed to mobilize research efforts that would help address the problem in the near term. Bovine shipping fever causes heavy economic losses to the beef industry in cattle being shipped to feedlots, and vaccines for currently recognized viruses seem to be ineffective in certain settings in preventing outbreaks. The isolation of a probable new virus, bovine respiratory corona virus, represents an opportunity to contribute to the reduction of this disease complex in cattle. Sorghum Ergot is a serious disease of sorghum which was first detected in Texas in March, 1997. It rapidly spread to almost all sorghum growing regions of the U.S. by September 1997. Johne's Disease has been identified by several commodity and animal health organizations as the leading problem for dairy cattle owners and also a serious issue for beef producers. Decisions on specific research needs and focus of research projects is decided after consultation with a variety of commodity stakeholders, other USDA agencies, especially APHIS, scientists in the land grant system, and other public input. Tomato Yellow Leaf Curl virus is a newly introduced disease into Florida that has caused considerable crop loss and now has moved into Georgia. This disease is vectored by the silver leaf whitefly and affects tomatoes, beans, and other vegetables. The disease symptoms are severe stunting, distortion, and high rates of flower loss. Mexican rice borer, a pest of sugarcane in the Lower Rio Grande valley of Texas, is a new and emerging pest which threatens sugarcane production in Louisiana. The biocontrol agent, Cactoblastis cactorum, was accidently introduced into Florida from the Caribbean Islands in

1989. Even though this species was introduced into the Caribbean basin as a biocontrol agent for cacti, it now threatens many native species of cacti in Florida and has the potential to spread to other cactus species in the United States. The Old World virus, cucurbit yellow stunting disorder virus, was first found in melons from Texas and northern Mexico in 1999. In other parts of the world it has become the most important virus in cucurbits. Determination of incidence and spread in the U.S. is important, particularly since the primary vector species Bemisia argentifolii is well established in Florida, other southern states, California, and Arizona.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research supported by this program is to focus on specific questions or issues which are considered to be most important in developing control or prevention programs for the disease agent under investigation, whether in plants or animals. Thus, for the animal studies, the focus has been on identifying natural reservoirs of the vesicular stomatitis virus and insects which are capable of transmitting the disease among animals; determining the precise significance of the apparent new corona virus in shipping fever pneumonia of beef cattle; and developing a sub-unit vaccine for Johne's Disease in cattle and determining the significance of a linkage between Johne's Disease and Crohn's disease of humans. In spite of a very large research effort, the natural reservoir for vesicular stomatitis virus is still unknown. The bovine respiratory disease work on the apparently new respiratory corona virus has validated the role of this virus in outbreaks of pneumonia in cattle vaccinated for other known causes of shipping fever. This virus has now been isolated from animals with pneumonia in other states. Research was initiated to provide growers with the knowledge and technologies they need to reduce economic losses resulting from potato late blight with less reliance on pesticides. Research initiated with fiscal year 1996 funds is making progress in developing modeling tools and management approaches that are an important step towards reducing the devastating effects of late blight. The National Late Blight Fungicide Trial provided important information on the efficacy of an array of fungicide programs. A World Wide Web site was established to provide growers, researchers, and industry with the latest information on management of potato late blight. The research projects on Sorghum Ergot were intended to develop information about the history and epidemiology of the disease which would lead to studies on development of integrated control programs for this fungus. Research on Tomato Yellow Leaf Curl Virus has aided in the understanding of which field crops other than tomato serve as a source of virus infection. Weed reservoirs were also studied as potential whitefly infection sites. These results will help in the development of field management strategies for this virus. Another research project tested transformed tomatoes that had been selected for resistance to Tomato Yellow Leaf Curl virus. This approach was successful in developing resistant tomatoes to another similar virus and is expected to produce highly resistant tomato varieties to Tomato Yellow Leaf Curl virus. Incidence and spread of cucurbit yellow stunting disorder virus, Cactoblastis moths, and the Mexican rice borer are all significant for agriculture and horticulture in the U.S.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. $200,000 were appropriated in fiscal years 1996–2000 and $199,560 in fiscal year 2001 for a total appropriation of $1,199,560 to date.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This information is not currently available.

Question. Where is this work being carried out?

Answer. From 1996 to 1997, the vesicular stomatitis work was conducted at the University of Arizona and Colorado State University. The potato late blight work has been conducted at Washington State University, Oregon State University, University of Idaho, University of Wisconsin, the Pennsylvania State University, and North Carolina State University. In 1998, the bovine respiratory disease work was performed at Louisiana State University. The Sorghum Ergot work was done at the University of Nebraska and Texas A&M University. In fiscal years 1999 and 2000, the research on Johne's Disease was performed at Iowa State University and the University of Iowa. The research on Tomato Yellow Leaf Curl Virus was carried out at the Gulf Coast Research and Education Center, University of Florida, Bradenton, Florida, and the Tropical Research and Education Center, University of Florida, Homestead, Florida. The research on the Mexican rice borer is conducted in Texas and Louisiana, the research on Cactoblastis is being done in Florida and the incidence of cucurbit yellow stunting disorder virus is being done in regions where the primary vector, Bemisia argentifolii, is known to occur.

Question. What was the anticipated date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Critical Issues funds are intended to support the initiation of research on issues requiring immediate attention until other, longer-term resources are available. The objectives of the projects are short-term and are expected to be completed within a 1–2 year period. This has been true for the vesicular stomatitis and potato late blight work. These projects have been reviewed to ensure compliance with the original goals during fiscal year 1997. The subsequent project grants for potato blight in 1997 and for Sorghum Ergot and bovine respiratory disease in 1998 had short term goals and were completed by the end of their project years in late spring 1999. Similarly, the objectives of the research funded with fiscal year 1999 funds were completed by the summer of 2000. For the Johne's Disease work, the emphasis is on determining the likelihood of a link between this disease of cattle and Crohn's Disease in humans and also developing a vaccine to prevent further spread within the cattle population. For Tomato Yellow Leaf Curl Virus, the emphasis is on field management of the disease and the development of virus resistant varieties of tomato. For Mexican rice borer, Cactoblastis, and cucurbit yellow stunting disorder virus work the primary focus is on determination of incidence and spread.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. All projects were reviewed for scientific merit before funding decisions were made. Also, scientists being supported with these funds are in close contact with CSREES' National Program Leaders in these areas so that the agency is kept abreast of developments as they occur. Each investigator is required to submit a detailed report at the end of the funding period to document their accomplishments with these funds. In addition, site visits are arranged when convenient to include as part of other official travel to that state. The vesicular stomatitis research had a site visit review in early 1998 and was reviewed as a completed project in March 1999 during a program review at the University of Arizona. The final results of the bovine respiratory work were submitted to CSREES for review in early fall 1999. The plant related projects have received similar reviews as the projects have moved forward, and the results are being reported at regional and national meetings.

DAIRY AND MEAT GOAT RESEARCH, TEXAS

Question. Please provide a description of the research that has been funded under the Dairy and Meat Goat Research, Texas grant?

Answer. The program has addressed a range of issues associated with goat production. Research by scientists at the International Dairy Goat Center, Prairie View A&M University, focuses on problems affecting goat production in the U.S. Issues included are the study of nutritional requirements of goats, disease problems, methods to improve reproductive efficiency in the doe, the use of gene transfer to improve caprine genetics, and the evaluation of breeding schemes to improve meat and milk production. Currently, research is in progress to assess the economics of alternative breeding and rearing systems for goats in the southeastern region of the U.S., to study the incidence and impact of intestinal parasites, and to develop least-cost health management strategies for parasite control.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that nationally, most of the farm enterprises that include goats are diverse and maintain a relatively small number of animals. Responding to disease, nutrition, breeding, and management problems will improve efficiency of production and economic returns to the enterprise.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to conduct research that will lead to improvement in goat production among the many small producers in the U.S. Research has been conducted to develop and improve nutritional standards, improve genetic lines for meat and milk production and to define mechanisms that impede reproductive efficiency in goats. Current efforts focus on the development of enterprise budget management tools for goat producers in the Texas gulf coast region.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded through appropriated funds as follows: $100,000 per year for fiscal years 1983–1985; $95,000 per year for fiscal years 1986–1988; no funds were appropriated in fiscal year 1989; $74,000 for fiscal year 1990;

$75,000 per year for fiscal years 1991–1993; $70,000 for fiscal year 1994; $63,000 per year for fiscal years 1995–2000; and $62,861 in fiscal year 2001. A total of $1,394,861 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university reports no non-Federal funds expended on this program.

Question. Where is this work being carried out?

Answer. Research is being conducted at Prairie View A&M University in Texas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The overall objective of this research is to support the needs of small farms engaged in the production of meat and milk from goats along the Texas Gulf Coast. The university researchers continue to address those needs on an annual basis, and anticipate that work currently in progress will be completed by the end of fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Dairy/Meat Goat Research grant was reviewed last in June 1997. The project objectives are within the goals of the program, are within the mission of both USDA and CSREES, and the institution is well equipped and qualified to carry out the research project.

DAIRY FARM PROFITABILITY, PENNSYLVANIA

Bonilla. Please provide a description of the research that has been funded under the Dairy Farm Profitability, Pennsylvania grant.

Answer. CSREES has requested the university to submit a grant proposal that has not yet been received. This is a new project that will be initiated in fiscal year 2001.

Question. According to the research proposal, or the principal researcher, what it the national, regional or local need for this research?

Answer. The need for this research is national in scope. The dairy industry is undergoing significant structural change. Producers must adopt and improve practices that will enable them to remain profitable as these changes occur.

Question. What was the original goal for this research and what has been accomplished to date?

Answer. The goal of the research is to identify and develop improved dairy management practices that will help producers sustain and improve the profitability of their operations. Since the project is just now being implemented, there are no accomplishments to report at this time.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001. The appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Some preliminary related work has been conducted at the Pennsylvania State University. A proposal for this new project is just being developed so at this date, no non-Federal funds have been provided for this grant.

Question. Where is the work being carried out?

Answer. Research will be conducted at the Pennsylvania State University

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Since the proposal has not yet been received, anticipated completion dates are not available at this time.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Since this is a new project, no evaluation has yet been conducted.

DELTA RURAL REVITALIZATION, MISSISSIPPI

Question. Please provide a description of the program that has been funded under the Delta Rural Revitalization, Mississippi project?

Answer. The Delta Rural Revitalization, Mississippi project involves applied research and outreach focused on creating new and expanded economic development opportunities for the Mississippi Delta region. The project has gone through several phases in the delineation of a strategy for long range development within the region.

Phase I was completed with the delivery of a baseline assessment of the economic, social, and political factors that enhance or impede the advancement of the region. Phase II of the project evaluated the potential for entrepreneurship and small business creation as mechanisms to improve economic conditions. Phase III is now focusing on technical assistance to Delta region manufacturing firms to strengthen their ability to provide employment and incomes and includes the development and refinement of data bases and development statistics. The proposals are submitted for internal review and evaluation within the agency. Recommendations are presented to enhance impact on regional and national agendas and provide greater impact on targeted region.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. This is an on-going pilot to demonstrate the effective development and implementation of applied research, training, education, and technical assistance related to job and business development as a development strategy. The principal researcher believes that the databases, technical assistance, and analytical capability will increase the effectiveness of economic development and entrepreneurial activity in the region.

Question. What was the original goal of this research and what has been accomplished?

Answer. The applied research and outreach project was designed to increase ability to strategically guide economic development through target industry attraction. An analytical baseline for the Delta region has been developed to benchmark economic development progress and to profile potential arenas of opportunity. An entrepreneurial forum was established to help new business ventures with start-up advice and assistance. A venture capital association was formed to help both inventors and businessmen find capital resources to carry out development initiatives. The emphasis of the project is now shifted to technical assistance for existing industries. During the past budget year, activity of this project has been directed to expanding the use of information technology in economic development in the Mississippi Delta.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from appropriated funds in the following amounts per year: fiscal year 1989, $175,000; fiscal year 1990, $173,000; fiscal year's 1991–1993, $175,000 per year; fiscal year 1994, $164,000; fiscal year's 1995–2000, $148,000 per year; and fiscal year 2001, $204,549. A total of $2,129,549 has been appropriated and awarded.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Total non-Federal funds directed to this project, as reported by Mississippi State University, are: fiscal year 1991, $117,866; fiscal year 1992, $84,402; fiscal year 1993, $68,961; fiscal year 1998, $57,404. Reports for other years indicate no non-Federal funds.

Question. Where is this work being carried out?

Answer. Applied research and outreach is being carried out through Mississippi State University and sub-contractors.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original completion date was September 30, 1990. The original objectives of this research have been met. The additional objectives being presented for the current year should be completed by September 30, 2001. The current year proposal has not been submitted to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency evaluates the merit of research proposals as they are submitted. No formal evaluation of this project has been conducted. The principal investigators and project managers submit periodic reports to the agency to document impact of the project. Significant suggestions have been offered to improve the relevance and impact of this project. An assessment of the project was conducted by the Social Science Research Center at Mississippi State University and a report compiled in November 1996. A site review was conducted in April 1999 to assess the merits of research efforts underway. A review and evaluation by an outside consultant is currently underway.

DESIGNING FOODS FOR HEALTH, TEXAS

Question. Please provide a description of the research that has been funded under the Designing Foods for Health, Texas grant.

Answer. Designing fruits and vegetables for improved health and nutrition will be the overall goal. Health scientists have documented that naturally-occurring compounds such as flavonoids, carotenoids, and antioxidants have health benefits to prevent heart disease, stroke, and some forms of cancer. The research objective is to develop fruits and vegetables that have uniform, high levels of these compounds so all consumers can prevent chronic diseases through their diet. The fiscal year 2000 grant supports research through September 2001. CSREES requested the university submit a grant proposal for fiscal year 2001 that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The need for continuing this research is to improve the quality of many different fruits and vegetables. Health scientists have documented that several fruits and vegetables have naturally-occurring compounds that promote health and prevent disease. The medical community advocates that preventing disease is more advantageous than trying to cure it. For example, a large effort of Texas health science centers is to develop improved diets that can aid in prevention of colon, esophagus, and prostate cancers. A wide range of improved fruits and vegetables for health will provide an enormous benefit for consumers worldwide, and will help people who may not know of the additional benefits of consuming the new varieties but like the texture and taste.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to design fruits and vegetables that assist in preventing diseases through diet. With plant breeders and medical scientists now working together, goals can be established to develop varieties that provide more nutrition and assist in preventing disease in children through the elderly. The most exciting accomplishment has been the development of the new carrot, BetaSweet. It was designed to be attractive, crisp in texture, have excellent sweet carrot flavor, and to contain a higher content of beta-carotene than most orange carrots in the marketplace. Beta-carotene is a major source of Vitamin A and is thought to play additional roles in preventing certain forms of cancer, especially oral cancer. This carrot also contains high levels of anthocyanins that are normally found in fruits such as grapes and blueberries. They are known to be excellent antioxidants that prevent blood clotting, aid in the prevention of some cancers, heart disease, and strokes. The researchers are also improving health promoting aspects of the BetaSweet carrot by adding lycopene, which is found in tomatoes. Lycopene is thought to play a role in the prevention of prostate cancer. All these improvements are being done using conventional breeding.

Question. How long has this work been underway and how much has been appropriated by fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999, and the appropriation for fiscal year 1999 was $250,000; for fiscal year 2000 $318,750; and for fiscal year 2001, $561,761. A total of $1,130,511 has been appropriated.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were $206,500 from university funds and $165,000 from an endowment fund in 1999, and $240,000 from university funds and $180,600 from an endowment fund in 2000.

Question. Where is this work being carried out?

Answer. Research will be conducted at the Vegetable and Fruit Improvement Center and other research centers within the Texas Agricultural and Mechanical University System.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original overall objective of developing fruits and vegetables that contain high levels of naturally-occurring compounds that have health benefits continues to be addressed. The specific objective of improving the carrot by increasing the carotenoid and anthocyanin content while maintaining superior flavor and textural properties will be completed in 2001. Related objectives include increasing quercetin and anthocyanin levels in onions; carotene and anthocyanins in peaches; carotene in melons; carotene, quercetin, vitamin C, and lutein in peppers. Some of these objectives will be met by the end of 2003 and will include other crops such as tomatoes and citrus in the near future.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project director conducted a review by peer scientists at Texas Agricultural and Mechanical University prior to submitting the proposal for fiscal year 1999. The Vegetable and Fruit Improvement Center has a very active advisory board of industry professionals who review the Center's research programs annually.

DIAPREPES/ROOTWEEVIL, FLORIDA

Question. Please provide a description of the research that has been funded under the Diaprepes/Rootweevil, Florida grant.

Answer. The funds are requested to address objectives established by an interagency/industry task force. CSREES will request the university to submit a grant proposal for this award. Among the most critical priorities are: Assessment of the plant injury and economic damage caused by the root weevil on horticultural, agronomic, and ornamental plants in the affected area, and the potential for the pest to spread beyond its current range; Development and use of monitoring tools to evaluate population levels, regions infested, and to predict where economic damage is likely to occur; Development, field evaluation, and implementation of management tools that individually will assist in weevil management within existing pest management programs in citrus and other affected crops. Tools to be developed are chemical, biological, cultural and mechanical methods.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Diaprepes abbreviatus is a pest introduced into Florida from its native Caribbean Islands in the late 1960's, but remained very localized in few citrus groves until the late 1980's when the pest began to spread. Known as a serious pest of a wide range of plants, this pest has the potential to affect traditional agriculture and also native plants. The potential exists for enormous economic losses in the home landscape industry, a multi-billion dollar business in Florida and the Southeast. Further, movement could expand the impact of this pest to other areas of the U.S., and could invoke regulatory concerns between trading partners and commerce. Individual plants which are attacked are injured through root loss, underground stem damage, and in the case of citrus, plant death. Whole blocks of citrus are progressively being killed, and the area cannot be replanted to citrus or other susceptible crops. Present management needs involve the development and evaluation of methods to locate and reduce larval and adult populations by a combination of treatments that are effective, safe, and economical.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. Research on this pest has concentrated in the past year on further development of management approaches for citrus, as well as development of information and management options for the pest on a wide range of other crops and native plants. Aspects of the biology of the weevil under investigation within this program include understanding the attraction cues that allow adult weevils to identify and locate host plants on which to feed and lay eggs. Leading from this research is the development of monitoring and trapping methods, which help us understand seasonal and spatial movement of the weevil populations. This in turn allows for the proper timing of applied controls. Field research is refining the use of selected pesticides for adult control on host plant foliage and use of short-residual pesticides for interference with young larvae as they fall from the canopy to infest roots. The evaluation of commercially-available parasitic nematodes to attack and kill root weevils and the testing of a native nematode are presently under investigation. Introduction and evaluation of parasitoid insects which attack and kill weevil eggs also is underway. Integration of these tools into a system which will reduce crop impact and slow weevil spread is the ultimate goal of this research effort. Establishment of cooperative research efforts in Texas are progressing following the finding of this pest in Texas in late 2000.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Fiscal year 2000 was the first year of the grant and $297,500 was appropriated. For fiscal year 2001, $394,131 is appropriated for a total of $691,631.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Investment of state funds will continue to be made in this research. University of Florida has several programs that have focused their efforts on Diaprepes research, including the entomologists, pathologists, and plant improvement teams.

Internal funds, as well as effort, have been redirected to address this problem. The citrus growers of Florida have dedicated considerable grant dollars from a self-tax for research, and more recently, other commodity groups are contributing to fund research. In-kind support through cooperation, shared equipment, and other means are being provided to address the issue.

Question. Where is the work being carried out?

Answer. The work is being carried out at the University of Florida with cooperative field studies in the new infested area of Texas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Completion of some of the objectives will continue past the period of the current funding proposal, with evaluation and definition of new or modified objectives and priorities to be specified in a report which will accompany a new proposal.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project which will be evaluated as accomplishments are reported.

DROUGHT MITIGATION, NEBRASKA

Question. Please provide a description of the research that has been funded under the Drought Mitigation, Nebraska grant.

Answer. The National Drought Mitigation Center in the School of Natural Resource Sciences at the University of Nebraska has a comprehensive program aimed at lessening societal vulnerability to drought. Activities of the Center include: promoting and conducting research on drought mitigation and preparedness technologies, improving coordination of drought-related activities and actions within and between levels of government, and assisting in the development, dissemination, and implementation of appropriate mitigation and preparedness technologies in the public and private sectors.

Emphasis is directed toward research, outreach projects, and mitigation/management strategies that stress risk minimization.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The Federal Emergency Management Agency has recently estimated that annual losses attributable to drought in the U.S. are between $6–8 billion. Drought impacts are escalating in response to increasing demands for water and other natural resources, increasing and shifting population, new technologies, and social behavior. These impacts are diverse and affect the economic, environmental, and social sectors of society. This fact was reinforced dramatically in 1996 in the Southwestern U.S. Impacts of drought in Texas alone were estimated to be more than $5 billion.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to create a National Drought Mitigation Center and develop a comprehensive program aimed at lessening societal water shortages and vulnerability to drought. The Center has created an information clearinghouse and is delivering information to a diverse audience of users through its web site. Over 50,000 users now access the Center's web site each month. The Center's award winning web site was used extensively by state and Federal agencies during the 1999 drought to assist in the evaluation and response process. This web site networks users of drought-related information in the U.S. and elsewhere with information that would otherwise be unavailable or inaccessible.

The National Drought Mitigation Center played an important role in the response of Federal and state government to the 1996 severe drought in the Southwest and southern Great Plains states. The Center provides timely and relevant information on drought severity and alternative response, mitigation, and planning measures. The Center participated in the Multi-state Drought Task Force workshop organized at the request of President Clinton and helped formulate long-term recommendations to improve the way this Nation prepares for and responds to drought. The Center is also a member of the Western Governors' Association Drought Task Force. This Task Force made recommendations to reduce the risks associated with drought in the western U.S.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant received an appropriation of $200,000 in fiscal years 1995 through 2000 and $199,560 in fiscal year 2001 for a total appropriation of $1,399,560.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The University of Nebraska contributed $75,737 of non-Federal funds in support of this research in fiscal year 1995, $58,977 in fiscal year 1996, and $61,545 in fiscal year 1997. The University of Nebraska contributed $67,819 in fiscal year 1998 and $74,887 in fiscal year 1999.

Question. Where is this work being carried out?

Answer. The research will be conducted at the University of Nebraska-Lincoln.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The research conducted under this project is being undertaken within a series of nine tasks. Significant progress on each of these tasks has been made, but these activities are ongoing. The information clearinghouse has been created, but new information and documents are continuously added to the web site in response to users' needs and requests. In addition, the drought watch section is updated monthly to assist users in evaluating current climate and water supply conditions. Research on new climatic indices to monitor drought and water supply conditions are being tested, and mitigation technologies and existing state drought plans are continuously evaluated. New activities are also being initiated in response to the growing interest and awareness in drought mitigation in the United States and elsewhere. The activities of the Western Drought Coordination Council provide the Center with a broadening range of research needs on an annual basis.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer-reviewed at the time the proposal was prepared in 1998. Each year, when the new proposal is prepared, the proposal is reviewed on the campus and again by agency representatives. The project is evaluated for progress toward completion of objectives, new activities proposed, and accomplishments.

ECOSYSTEMS, ALABAMA

Question. Please provide a description of the research that has been funded under the Ecosystems, Alabama grant.

Answer. In 1998, CSREES approved a proposal from Auburn University to support projects at two Community Colleges in Alabama—Faulkner State Community College and Alabama Southern Community College. The Faulkner State Community College's project is intended to: (1) fund the development of distance education classrooms for estuarine- and marine-related education, and (2) to establish an aquaculture-related veterinary technician education program. The Alabama Southern Community College project will purchase and install laboratory equipment to further the education capacity of the Center for Excellence in Forestry, Paper, and Chemical Technology.

Question. According to the research proposal, or the principal researcher, what is the local, regional, or national need for this project?

Answer. Faulkner State Community College asserts that their veterinary technician program will be the only such program in the country providing the first two years of the degree program leading to an A.A. degree at Faulkner State, and the second two years leading to a bachelor's degree at Auburn University. The distance education capacity is intended to better integrate marine and estuary research into education activities.

The Center for Excellence in Forestry, Paper, and Chemical Technology at Alabama Southern Community College is believed to be a unique educational opportunity in the Southeastern U.S. due to the merging of four individual technology training programs. These programs are: (1) Industrial Maintenance, (2) Electronics and Instrumentation, (3) Paper Process, and (4) Chemical Process training.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals for these projects include the development of a veterinary technician training program and integration of marine and estuary research into classrooms at Faulkner State Community College; and to establish a state-of-the-art wood paper process and chemical process laboratory at Southern Alabama Community College.

The fiscal year 1998 objectives for Faulkner State Community College were to establish a distance education web site to enhance integration of marine and estuarine environmental research and to establish a 2+2 veterinary technicians program with an emphasis on marine/aquaculture. The distance education web site is in place and

has been tested. In addition, classrooms have been tested and some faculty have been trained in the use of the media/hardware. After further assessment, it was decided that the proposed Veterinary Technician Program would not be cost effective. With the fiscal year 1999 proposal, Faulkner State Community College proposed instead to establish a 2+2 Environmental Science degree program.

The fiscal year 1998 objectives for Alabama Southern Community College was to have completed, tested, and placed into operation the chemical, pulp, and paper process laboratories in the areas of (1) Process Control, (2) Crystallization, (3) Batch Reactor, and (4) Digester by June 2000. The Process Controls, Crystallization, and Digester laboratories were completed. The Batch Reactor is currently being completed. The completion of the Batch Reactor was delayed because the original corporation designated to do the work on this project was unable to follow through. However, Auburn University took the responsibility of preparing the engineering specifications for the Batch Reactor, and the unit will be functional by the end of summer 2001.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Funds were appropriated for this grant beginning in fiscal year 1998. In fiscal years 1998 through 2000, $500,000 was appropriated each year, and in fiscal year 2001, $498,900 is appropriated. A total of $1,998,900 has been appropriated.

Question. What is the source and amount of non-Federal funds provided to support this project?

Answer. No non-Federal funds have been identified to support this project.

Question. Where is this work being carried out?

Answer. The project is being conducted at the Faulkner State Community College Aquaculture Center in Alabama and at the Alabama Southern Community College Center for Forestry, Paper, and Chemical Technology.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Alabama Southern Community College project proposal indicates a two-year budget for project completion. The Faulkner State Community College proposal was for one year only. The objectives have not yet been met but are well underway.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project had a merit review before it began in fiscal year 1998. Subsequent projects were peer reviewed by the respective institutions for the fiscal year 1999 allocation.

EFFICIENT IRRIGATION, NEW MEXICO AND TEXAS

Question. Please provide a description of the research that has been funded under the Efficient Irrigation, New Mexico and Texas grant.

Answer. CSREES has requested the university to submit a grant proposal that has not yet been received. It is anticipated that it will request funding for research to increase the efficiency of agriculture and urban landscape irrigation and encourage the development of efficient water markets in the Rio Grande Basin.

Question. According to the research proposal, or the principal researcher, what is the national, regional, and local need for this program?

Answer. Growing demand and drought have created critical water supply issues for much of the southwest. This project is designed to improve irrigation efficiency and water conservation in the Rio Grande basin in New Mexico, Texas, and Mexico. The crux of the problem is that a total water management system, which would assist agriculture and urban interests, does not exist. As a result, water is released on demand often resulting in inefficient management. Water problems will only increase as the population in this region grows and more industry is located to this region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. Subject areas addressed will include irrigation district studies; irrigation system management; urban landscape and in-home water conservation; environment, ecology and water quality protection; saline and waste water management and water use; basin-wide hydrology, salinity modeling, and technology; and communications/oversight/biometric support/accountability.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $1,185,386.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. Sources of any non-Federal funds will be identified in the grant proposal.

Question. Where is the work being carried out?

Answer. This research will be carried out by Texas A&M University and New Mexico State University. Coordination will be provided through the Water Resources Institute at Texas A&M University.

Question. What was the anticipated completion date for the original objectives of this project? Have them objectives been met? What is the anticipated completion date of additional or related objectives.

Answer. The anticipated completion date for the first phase is April 30, 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the, last evaluation conducted.

Answer. This is a new project. An agency review will be conducted prior to awarding the grant.

ENVIRONMENTAL BIOTECHNOLOGY, RHODE ISLAND

Question. Please provide a description of the research that has been funded under the Environmental Biotechnology, Rhode Island grant.

Answer. This is a new special grant this year. The agency has requested the university to submit a grant proposal that has not yet been received. Preliminary communications with the institutional research administrator indicate that the project is part of an ongoing environmental biotechnology initiative approved by the Rhode Island Board of Governors for Higher Education in 1998. The goal of the initiative is to enhance the educational, training, and research capacities of the biological and environmental sciences of the university through development of state-of-the-art research and training facilities including core facilities for genomics, transgenics, imaging, and bioinformatics.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the institutional research administrator, this project will strengthen research and training programs in marine and environmental biology and ecology in response to public needs for research, for practical problem solving in government and industry, and for the public and private needs of scholars, technological experts, and future leaders.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to enhance the educational, training, and research capacities of biological and environmental sciences of the institution through development of state-of-the-art research and training facilities. Accomplishments in the first two years include receipt of four awards totaling $600,000 from the Rhode Island Champlin Foundation to equip biotechnology teaching laboratories, receipt of a Federal challenge grant for a transgenics teaching facility and training, and commitment of $2.1 million toward the Slater Center of Excellence in Biotechnology at the institution.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $189,582.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In addition to the non-Federal Champlin and Slater Center funds referred to earlier, the university has funded a significant amount of renovation in the laboratories equipped by the Champlin funds, and it has absorbed the cost of developing alternative space to free space for a turf-grass business incubator facility on-campus.

Question. Where is this work being carried out?

Answer. The research is conducted on the campus of the University of Rhode Island, Kingston, Rhode Island.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion of additional or related objectives?

Answer. Currently planned interim facilities that will house the equipment purchased under this special grant are intended to meet campus needs for the environmental biotechnology core facility until a new facility is completed in 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new special grant so it has not been evaluated yet. The agency will convene a merit review panel to evaluate the project upon receipt of a proposal for fiscal year 2001.

ENVIRONMENTAL HORTICULTURE, FLORIDA

Question. Please provide a description of the research that has been funded under the Environmental Horticulture, Florida grant.

Answer. This is a new grant, and the University of Florida is preparing a grant proposal for submission.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Agriculture in the six counties of north-central Florida has suffered economically with the decline in the tobacco industry. This is a rural area with very little industrial development and so the agricultural decline has been a hardship. The environmental horticulture industry offers hope for renewed economic growth in this area.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this grant is to establish the Green Industries Education Institute. This institute will identify and promote alternative horticultural crops that can be grown in north-central Florida. Appropriate cultural techniques will be developed for these crops. Courses will be developed that will re-train the growers in this area in these techniques. In addition, a curriculum will be developed that will train workers in the skills that will be required by this new industry.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $284,373.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. In fiscal year 2000, $340,000 was appropriated by the state of Florida to develop this project.

Question. Where is this work being carried out?

Answer. The work is being carried out at the University of Florida, Florida A&M University, and the North Florida Community College.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. A peer review of the project will be undertaken by the performing institution, and the agency will conduct a thorough evaluation of the proposal once it is received.

ENVIRONMENTAL RESEARCH, NEW YORK

Question. Please provide a description of the research that has been funded under the Environmental Research, New York grant.

Answer. This research has several major goals. These are: (1) to better understand the impacts of nutrient flows, principally nitrogen, from agriculture on non-agricultural ecosystems, forests, wetlands, and water resources in mixed ecosystem landscapes; (2) to improve knowledge of agricultural contributions to greenhouse gas emissions and effects of projected climate change on crop production; and (3) to develop innovative approaches and technologies for improving the efficiency of agricultural production. New thrusts include: (1) to improve understanding of the impacts of land application of biosolids on the sustainability of New York agriculture and on water quality, and to develop management practices and guidelines for sustainable use of biosolids in New York agriculture; and (2) to evaluate spatial and temporal variability of crop yields within fields and to develop management practices that increase productivity, increase the efficiency of use of inputs, and reduce environmental impacts of agriculture.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. Programs supported by the special grant are multi-disciplinary in nature involving technical scientists from a range of disciplines, together with social scientists and economists. Due to the complexity of agriculture and environmental interactions at all levels, the needed research is complex and requires much time. Additionally, translation of knowledge from plot or field studies to larger scales, such as landscape to regional and global, is needed to provide information that is useful to policymakers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. One goal of the program is to identify impacts of nitrogen flows from agricultural lands on adjacent natural ecosystems, forests and wetlands, and water resources and to devise management strategies to minimize these impacts. Leaching of nitrogen from maize-based cropping systems has been shown to be higher when organic sources of nitrogen, manures, and plow-down alfalfa are used as nitrogen sources for crop growth compared to use of inorganic fertilizers. A computer-based nitrogen decision support system to improve recommendations for on-farm nitrogen management is being used in New York.

A second goal of the program is to investigate several interactions between agriculture and climate change. Studies of methane fluxes to/from soils showed that northern hardwood forests are both a source and a sink for this powerful greenhouse gas and overall may be a net source of methane. In contrast, upland agricultural systems were consistently found to be a sink for methane. Use of legume green manures to supply nitrogen in an organic production system increased methane emissions two-fold, creating a conflict between a sustainable agriculture practice and the environment.

No-tillage agriculture was shown to increase preservation of existing soil organic carbon, but accumulation of carbon derived from crop inputs was higher with conventional tillage. Inputs of carbon to soils from root exudates and residues were found to be more important to carbon sequestration in soils than were residues from the tops of plants.

Soil quality assessments at the Chesapeake farms sustainable agriculture project on Maryland's Eastern shore, where various cropping systems are being compared with the conventional corn-soybean rotation, have shown that soil quality improves as the cropping system becomes more complex, involves less tillage, and has more organic inputs.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 with an appropriation of $297,000. The fiscal years 1992–1993 appropriation was $575,000 per year; $540,000 in fiscal year 1994; $486,000 each year in fiscal years 1995 through 1999; $400,000 each year for fiscal years 2000–2000; and $399,120 for fiscal year 2001. A total of $5,216,120 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In fiscal year 1991, Cornell University provided $27,893 and the State of New York provided $118,014. In fiscal year 1992, Cornell University provided $37,476, and the State of New York provided $188,915. In fiscal year 1993, Cornell University provided $13,650, and the State of New York provided $243,251. In fiscal year 1994, the State of New York provided $214,989. In fiscal year 1995, the State of New York provided $233,085. In fiscal year 1996, the State of New York provided $388,301. In fiscal year 1999, the State of New York provided in excess of $400,000 to support this research and contributed approximately $300,000 in 2000.

Question. Where is this work being carried out?

Answer. This research is being conducted at Cornell University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original estimate was for a 5-year program, and many of the initial objectives in the nitrogen and climate change areas have been met. New objectives evolved from the original work, and the program was also oriented to consider broader dimensions of environmental management, particularly strategies for community-based watershed management involving linkage of technical knowledge with social and local governmental perspectives and needs. Estimated completion items for the current program that started in 1999 are:

—Watershed science and management

—Effects of elevated carbon dioxide on crop yield potential

—Remington farms sustainable agriculture project—a 10-year project

—Carbon storage in soils

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer reviewed in 1997, 1998, and 1999. Overall, the project was rated very high. The agency conducted a merit review of the project in 2000 and is planning a more formal review of the project in the coming year.

ENVIRONMENTAL RISK FACTORS/CANCER, NEW YORK

Question. Please provide a description of the work that has been funded under the Environmental Risk Factors/Cancer, New York grant.

Answer. The agency has requested the University to submit a renewal grant proposal which has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, and local need for this research?

Answer. The American Cancer Society estimated that over 182,800 women in the U.S. will be newly diagnosed with breast cancer during 2000 and that 41,200 will die from this disease. The role of environmental risk factors, such as pesticides, is of concern to women, their families, the agricultural community, and policymakers. This project, emphasizing risk reduction information, will work at filling that void.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original and continuing goals of this research are:

1. To establish and expand the database of critical evaluations on the current scientific evidence of carcinogenicity for selected agricultural chemicals. This will include writing critical evaluations on the breast cancer risk of chemicals used in agricultural settings and the role of selected agrochemicals in childhood cancer.

2. To communicate effectively information in the database to a variety of audiences, including the scientific community, Federal agencies, public health professionals, the agricultural community, and the public using printed materials and electronic formats on the Internet.

3. To ensure that the public will have access to science-based information written in non-technical language about environmental factors and the risk of breast cancer and childhood cancers.

4. To increase the knowledge and use of practical strategies aimed at breast cancer risk reduction for residents in rural areas. Efforts to address this objective will include: a) simple, attractive, printed educational materials tailored for families in rural areas; b) videotape-based educational workshops for use with groups of rural women; and c) enhancement, adaptation, and continued use of the Breast Cancer Environmental Risk Factors—BCERF—interactive display.

5. To effectively incorporate breast cancer risk reduction messages into health care and health screening settings in rural areas with tailored printed materials and interactive display. Satellite video-conferencing and supporting web site will allow expanded efforts throughout the U.S.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997, and in fiscal years 1997–1999, $100,000 was appropriated per year; fiscal year 2000, $170,000; and fiscal year 2001, $226,501 was appropriated for a total of $696,501.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $150,000 state appropriations for fiscal year 1996; $250,000 per year in state funds were provided for fiscal years 1997 and 1998; $350,000 state funds for fiscal years 1999 and 2000; and $350,000 state funds were requested for fiscal year 2001 with two possible supplements of $150,000 each also proposed.

Question. Where is this work being carried out?

Answer. This research and outreach is conducted at Cornell University, Ithaca, New York.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This project began in April 1997. Because of the success of meeting the original objectives in New York State, BCERF efforts are being refined to address multiple community settings and tailored for regional efforts. The anticipated completion date is June 30, 2002.

Objectives met:

—The bibliographic database was established during year one and is updated and expanded each year. It currently has over 5,000 entries with over 400 added

each quarter. Also, it includes full bibliographies of all pesticide and dietary/lifestyle scientific critical reviews.

—Critical Evaluations: the breast cancer risk of nine pesticides—four in fiscal year 1997, three in fiscal year 1998, and two in fiscal year 1999—have been completed. The completion of two additional critical evaluations is anticipated by the end of the current fiscal year. One critical evaluation was published in a peer-reviewed journal and four other manuscripts submitted for publication.

—Science-based information material—fact sheets—have been developed for the nine pesticides and for multiple pesticide-related issues. Also, fact sheets were developed on diet/hormone/lifestyle breast cancer risk factors and general information on breast cancer. Seven additional fact sheets are to be developed in the current fiscal year.

—Two video teleconferences and an in-service have been held and evaluated. Follow-up telephone surveys of 1997 facilitators at BCERF satellite video conference downlink sites and participants at the June 1997 on-campus training program was completed. These results informed the design of the rural initiative and prepared the program for broader videoconferencing.

—The interactive computer Rural Exhibit was completed and evaluated in 1999. It was enhanced, refined, and used broadly this year.

—The BCERF web site was revamped and relaunched in 1997–1998. The number of browsers accessing the BCERF home page rose from approximately 400 hits per month during the summer of 1998 to over 1,000 hits in November 1998 and 3,490 hits in December 1998. Hits remain with an average of about 3,000 per month.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. As a relatively new project, a complete evaluation has not been conducted, although the proposal is currently under review. Periodic progress reports have been made throughout the year. The project is moving towards achieving its desired goals. A final evaluation will be made after June 30, 2001. BCERF has evaluated most components of the program, with further evaluation planned. To date, BCERF has done an evaluation of the video teleconferences and in-service and has had the pesticide fact sheets reviewed by focus groups—breast cancer survivors and women not having breast cancer. The participants brought a variety of perspectives to the discussion, providing BCERF with a wealth of important feedback on our fact sheets and educational approach. Some of the conclusions drawn from this evaluation have already resulted in simple changes made in the preparation of current fact sheets. Other feedback from this evaluation will inform planning efforts for the education component in general.

Evaluation played a key role in the development of the interactive computer rural exhibit. To develop the exhibit, qualitative and quantitative information was gathered about the knowledge, attitudes, and beliefs of rural women regarding environmental risk factors and breast cancer. In addition, BCERF conducted brief surveys of rural women attending several rural conferences and events. The complete exhibit was tested at two farm shows and the New York State Fair in Fall 1999, partnering with professionals and organizations such as those providing mobile mammography. An adapted, more mobile version, was tested in four New York State counties. To evaluate the value of critical evaluations to scientists and Federal agency personnel, a fax-back survey was sent. The majority of respondents—82 percent—found the critical evaluations to be relevant to their work. This year 17 scientists have requested critical evaluations.

ENVIRONMENTALLY SAFE PRODUCTS, VERMONT

Question. Please provide a description of the research that has been funded under the Environmentally Safe Products, Vermont grant.

Answer. This research is designed to develop an environmentally-friendly wood finish coating formulation system by using whey proteins. Whey proteins are a cheese-making byproduct. If successful, the new natural and environmentally-friendly wood coating product will be used for wood painting and coating, such as furniture, toys, and other wooden crafts.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Almost all the wood finish/coating products available in the United States markets contain both environmentally-unfriendly and health hazardous ingredients, for example, methoxymethylethoxpropanol and butoxymethylethoxy-propanol. Therefore, our country needs natural and environmentally-safe wood coating products in order to protect our environment and the health of people.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop and optimize an environmentally-friendly wood finish coating formulation system by using whey protein as a binding material. This research started in the second half of 2000. Five prototype wood coating mixes have been formulated. The chemical characteristics of the formulations have been analyzed. The coating materials have been applied on experimental wood samples. A workshop has been built which is designed for this project. The mechanical properties of the coating on wood samples will be studied.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000. The appropriation for fiscal year 2000 was $170,000 and for fiscal year 2001 is $245,459. The total amount appropriated is $415,459.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. A total of $4,000 was provided by Vermont Wood and Dairy Industries for preliminary studies.

Question. Where is this work being carried out?

Answer. This work is being carried out at the University of Vermont, Department of Nutrition and Food Sciences.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. The anticipated completion date for the original objectives of the project is October 2002. Some of the objectives have been met. Anticipated completion date of additional objectives is October 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is in accordance with the mission of the agency.

EXOTIC PEST DISEASES, CALIFORNIA

Question. Please provide a description of the research that has been funded under the Exotic Pest Diseases, California grant.

Answer. This is a new grant. CSREES has requested that the university submit a grant proposal that has not yet been received. The principal investigator has indicated that the grant will be awarded on a competitive basis to scientists at a number of universities.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. Exotic and invasive pest species are a severe national, regional, and state problem. In California, recent invasive species include the glassy-winged sharpshooter that vectors Pierce's disease, Formosan subterranean termite, red imported fire ant, Africanized honey bee, giant Arundo, scotch broom, burrowing nematode, rice blast disease, Chinese mitten crab, and many others. Pierce's disease threatens the state's $33 billion grape industry and has caused an estimated $12–14 million loss in the Temecula grape-producing region over the last year.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new grant. The proposal has not yet been received and the work has not yet begun. The goal of this research is to fund research on exotic pest diseases affecting California agricultural, urban, and natural systems.

Question. How long has this work been underway and how much has been appropriated by fiscal year through 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for the fiscal year is $1,247,250.

Question. What is the source and the amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: California commodity boards fund approximately $400,000 per year in research on invasive species; and the State of California funds approximately $600,000 per year in fruit fly research. The total non-Federal funds and sources provided for this grant were as follows: $600,000 state appropriations and $400,000 miscellaneous in fiscal year 2001.

Question. Where will this work be carried out?

Answer. California will conduct this research through a competitive grants program with a majority of the research on endemic exotic species to be done in California. Some research may be done in Texas, Florida, or Hawaii by USDA co-investigators in cooperation with University of California scientists.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or elated objectives?

Answer. The anticipated completion date for the original objective is the end of fiscal year 2005.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is the first year for this project, and it has not yet been reviewed.

EXPANDED WHEAT PASTURE, OKLAHOMA

Question. Please provide a description of the research that has been funded under the Expanded Wheat Pasture, Oklahoma grant.

Answer. This project was designed to develop improved supplementation programs and new systems for technology delivery to reduce production risk of raising cattle on wheat pasture. The work involves evaluation of grazing termination date on grain and beef production, assess the impact of wheat cultural practices, and develop an economic model to evaluate alternative decisions on grain/beef production. Additional effort is directed toward development of cool season perennial forage grasses to complement wheat pasture.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that this work addresses the needs of wheat/cattle producers of Oklahoma as a primary focus. However, it would appear to have application regionally in adjacent wheat growing states.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop economically-viable management systems for use of wheat for supplemental pasture for beef cattle before the crop starts making grain. This work has already shown how the use of feed supplements can increase net profit from cattle grazing on wheat pasture. The study has identified management practices, e.g. date of planting, cultivar selection, grazing intensity, and date of cattle removal that produce the optimum grain yield and cattle gain. A Wheat/Stocker Management Model has been developed as a decision aid to help producers assess income risk in the operation. Work is underway on a Wheat Grazing Systems simulation model.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1989 and appropriations were as follows: fiscal year 1989, $400,000; fiscal year 1990, $148,000; fiscal year 1991, $275,000; fiscal years 1992–1993, $337,000 per year; fiscal year 1994, $317,000; fiscal years 1995–2000, $285,000 each year; and fiscal year 2001, $292,355. A total of $3,816,355 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $175,796 state appropriations in 1991; $174,074 state appropriations in 1992; and $236,584 state appropriations in 1993. The non-Federal support for 1994 was $238,058 for state appropriations. Funds for fiscal year 1995 were $275,426, for 1996 were $120,000, for 1997 were $190,510, for 1998 $224,500, for 1999, $222,650, and for 2000, $234,000.

Question. Where is this work being carried out?

Answer. The research is being done at Oklahoma State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This project started in 1989 with a projection of 10 years to complete the research objectives. Some objectives are nearing completion while others will require further study. A number of wheat cultivars have been identified which will tolerate grazing and still produce economic grain yields. The grazing cut off date for grain production has been established. However, year to year variation need additional study in order to develop a reliable decision support system. The revised projected completion date is 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This program is reviewed annually. Each year's funding cycle is peer reviewed internally and by CSREES National Program Leaders for scientific merit and relevance. Results from this project are currently being used by ranchers to help with management decisions concerning stocker cattle grazed on wheat that will be harvested for grain. Current work is designed to refine the current information and identify wheat cultivars and grazing management for optimum economic return.

EXPERT IPM DECISION SUPPORT SYSTEM

Question. Please provide a description of the research that has been funded under the Expert Integrated Pest Management Decision Support System grant.

Answer. A prototype information and decision support system was developed in collaboration with Purdue University and the U.S. Department of Energy's Argonne National Laboratory that integrates and manages information from multiple data sources. Development of this system now continues with the collaboration of the Office of Pest Management Policy—OPMP—and the National Science Foundation Center for Integrated Pest Management at North Carolina State University. Components of the Pest Management Information Decision Support System—PMIDSS—include information on the U.S. Environmental Protection Agency—EPA—review status of pesticides, crop losses caused by pests, status of minor use registrations, current research in progress, and priorities of integrated pest management implementation teams. PMIDSS data, along with OPMP and Pesticide Impact Assessment Program—PIAP—crop profiles, provide the background information that is critical to the development of commodity-specific Pest Management Strategies in response to Food Quality Protection Act-driven regulatory decisions.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. When fully operational, PMIDSS will serve national, regional, and local needs for research and extension activities. At the national level, the system supports the USDA and EPA Memorandum of Understanding to identify crop protection gaps and to find alternatives to pesticides either under Food Quality Protection Act regulatory review or those being lost due to pest resistance. The system will assist in the identification of priorities for the Pest Management Alternatives Program, Crops at Risk from Food Quality Protection Act—FQPA—Implementation and the Risk Avoidance and Mitigation Programs, and regional Integrated Pest Management—IPM—Special Grants and Special Projects. With the new implementation of the USDA Regional Pest Management Centers, PMIDSS technology is critical to the information needs of these Centers. It will provide a mechanism for decision transparency and for all stakeholders to interact with the priority setting process. The ultimate result will be to help insure that farmers have adequate alternatives for managing pests at the specific local level.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of PMIDSS was to refine the process of identification for Integrated Pest Management needs of the UDSA, EPA, and states. This goal reinforces the state and Federal partnerships to disseminate important pest management information for improved decision making and environmental quality, and to address future needs. In 1996 and 1997, the program addressed priority commodity pest management needs resulting from voluntary pesticide cancellations and regulatory cancellations, responding to the Memorandum of Understanding, and supplemental Memorandum of Understanding between the USDA and EPA. The supplemental Memorandum of Understanding was signed in April 1996, at which time there were 58 pesticides and 374 uses identified and prioritized. The process included information on cancellations furnished by EPA. Selected uses were sent to the states' Pesticide Impact Assessment Program and Integrated Pest Management networks. Impacts of cancellations affecting individual states were reported for inclusion in the decision support system. Twenty-five minor use crops on which 40 specific pests were identified in the 1997 Request For Proposals. Results were also used by the regional IPM grants program Request For Proposals. In 1999, information sources from PMIDSS were used as source material for the development of a number of Crop Profiles. In 2000, the Crop profile use continued and the pest management Strategic Plans also accessed components of PMIDSS for baseline information. PMIDSS had undergone a complete rewrite during this last 2 years. PMIDSS was originally begun prior to the initiation of the World Wide Web. It has now been rewritten, using Java and Cold Fusion Structured Query Language queries, with all data now stored on a Structured Query Language Windows NT server. This means

that no software other than the standard browser is required to access the information. All of the time-sensitive data has been updated and a searchable database of the new Pest Management Strategic Plans has been developed. Presently, user-customizable interfaces are being developed.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001.

Answer. This work began in 1994, with CSREES administrative funding. In fiscal year 1995, $172,000 was appropriated. In fiscal year 1996, we expended $177,000 in a cooperative agreement with Purdue University and Argonne National Laboratory from Pest Management Alternative Special Grant Funds, $21,000 from Research, Extension, and Education Evaluation Funds, and $40,000 from PIAP. In fiscal years 1997–1998, we expended $165,425 and $177,000 to Purdue University and Argonne National Laboratory. In fiscal years 1999 through 2000 we expended $177,000 per year and in fiscal year 2001, $176,611 was appropriated to go to North Carolina State University Center for IPM to make the system web-based and provide access to multiple databases.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds support the Pest Management Information Decision Support System.

Question. Where is this work being carried out?

Answer. Presently, the bulk of the work is carried out in Washington, D.C. and in Raleigh, North Carolina. CSREES has National Program Leaders in IPM, PIAP, and Inter-regional Project-4 program areas working on the PMIDSS. The Center for Integrated Pest Management at North Carolina State University manages the web server where the pest management information system is located and is developing the multiple concurrent database search and decision support capability. Interaction and information is provided by every state in our system. We are in the process of strengthening the role of Land Grant partners in this program, and additional database access is being developed through the Center for Integrated Pest Management, at North Carolina State University and through a sub-contract with George Mason University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated complex date of additional or related objectives?

Answer. Our original estimate was two to three years with adequate resources to complete the developmental work. However, the design considerations became more complex with the 1996 passage of FQPA. Program needs dictated an expansion and change in information bases. In addition, the web technology that was unavailable in 1994 is now a major and needed part of the program strategy. We feel we are reasonably addressing FQPA objectives with available resources and this effort may need to become an ongoing activity USDA.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. PMIDSS underwent a formal review in June 1997, and a major piece of the system, the Pest Management Alternatives Program WorkBench, was reviewed by regionally-selected land grant scientists and others in November 1997. In August 1998 a progress review evaluated the engineered software product and determined the need for a web accessible multiple database search and look-up function for the system. A concept review held in September 1998 demonstrated the functionality of a web-based decision support system. The June review recommendations included: focus the system on the needs of the Pest Management Alternatives Program, timely delivery of the software product to USDA, and development of a plan to sustain the system in a user-friendly, widely-available format. The November evaluation of the WorkBench brought the following comments and recommendations: the WorkBench provides good linkages to relevant databases and brings together essential information on pest management issues; the system should be placed on the World Wide Web for greater access and utility; tell potential users that it is available; and invest in high quality databases to support and enhance data integrity of the WorkBench. Development now focuses on the needs of the Pest Management Alternatives Program, Crops at Risk Program, Risk Avoidance and Mitigation Program, the requirements of FQPA and an easy-to-use interface for data search and access. Data access is focused on current and transparent databases to address critical FQPA needs.

FARM INJURIES AND ILLNESSES, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Farm Injuries and Illnesses, North Carolina grant.

Answer. CSREES has requested the university to submit a grant proposal that has not yet been received. It is anticipated that it will request funding for research on health and safety issues in agriculture, forestry, and fisheries models for future interventions and outcomes evaluation. The initial research focus in this funding period would be heat exposure of field workers and supervisors and the resultant risk of heat exhaustion.

Question. According to the research proposal, or the principal researcher, what is the national, regional, and local need?

Answer. The dominant rural occupations in North Carolina are agriculture, forestry, and fisheries. North Carolina has the second largest number of farmers in the U.S. Agriculture employs 21 percent of the state's workforce. Agriculture, forestry, and fishing are three of the four most dangerous occupations in the U.S. Agriculture, forestry, and fisheries specific occupational illness and injury include: death due to trauma, heat stroke, amputations, musculoskeletal disorders, skin cancer, hearing loss, chronic respiratory problems, infectious disease, emotional stress, and toxic pesticide related illness. This population is often underserved medically because of geographic isolation, economic constraints, and sometimes lack of understanding about the need for health care. We have very little data about the health problems of this population. Current health statistics available in North Carolina do not identify occupation. Though individuals in these industries have many problems common to other rural citizens, they are exposed to unique occupational and environmental hazards that can lead to health problems not seen in others.

There is no hard data on the magnitude of heat stroke in field workers from surveys, emergency room visits, or death certificates. Reporting of heat stroke death in North Carolina is not mandatory unless there are five deaths from a single event. Under high heat index conditions, heat illness escalates from self-treatable to true medical emergency over a few hours. It is poorly understood and often mismanaged. There are numerous interactions with medications, alcohol, and drugs that exacerbate heat related illness. Older farmers and workers are at much higher risk. Since heat related illness is preventable, there is a real need to both increase awareness and determine instantaneous risk of heat illness in the field.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. Preliminary planning is underway. The goals of the research are to: (1) evaluate the factors involved and the role each plays in heat related illness, (2) research existing methods and develop a comprehensive database for capturing data on heat exhaustion and other health problems unique to this population, and (3) develop a plan for intervention based on the outcome of the field research.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. Sources of any non-Federal funds will be identified in the grant proposal.

Question. Where is the work being carried out?

Answer. The field operations for this research project will be carried out on eastern North Carolina farms. The work will be done collaboratively by faculty and staff located at East Carolina University, North Carolina Agricultural and Technical University, and North Carolina State University.

Question. What was the anticipated completion date for the original objectives of this project? Have them objectives been met? What is the anticipated completion date of additional or related objectives.

Answer. The anticipated completion date is one year from receipt of the award.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project. An agency review will be conducted prior to awarding the grant.

FEED BARLEY FOR RANGELAND CATTLE, MONTANA

Question. Please provide a description of the research that has been funded under the Feed Barley for Rangeland Cattle, Montana grant.

Answer. This project supports research on the nutritional value of barley cultivars as feed for beef cattle. This research will assist the breeding and selection of superior barley types that can be more competitive with other feed grains and improve farmer income from barley crops grown in rotational systems in the Northern Great Plains. The project was subjected to a merit review.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Barley is grown extensively as a feed grain in the U.S. Based upon both chemical analysis and the experience of some cattle feeders, the principal investigator believes barley should have a feed value on a par with corn or wheat. Currently, barley is listed as inferior to both corn and wheat in feed hand books and is, therefore, discounted in the feed market. Comprehensive feeding studies of various barley types will be conducted to document the value as a feed grain for beef cattle.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The research has examined the use of laboratory analysis of barley for predicting feeding quality for beef cattle. They have identified several characteristics, including particle size and starch content, which are important in feed quality. They have then used some of this information to select among barley strains for best feeding quality. They have now determined that marker-assisted selection of barley varieties will be a viable approach to incorporating feed quality into a barley breeding program.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1996 with an appropriation of $250,000; for fiscal year 1997, $500,000; for fiscal years 1998 and 1999, $600,000 each year; for fiscal year 2000, $637,500; and for fiscal year 2001, $692,473. The total appropriation is $3,279,973.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds for this project were $160,000 in 1996, $174,500 in 1997, and $168,000 in 1998. No information is available for 1999, 2000, or 2001.

Question. Where is this work being carried out?

Answer. Research is being conducted at Montana State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Completion of the original objectives is anticipated in fiscal year 2001. Integration of findings into management systems is expected by fiscal year 2005 with outreach and information dissemination completed by fiscal year 2010.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project is evaluated annually. It undergoes a scientific merit review by two Department Heads and three peer faculty members. It is reviewed again by a CSREES National Program Leader upon submission to the agency.

FISH AND SHELLFISH TECHNOLOGIES, VIRGINIA

Question. Please provide a description of the research that has been funded under the Fish and Shellfish Technologies, Virginia grant.

Answer. The agency has requested that the university submit a grant proposal that has yet to be received. The project will be initiated in fiscal year 2001. The project will focus on minimizing effluents from commercial recirculating aquaculture systems, aiding commercial fish producers in intensifying their production capacity, and characterization of solid and liquid wastes from intensive aquaculture production systems.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The investigators indicate that there is a regional and national need to advance recirculating system technologies and to enhance waste management in these systems in order to develop environmentally-compatible aquaculture systems and management practices. In addition, intensification of aquaculture production systems will become increasingly important in areas with limited water supplies. This research could have significant impact on the future of domestic seafood production reducing dependence on foreign products. The researchers indicate that the research goals and objectives are consistent with those outlined in the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to enhance the economic viability and environmental compatibility of intensive aquaculture production systems as alter-

native agricultural enterprises. To achieve these goals, researchers will characterize effluent discharges from commercial fish farms in Virginia, develop design criteria to enhance intensification of commercial fish farm with limited water supplies, and conduct studies to minimize waste production in commercial scale recirculating aquaculture systems. This project will be initiated in fiscal year 2001.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $473,955.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates in excess of $50,000 of non-Federal funds will be made available in fiscal year 2001 coming primarily from state and other sources.

Question. Where is this work being carried out?

Answer. The research will be conducted through the Virginia Agricultural Experiment Station, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, and in collaboration with private aquaculture producers in Virginia.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the fiscal year 2001 grant is fiscal year 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the proposal once it is submitted.

FLORICULTURE, HAWAII

Question. Please provide a description of the research that has been funded under the Floriculture, Hawaii grant.

Answer. The research carried out with these funds involves wholesale and retail U.S. and Japan market research, development of new varieties for aesthetic values and pest resistance, and pest management strategies to meet quarantine needs and consumer expectations.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The researcher believes the tropical cut flower and foliage industry in Hawaii, which includes anthurium, orchids, flowering gingers, bird of paradise, heliconia, protea, and cut foliage is worth over $50 million primarily in out-of-state sales. Development of disease resistant cultivars and quarantine pest management strategies that reduce pesticide usage are high priority issues at the national and international level.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was to develop superior Hawaii anthuriums, orchids, protea, and exotic tropical flower varieties with disease resistance, particularly to anthurium blight which devastated the Hawaii anthurium industry through the mid-1980's and reduced Hawaii's market share. Additionally, research focused on development of post-harvest handling practices and quarantine pest control. To date, a new anthurium cultivar has been patented and released. Additional blight resistant cultivars are being propagated and tested by the anthurium industry. Disease resistant protea germplasm has been obtained from South Africa and is being used in the protea breeding program. A post-harvest hot water dip treatment has been developed and is being used commercially on tolerant cut-flower species to meet quarantine requirements.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $300,000; fiscal years 1990–1993, $296,000 per year; fiscal year 1994, $278,000; fiscal years 1995–2000 $250,000 each year; and fiscal year 2001, $249,450. A total of $3,511,450 has been appropriated since 1989.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: State appropriations of $87,937 in 1995, $56,680 in 1997, and $62,600 in 1998 for a total of $207,217 since 1995.

Question. Where is this work being carried out?

Answer. Research is being conducted by the University of Hawaii at Manoa and Hilo.

Question. When was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The objectives in the original project were to maintain Hawaii floricultural industry competitiveness. This objective continues to be the principal direction for the projects. Because the industry and the markets are changing, pests are becoming resistant and newer strains are emerging. As quarantines requirements continually change, the need for new technologies continue, the objective remains valid and the need for this research continues.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The individual projects funded under this Special Research Grant are annually evaluated by a panel of peers prior to awards. Each project goes through a merit review within their own institution to ensure that good science is being used. In addition, the principal investigator and the Acting Dean and Director of the College of Agriculture in Hawaii met with the CSREES liaison to this project on April 17, 2000, in Washington, DC. The project accomplishments were reviewed and the research objectives and performance goals for fiscal year 2000 were presented, justified and discussed. Future research needs and related production issues were also discussed. The principal investigator demonstrated good progress, strong leadership and judicious use of project funds. The review also allowed the Federal partner to provide input to the direction of the project and for the state scientists and administrators to demonstrate the accomplishments, competency, and merit of this grant that they manage.

FOOD AND AGRICULTURE POLICY RESEARCH INSTITUTE, IOWA AND MISSOURI

Question. Please provide a description of the research that has been done at the Food and Agriculture Policy Research Institute, Iowa and Missouri program.

Answer. The Food and Agriculture Policy Research Institute—FAPRI—was established by Iowa State University and the University of Missouri, Columbia, in 1984. The purpose of the Institute is to conduct comprehensive analysis and disseminate results about the economic impacts of U.S. food, farm, and trade policies to agricultural producers, agribusinesses, and public policymakers. Iowa State conducts research on the economic interrelationships within and between domestic and foreign food and agricultural markets from the farm gate to market destinations; develops and maintains databases and analytical support systems to facilitate the analysis of agricultural and trade policy issues; and evaluates the impacts of U.S. and foreign commodity supply, demand, and public policy programs on agricultural trade. The University of Missouri maintains models of the domestic agricultural economy and directs its efforts primarily to the analysis of domestic policy issues. The two universities maintain linkages with a number of other universities who provide data and analytical support to the system.

The universities maintain a comprehensive analytical modeling system of the U.S. and international food and agricultural sectors to evaluate near and long-term economic implications of alternative farm policies for the basic commodities. Each year, and more often if conditions require, the system is used to provide economic information on potential impacts out to 10 years in the future of farm policies on farm prices, income, output, government program costs and means to enhance the management of farm programs at the national level.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local need for this research?

Answer. The Nation's agricultural sector and its components are subject to numerous Federal policies and programs. FAPRI is the only publicly-supported, non-Federal organization with the analytical capability to assess and evaluate the numerous public policies and programs affecting the agricultural sector and report results to a broad constituency including farmers, agribusinesses, and Federal and State policymakers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was to develop the analytical capability to assess and evaluate U.S. farm policies on the U.S. agricultural sector, and disseminate this information to farmers, farm and other agricultural organizations, and public policymakers. The mission has been expanded to include assessment of trade and environmental policy impacts and their interaction with the agricultural sector at national, regional, and farm levels. The models in place are also used to assess fiscal and

monetary policy implications and impacts of new technologies such as biotechnological innovations on the agricultural sector.

Both institutions maintain large econometric models and data sets which are regularly updated to analyze farm and trade policy alternatives and the impacts of various programs on the several sub sectors of the agricultural economy. This update was especially valuable for conducting analysis to assess policy options for the 1996 farm bill. During the past year, FAPRI completed 35–40 studies addressing policy issues such as assessments of the 1996 Farm Bill, alternative ethanol programs, USDA's proposed milk market order reform, U.S.-Canada agricultural trade, the importance of fast track to U.S. agriculture economic recession in the Middle East, and the economic meltdown in Russia. Numerous studies were completed addressing improvements made to the empirical modeling system to improve domestic and international policy capabilities. The FAPRI staff has made numerous public appearances throughout the U.S. to agricultural groups and Congressional committees and Executive branch groups addressing policy issues.

Question. How long has the work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal years 1984–1985, $450,000 per year; fiscal years 1986–1987, $357,000 per year; fiscal year 1988, $425,000; fiscal year 1989, $463,000; fiscal year 1990, $714,000; fiscal years 1991–1993, $750,000 per year; fiscal year 1994, $705,000; fiscal years 1995–1996, $850,000 each year; fiscal years 1997–2000, $800,000 per year; and fiscal year 2001, $947,910. The total amount appropriated is $12,018,910.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $260,355 State appropriations, $113,565 industry, and $37,913 miscellaneous for a total of $411,833 in 1991; $321,074 State appropriations, $51,500 industry, and $35,100 miscellaneous for a total of $407,674 in 1992; $234,796 State appropriations and $70,378 industry for a total of $305,174 in 1993; $78,286 State appropriations, $43,925 industry, and $29,750 miscellaneous in 1994 for a total of $151,961 in 1994; $80,155 State appropriations, $37,128 industry, and $42,236 miscellaneous for a total of $159,519 in 1995; $124,123 in State appropriations with no other funding for 1996; $79,000 in State appropriations, $50,000 industry, and $25,000 miscellaneous for a total of $154,000 in 1997; and $88,800 State appropriations, $75,200 industry, and $34,687 miscellaneous for a total of $198,687 in 1998.

Question. Where is this work being carried out?

Answer. The program is carried out at the Center for Agriculture and Rural Development, Iowa State University and the Center for National Food and Agricultural Policy, University of Missouri.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is a continuing program of research and analysis for the purpose of assessing farm and related policy actions and proposed actions likely to affect the agricultural sector and its components.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The annual proposal is carefully reviewed by the CSREES program leader for adherence to stated objectives and progress before the special research grant is awarded. It is also peer reviewed prior to its submission. No formal evaluation of this program has been conducted.

FOOD IRRADIATION, IOWA

Question. Please provide a description of the research that has been funded under the Food Irradiation, Iowa grant.

Answer. Since the Linear Accelerator Facility was placed in operation in March 1993, studies on the effect of irradiation on shelf-life extension, safety and quality of ground beef, beef steaks, ham, pork chops from loins, chicken breasts, and turkey have been conducted. Studies combining irradiation with high hydrostatic pressure and cooking using whole chicken breasts, turkey, and ham, have been conducted to determine the combination of these treatments that will yield a shelf-stable product while maintaining high eating quality. Several studies were conducted to determine whether consumers can detect a difference between irradiated and non-irradiated ground beef patties. Experiments were also conducted to investigate consumer acceptance of pork products irradiated to prevent trichinosis. Test markets of irradiated chicken breasts were conducted to determine consumers' willingness to pay for

irradiated products. Studies on the effect of packaging materials on quality of irradiated meat have been completed. Quality changes in ready-to-eat meat and poultry products irradiated to control Listeria are under investigation. The fiscal year 2000 funds are supporting research from May 1, 2000 through June 30, 2001. A proposal in support of the fiscal year 2001 appropriation has been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes consumers' attention and concern about the safety of fresh meat and poultry has increased with recent outbreaks of foodborne illness from E. coli 0157:H7 and Listeria monocytogenes in the past decade. The meat industry has also expressed interest regarding the quality of irradiated products and how this process can be used to yield high quality fresh meats and ready-to-eat products that are free of pathogens. The massive recall of over 50 million pounds of frankfurters and luncheon meats due to illness caused by Listeria monocytogenes contamination has resulted in huge economic losses in years 2000 and 2001. With clearance of Food and Drug Administration and USDA of irradiation of red meat—December 23, 1999—research leading to commercialization of this technology has been enhanced. Additionally, researchers from eight other research institutes have used the irradiation facility for research projects. Thus, the principal researcher believes this research to be of national, regional, and local need.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The original goal of the research was to generate knowledge necessary to develop a research and technology transfer program leading to commercial use of irradiation of foods whereby consumers would be provided with food products with enhanced safety. The effectiveness of irradiation, using an electron beam accelerator, in destroying known pathogenic bacteria in pork and beef has been determined. Mathematical models have been developed to predict the growth of bacteria in low-dose irradiated ground pork. Demonstration of irradiation technology has been presented to some commercial firms, and plans are being developed for some large scale test markets.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 when $100,000 was appropriated for this project. The appropriations for fiscal years 1992 and 1993 were $237,000 per year; fiscal year 1994, $223,000; fiscal years 1995–1997, $201,000 each year; fiscal years 1998–2000, $200,000 per year; and fiscal year 2001, $224,505. Total appropriated for are $2,224,505.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. The project received $1,037,270 in State of Iowa funds—$1 million of which was for capital construction—in fiscal year 1991; $37,942 in state funds and $67,800 in industry grants in fiscal year 1992; $68,897 in state funds, $78,300 in industry grants, and $9,666 in user fees in fiscal year 1993; $70,652 in state funds, $35,420 in industry grants, and $47,788 in user fees in fiscal year 1994; $72,772 in state funds, $100,000 in industry grants, and $55,211 in user fees in fiscal year 1995; $81,540 in state funds, $115,300 in industry grants, and $50,963 in user fees in fiscal year 1996; $77,963 in state funds, $253,450 in industry grants, and $46,550 in user fees in fiscal year 1997; and $100,200 in state funds, $205,900 in industry grants, and $36,200 in user fees in fiscal year 1998; $125,000 in state funds, $213,800 in industry grants, and $34,900 in user fees in fiscal year 1999; and $109,000 in state funds, $115,000 in industry grants, and $48,300 in user fees in fiscal year 2000. Information for fiscal year 2001 is not available at this time.

Question. Where is this work being carried out?

Answer. Research is being conducted at Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The principal investigator anticipates that the project's original objectives will be met within a few years after the USDA final rules are issued for ready-to-eat meat and poultry products.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A review of the proposal supporting the fiscal year 2000 appropriation was conducted on May 23, 2000. Previous studies funded under this project have provided useful information toward understanding how irradiation can be useful in eliminating or reducing foodborne pathogens in meat products. It is anticipated that

the proposed research will continue to further the understanding of how irradiation can be used to improve shelf-life and enhance safety of meats and meat products.

FOOD MARKETING POLICY CENTER, CONNECTICUT

Question. Please provide a description of the research done under the Food Marketing Policy Center, Connecticut grant.

Answer. The Food Marketing Policy Center was established in 1988 at the University of Connecticut at Storrs. The Center seeks to improve the performance of the food production and marketing system by conducting research on food and agricultural marketing and related policy questions. The Center is primarily an economic research organization, but it conducts interdisciplinary research as appropriate and it communicates results to the public. Key users include farm and consumer organizations, agricultural business firms, public agencies, state legislatures, and the U.S. Congress. The research proposal was subject to an administrative review and a peer review by the university prior to submission to CSREES.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The research addresses an ongoing national need to monitor the performance of the U.S. food system and to recommend policies that improve performance for the benefit of farmers, merchants, processors, and consumers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The ongoing research goal is to identify marketing problems and assess alternatives that improve economic performance of the U.S. agricultural and food marketing sector. The Center serves as a core research group for Multi-State Research Project NE–165, Private Strategies, Public Policies, and Food System Performance. The research agenda includes industrial organization, strategic marketing, economics of food safety, cooperatives, and public policy, including antitrust and regulation.

The Center is a prolific provider of high quality theoretical and empirical work, and makes significant scientific, management, and policy contributions. The Center has prepared over 50 working papers, 40 policy research reports, 20 policy issue papers, 8 books and numerous chapters, a number of MS and PhD theses, and has distributed scientifically-important research articles to researchers, industry, Federal and state legislators, and decision makers.

This grant supports research projects in two problem areas: impacts of changes in strategies, technologies, consumer behavior, and policies on the economic performance of the food system; and impacts of private and public strategies on improvements in food safety and quality. Recent accomplishments include: evidence that more concentrated retail markets have higher retail prices, brands with greater market share have greater ability to raise prices, residents in low income areas lack comparable access to retail stores. Forthcoming reports examine the impact of Walmart supercenters on local markets; milk pricing policies in the Northeast; the ability of firms to differentiate their products based on safety or process—e.g. animal welfare, ecological impact, organic—attributes; and the impact of sanitary/phyto-sanitary—SPS—and technical trade barriers on food quality/safety/price attributes available in the U.S. and other countries. Expert testimony before the Federal Trade Commission and state attorneys general has resulted in tougher antitrust enforcement, and has caused at least one firm to withdraw from a retail megamerger. The Center maintains an extensive database, including special tabulations of Census data and private data, that facilitates research by a large number of university-based researchers.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1988, $150,000; fiscal year 1989, $285,000; fiscal year 1990, $373,000; fiscal years 1991–1993, $393,000 per year; fiscal year 1994, $369,000; fiscal years 1995–1998, $332,000 per year; fiscal years 1999–2000, $400,000 per year; and fiscal year 2001, $493,911. A total of $4,977,911 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are State appropriations as follows: $234,259 in fiscal year 1991; $231,741 in fiscal year 1992; $201,288 in fiscal year 1993; $234,557 in fiscal year 1994; $219,380 in fiscal year 1995; $134,399 in fiscal year 1996; $135,490 in fiscal year 1997; $164,772 in fiscal year 1998; $163,895 in fiscal year 1999; and $343,302 in fiscal year 2000.

Question. Where is the work being carried out?

Answer. The research is being carried out at the University of Connecticut and the University of Massachusetts.

Question. What was the anticipated completion date for the original objectives of the projects? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1987 was for 24 months. According to the principal researcher, the objective of conducting policy-oriented research on food manufacturing and distribution industries to assist state and Federal policy makers in improving the performance of the food system is still an ongoing public concern, given increasing levels of concentration in food processing. The current phase will be completed in 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in April 2000, as it evaluated the 2000 project proposal. The review noted that: "The stated objectives, addressed through nine continuing projects and one new one, are scientifically valid, and the procedures specified for each are appropriate. The Principal Investigator and associated researchers are nationally and internationally recognized and are clearly competent to execute this project."

FOOD PROCESSING CENTER, NEBRASKA

Question. Please provide a description of the research that has been funded under the Food Processing Center, Nebraska grant.

Answer. The University of Nebraska Food Processing Center has been conducting short-term, highly-applied research projects to assist small and mid-sized food processing companies and entrepreneurs to develop or improve processes and products and to develop new food processing enterprises. Projects were selected based on the estimated economic impact of the technical assistance or the criticality of the technical assistance to the future of the firm or venture. Priorities were placed on projects relating to the safety of the food product or process and to the fulfillment of regulatory mandates such as nutrition labeling, use of approved and effective ingredients, and adherence to regulations imposed by foreign governments. In addition, several research projects were conducted to improve or assess the quality, extend the shelf-life, or assess or improve the processing efficiency of specialty food products which impacted several processors or used alternative agricultural products. A proposal in support of the fiscal year 2001 appropriation has been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the primary impact of this project will be statewide. Small and mid-sized food processing companies and entrepreneurs have limited technological capabilities for addressing issues related to product development, process development, product and process evaluation, food safety, quality assurance, and regulatory mandates. The short-term research and technology transfer projects conducted as part of this overall project will aid these companies in appropriately addressing these oftentimes complicated issues.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to assist small and mid-sized food processing companies and entrepreneurs to develop or improve processes and products and to develop new food processing enterprises. Technological evaluations were conducted for 89 individuals or companies interested in developing new food processing businesses. These evaluations included formulations, processes, processing equipment, packaging, shelf-life, sensory, nutritional attributes, microbiological quality, regulatory considerations, and other factors. Additionally, microbiological analyses, shelf-life assessments, sanitation audits, and nutritional analyses were conducted for numerous Nebraska food companies.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1992. The appropriations were $50,000 per year for fiscal years 1992–1993 ; $47,000 for fiscal year 1994; $42,000 per year for fiscal years 1995–2000; and $41,908 for fiscal year 2001. A total of $440,908 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. The Food Processing Center received $402,389 in state funds and $1,993,914 in food industry grants and miscellaneous sources from 1992 through 1999. Data for fiscal year 2000 are not available.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Nebraska.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. Because this project supports ongoing technical assistance to clients, the objectives are ongoing. The original objective of assisting entrepreneurs and small and mid-sized food processing companies to develop/improve products and/or processes have been successfully met.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A CSREES science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. A review of the proposal was conducted on May 24, 2000. Progress under previous grants for this project appears to be satisfactory, with numerous examples of assistance cited and summaries of short-term projects provided by the principal investigator.

FOOD QUALITY, ALASKA

Question. Please provide a description of the research that has been funded under the Food Quality, Alaska grant.

Answer. Research has been aimed at completing a number of smaller projects that have significance to seafood quality and safety in the Alaska Seafood Industry. To identify the most important projects, the investigators consulted with informed people from state and Federal agencies and from industry. The vetted projects mentioned address pertinent research needs in the area of improving seafood quality and safety. The subprojects are: (1) Bioprocessing of Marine Bacteriocins for Enhancing Seafood Safety; (2) Molecular Tracking of Listeria monocytogenes in Smoked Salmon Processing Plants for Eradication by Directed Sanitation; (3) Evaluation of Clostridium sporogenes as a Substitute for Botulism Testing of Low-Salt, Vacuum-Packaged Seafoods including smoked salmon and sujiko; and (4) Using an Electronic Nose to Improve Seafood Quality.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Seafood Industry is the largest employment sector in Alaska. Many of the small coastal communities in Alaska have a local fish packing plant that has been the major source of income in their economies. In 1998, Alaska harvested approximately two million metric tons of fish, all for human food. This is greater then 60 percent of the U.S. total for fish landings. Furthermore, if one focuses on fish harvested for human food, Alaska's share represents an even greater percentage because there are no reduction fisheries in Alaska and all harvested species are used, at least in part, for human food.

The salmon industry is regional, involving thousands of fishermen and processing workers from Washington, Oregon, California, and throughout the nation that come to Alaska to participate in the fishery. In recent years, the Alaska salmon industry has suffered economically from increased competition from international salmon farmers, mainly in Norway and Chile. They have made great inroads in many traditional markets, surpassed Alaska in salmon production, and now set the product standard in the marketplace. One key for American businesses to recapture and strengthen their salmon markets is to guarantee and promote the quality of wild Alaska salmon. This project will provide the industry with the research and information needed to accomplish this.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The original goal of this research was to ensure a consistent and predictable level of handling and quality for Alaska seafood. In doing so, the project will help Alaska seafood processors strengthen or maintain their place in domestic and international markets. The goals for each of the subproposals are listed as follows: (1) The long-range goal is to utilize novel, natural, and safe biopreservatives to eliminate potential bacterial pathogens in seafoods. Work is in progress on the isolation of broad- and narrow-spectrum bacteriocins from new producing strains and applied to inactivate Listeria monocytogenes in minimally-preserved seafood products stored under extended refrigeration. (2) Other goals include molecular typing of L. monocytogenes strains isolated from four smoked fish processing plants in Alaska; to determine if site-directed sanitation methods reduce the incidence of the organism; and to determine if growth of inoculated C. sporogenes can be used to indicate temperature-abuse of low-salt, vacuum-packaged seafoods. Work is in progress. (3) A final goal is to: determine specific compounds that are indicators of quality loss

in fresh and frozen seafoods; train a hand-held electronic nose to recognize these early indicators of quality loss in seafoods; compare the trained electronic nose with the traditional chemical, physical, and sensory techniques used to evaluate seafood quality under controlled conditions; and to evaluate the electronic nose in an operating seafood processing plant.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999 and the appropriation for fiscal years 1999 and 2000 was $350,000 each year and $349,230 for 2001 totaling $1,049,230.

Question. What is the source and amount of non Federal funds provided by fiscal year?

Answer. The State of Alaska, the Alaska Seafood Marketing Institute, the University of Alaska, and the industry will contribute considerable personnel hours. We estimate the non-Federal contributions for the entire group of four subproposals is approximately $25,000–$30,000.

Question. Where is this work being carried out?

Answer. The work will be administered at the University of Alaska Fairbanks. Field work will be carried out in numerous Alaska fishing communities.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The anticipated completion of the full objectives of this research is one year from date of the award.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project application was reviewed for merit by a CSREES specialist on August 3, 2000. Progress for the previous grant is satisfactory. Research on the use of marine bacteriocins, molecular biology of L. monocytogenes, and using electronic nose to test seafood quality appeared satisfactory.

FOOD SAFETY, ALABAMA

Question. Please provide a description of the research that has been funded under the Food Safety, Alabama grant.

Answer. Auburn Research Centers Food Safety Program is developing a method of food inspection that involves the placement of a sensor chip on food items. The goal is for these chips to automatically inventory and assess the safety at any point from source to consumption of appropriate fresh food products sold in the U.S.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Most food-borne illness can be attributed to bacteria. The sensor chips developed at Auburn University will target detection of the bacteria that causes most of these illnesses. This technology could result in financial savings nationally, regionally, and locally through the prevention of food-borne illness and its related costs. Up to 33 million Americans become ill each year from food borne disease. Estimates indicate that as many as 9,000 of these individuals will die with another one million suffering permanent disabilities. The USDA estimates that foodborne illness costs the U.S. economy $14.2 billion in lost productivity annually. This project will improve the safety of our food supply chain leading to an improved quality of life for every citizen and resident of the U.S. In addition to these costs to the public and the nation, the costs to industry of settling civil litigation due to foodborne disease can be immense. The 1993 Jack-in-the-Box hamburger incident, which infected 433 individuals, resulted in lawsuit settlements of $126 million dollars. This research when implemented should greatly reduce the incidence of foodborne illness.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this project is to reduce the incidence of food-borne illness through the use of a sensor chip that will assess the safety of food items as they move through the food chain. Already to date, the researchers have demonstrated a new method for the detection of Salmonella bacteria that has the potential to greatly reduce detection times. Current industrial methods require that a sample of suspect food be taken to the laboratory where tests require a minimum of 6 to 48 hours to determine a food is safe to eat. The new technology can identify harmful levels of Salmonella bacteria in a few minutes and will be packaged as a portable hand-held unit that may be used on the food production line. Additionally, Auburn University has demonstrated a working stamp-sized radio frequency identification sensor tag that can be used to automatically inventory and trace food within

seconds. This tag stores information from farm to its final destination and can be interrogated to rapidly provide information to identify the source of a contamination or food problem should it be detected at a latter date downstream.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in June 1999. The appropriation for fiscal year 1999 was $300,000; for fiscal year 2000, $446,250; and for fiscal year 2001, $519,854. A total of $1,266,104 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. Expenditures of non-Federal funds from state and corporations totaled $577,350 in fiscal year 2000 and $674,890 has been allocated for expenditure in fiscal year 2001. This will bring the total of non-Federal funds to $1,252,240 for the first two years.

Question. Where is this work being carried out?

Answer. Research is being conducted at Auburn University through the Auburn Research Center for Detection and Food Safety.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The project is part of a 10-year program to develop and implement an entirely new sensing and information technology for the detection of foodborne pathogens. Annual objectives are set for each year. All objectives for year one were exceeded or met. Already the project has completed 50 percent of the second year objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The interim results of the project were reviewed during a meeting with the Project Investigator in October of 2000. The interim results of the research were found to be satisfactory.

FOOD SAFETY RESEARCH CONSORTIUM, NEW YORK

Question. Please provide a description of the research that has been funded under the Food Safety Research Consortium, New York grant.

Answer. This is a new project to be started in fiscal year 2001. Research related to food safety research will be supported by this grant. CSREES has requested the university to submit a proposal in support of fiscal year 2001 funds, which has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This project will develop improved methods to help the food industry control contamination with the bacterium Listeria monocytogenes. This bacterium causes serious foodborne disease in humans and is responsible for an estimated 500 foodborne deaths annually in the U.S. The presence of this bacterium is also commonly responsible for costly food recalls, even though many contaminated food products may not cause human disease. There is a national need to develop tools that will help food processors to prevent contamination of their products with this bacterium and to understand which types of Listeria monocytogenes may cause disease when present in foods.

Question. What is the original goal of the research and what has been accomplished to date?

Answer. The goal of this research is to develop a collection of Listeria monocytogenes isolated from various food processing plants and from various sites within processing plants for characterization by DNA fingerprinting to elucidate the specific DNA subtypes of this organism associated with contamination. DNA fingerprints for these Listeria monocytogenes, as well as fingerprints for Listeria monocytogenes from humans, will be assembled into an electronic fingerprint database accessible to other researchers, public health officials, and industry. This database will provide the food industry with access to modern DNA fingerprinting tools and will help them to better control Listeria monocytogenes contamination.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This is a new project for fiscal year 2001. For fiscal year 2001 $284,373 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. Funding in the amount of $122,245 has been provided to the International Life Sciences Institute, North America.

Question. Where is this work being carried out?

Answer. The work will be carried out at the Department of Food Sciences at Cornell University, Ithaca, New York. Collaborators include ABC Research, Gainesville, Florida.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The original objectives of this project should be completed by September 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project beginning in fiscal year 2001. No evaluation has been conducted by USDA.

FOOD SYSTEMS RESEARCH GROUP, WISCONSIN

Question. Please provide a description of the research that has been done under the Food Systems Research Group, Wisconsin program.

Answer. The Group conducts research on contemporary issues affecting the organization and competitiveness of the U.S. food system in domestic and international markets. The issues include new technologies, market structure, firm behavior, and government policies and programs. Studies have been completed on pricing of cheddar cheese, fed cattle, and hogs; changes in private label product markets; causes of structural change in the flour milling, soybean oil milling, wet corn milling, cottonseed milling, beef packing, and broiler processing industries; competition in U.S. food markets; and the relationship between U.S. food market structure and the industry's performance in global markets. The research proposal was subject to an administrative review and a peer review by the university prior to submission to CSREES.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that the U.S. food system is changing rapidly in response to a large number of global economic, social, and technological changes. Research is needed to determine the effects of these changes on the system's organization and performance, and to ascertain needed adjustments in public policies based upon sound research. There is a national need to assess and evaluate the organization and performance of the Nation's food industry to ensure that it continues to satisfy performance expectations of farmers and consumers and adheres to acceptable standards of conduct. In spite of the growing concentration in food production-processing and increasing public policy questions concerning the performance of this industry, few organizations like the Food Systems Research Group are providing research needed for public and private decision making.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The original goal was to assess and evaluate the organization and performance of the U.S. food industry and provide recommendations for improvements. Recent research results include the following: (1) firm concentration trends in a number of food industry subsectors, such as dairy, have been analyzed as preparation for determining the impact of increasing consolidation on producers, consumer, and others; (2) models of arbitrage pricing were developed and used to estimate allocative efficiency in broiler, beef, and pork subsectors; allocative inefficiency appears in all three because participants do not adequately anticipate dynamic market changes; vertical integration in broilers has greatly improved production efficiency but not allocative efficiency; (3) resource allocation to an "office of technology transfer" seems to be the most important factor affecting diversity biotechnology patent production, strategic behavior of Wisconsin agribusiness firms was documented in three case studies: one firm operates in the mature artificial breeding industry, and the other two are involved in cheese production.

The project has completed numerous studies on economic structure and performance issues of the U.S. food manufacturing and distribution system. Basic research is conducted on market theories; effects of mergers, new technologies, and firm conduct on industry structure and organization; factors affecting industry prices, profits, efficiency and progressiveness; and impact of public policies and regulations on food system organization and performance.

Question. How long has this work been underway, and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal years 1976–1981, $150,000 per year; fiscal years 1982–1985, $156,000 per year; fiscal years 1986–1989, $148,000 per year; fiscal year 1990, $219,000; fiscal years 1991–1993, $261,000 per year; fiscal year 1994, $245,000; fiscal years 1995–1998, $221,000 per year; fiscal year 1999, $225,000; fiscal year 2000, $425,000; and fiscal year 2001, $498,900. A total of $5,395,900 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: State appropriations of $120,304 in 1991; $119,448 in 1992; $85,188 in 1993; $96,838 in 1994; $59,435 in 1995; $50,636 in 1996; $56,421 in 1997; $64,004 in 1998; $75,115 in 1999; and $40,218 in 2000.

Question. Where is the work being carried out?

Answer. The grant supports research at the University of Wisconsin, Madison.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1976 was for a period of 36 months. The current phase of the program will be completed in 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in April 2000, as it evaluated the 2000 project proposal and concluded: The Food Systems Research Group at the University of Wisconsin is undergoing leadership changes. An Interim Director has been appointed while a new director is being sought. The Group continues to attract a number of respected researchers that do very good work.

FORAGES FOR ADVANCED LIVESTOCK PRODUCTION, KENTUCKY

Question. Please provide a description of the research that has been funded under the Forages for Advanced Livestock Production, Kentucky grant.

Answer. Forage-based livestock production in Kentucky and surrounding states depends primarily on tall fescue. There are more than 35 million acres of tall fescue in the region. The objective of this project is to use traditional plant breeding and molecular mapping of tall fescue and related species to develop cultivars with reduced endophyte toxicity and improve production and persistence.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The focus of this research will be in Kentucky; however the results will have extensive application in the surrounding states where tall fescue is the principle forage grass. Therefore this project is regional in nature.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop improved cool season forage cultivars form tall fescue and related species and improve the economics of forage-based livestock production in the region.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2000. The appropriation for fiscal year 2000 was $212,500, and fiscal year 2001 is $374,175 a total of $586,675 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The principle investigator estimated non-Federal funds provided by the state in support of this work was $130,000 in the year 2000.

Question. Where is this work being carried out?

Answer. Research will be conducted at the Kentucky Research Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is fiscal year 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The initial proposal was subjected to peer review and approval process at the initiating institution and received additional review by CSREES National Program Staff. Results from the first year will be used to refine objectives and approaches for year 2001 proposal.

FORESTRY RESEARCH, ARKANSAS

Question. Please provide a description of the research that has been done under the Forestry Research, Arkansas grant.

Answer. The Arkansas Forest Resources Center offers programs of research, education, and outreach to the landowners of Arkansas and the surrounding region. This has been accomplished through continuing education events for landowners, the development of a series of distance-learning tutorials, and the funding of 20 assistantships for the first two classes of graduate students in the new forest resources master's program. A partial list of workshops includes: Uneven-aged Silviculture of Loblolly and Shortleaf Pine Forest Types; Environmental Law & Policy; Timber Income Tax Update; Thinning Methods and Operations; Introduction to Arc View 3.0; Estate Planning; Forest Finance Applications: Basic Tools for Daily Practice; and Opportunities in Forest Regeneration. The educational thrust has combined Center and private dollars to establish one of only three of the country's Arc View Learning Centers for natural resources. To better provide the highly educated professionals needed in the natural resources professions, educational tutorials are being developed in dendrology—tree identification, plant morphology, silvics—that aid in the (1) transfer of students in community colleges to institutions with forest resources offerings, and (2) forest resources education of non-majors at institutions without forest resources faculty. Furthermore, the University of Arkansas activated a new Master of Science program in the Fall 1998.

Research projects address issues of species diversity, richness, redundance, and the resilience of disturbed and undisturbed hardwood stands of the Mississippi River floodplain. Furthermore, research has indicated that neotropical migratory birds are indicators of ecosystem health. Factors influencing their breeding range include habitat destruction/alteration and forest fragmentation. Thus, issues of reestablishment and structure of hardwood stands are important for timber, non-timber values, and the quality of life enjoyed regionally, nationally, and internationally. Also, other projects are contributing to the development of (1) a biological control agent for the southern pine beetle, (2) alternative forest crops for the economically-depressed Delta region, and (3) technologies for enhanced fiber and wood production from nonindustrial and industrial lands. Newer projects include an important regional social science study of the resource ethical values held by people of the southern U.S. and a comprehensive study for forest growth and yield.

Question. According to the research proposal, or the principal researchers, what is the national, regional, and local need for this research?

Answer. With the reduced levels of production of wood products from the Northwest, southern forests are increasingly having to produce a major portion of wood products for the U.S. This increased demand and production make it critical that the forestry community understand the possible environment effects of forestry practice. Social implications of the conflicts between forest production and environmental quality will become more and more important. Collectively, the projects address the sustainable management of southern forests.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to develop alternative forest management strategies for achieving multi-resource objectives; i.e., production of timber, wildlife, recreation, and other values of the forest on private industrial and non-industrial forest lands and pubic lands. Significant progress has been made in several areas. Some examples include: developing intensive fiber farming systems as alternatives to soybeans for Mississippi Delta farmers, taking the first step toward biological control of the southern pine beetle by discovering the nutrient needs of predators of the beetle so predators can be grown and studied in artificial cultures. The first survey of nonindustrial landowners in Arkansas for 15 years has been conducted. The survey shows that because of the average age of landowners—60+ years—there will be a massive change in ownership in the next 10–20 years. Landowners continue to not be aware of assistance programs. The survey also indicated a concern about government programs and possible intervention on private land. This information will be useful in understanding future timber supply trends from private holdings and in the design of assistance and educational programs.

Ongoing projects include a broad array of topics competitively awarded within the Center. These include best management practices, ecological characteristics, effects of different forest management regimes, stream-sided buffer zone effectiveness, effects of winter logging, and secondary processing efficiency.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows:

Grant Year	*Grant Received*
1994	$470,000
1995	523,000
1996	523,000
1997	523,000
1998	523,000
1999	523,000
2000	523,000
2001	521,849
Total	4,129,849

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funding and its source provided to this grant in 1994 was $411,726 State appropriations and $380,000 industry for a total of $791,726; $491,301 State appropriations and $785,262 industry for a total of $1,276,563 for 1995; a total of $695,204 from State and industry sources for 1996; a total of $1,115,341 from these sources in 1997; and an estimated total of $1,000,000 for 1998. For 1999, the State legislature appropriated approximately $850,000 above the 1998 level. For 2000, the state contributed $1,607,000 to the project.

Question. Where is this work being carried out?

Answer. The Arkansas Forest Resources Center is administered from the School of Forest Resources on the campus of the University of Arkansas at Monticello. Individual studies are being conducted at the University of Arkansas at Fayetteville and several locations across the State.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Grants were received in 1994–2000 with funds distributed for use over the 3 to 5 years following the activation year. Projects are on schedule; work from 1994 and 1995 funding is nearing completion. Forestry research is long term. Center objectives and selected projects will be continued beyond the life of individual grants using the infrastructure and capacity developed with these Special Research Grants.

Question. When was the last agency evaluation of the project? Provide a summary of the last evaluation conducted.

Answer. In 1991, an agency team visited the University and reviewed faculty qualifications, supporting sources, and the feasibility of the proposal. The team exit report indicated the faculty was highly capable, the infrastructure needed strengthening, and the proposal concepts were feasible. Since 1991, there has not been a formal program review. A review planned for the year 2000 has been rescheduled for 2001 because of a change in forest resources leadership at the University.

FRUIT AND VEGETABLE MARKET ANALYSIS, ARIZONA AND MISSOURI

Question. Please provide a description of the research that has been funded under the Fruit and Vegetable Market Analysis, Arizona and Missouri program.

Answer. The purpose of this research is to provide timely knowledge and analysis of the impacts of trade, environmental, monetary, and other public policies and programs upon the Nation's fruit and vegetable industry to farmers, agribusinesses, and policymakers through a program of empirical assessment and evaluation.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local need for this research?

Answer. The U.S. fruit and vegetable sector is experiencing increased growth from greater domestic and export demand. However, the growth of this sector depends upon its ability to compete domestically and internationally and to conform with the regulatory environment in which it operates. This program of research provides increasingly critical information to farmers and policymakers on the implications and impacts of various policies and programs such as environmental, trade, labor, and food safety. It is the only such program providing analysis of the total U.S. sector.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to develop the analytical capability to assess and evaluate public policies and programs impacting the U.S. fruit and vegetable industry and disseminate the results to policy makers, industry organizations, producers, and other users. Proposals have been submitted that outline long-range plans and specific projects for funding. Models have been developed for 18 major—as measured in production, consumption, and trade—United States fruits and vegetables representing 80 percent of the farm value of the U.S. fruit and vegetable industry.

Trade models for those commodities with a significant import and/or export sector will also be developed. These models feed in to a larger food and agricultural sector model to support analysis of cross commodity and policy effects.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This research program was initiated in fiscal year 1994. Grants have been awarded from funds appropriated as follows: fiscal year 1994, $329,000; fiscal years 1995 through 1998, $296,000 per year; fiscal years 1999 and 2000, $320,000 per year; and fiscal year 2001, $347,234. A total of $2,500,234 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funding and its source provided to this grant in 1994 was $50,073 State appropriations and $11,000 industry for a total of $61,073; $21,876 State appropriations and $36,624 industry for a total of $58,500 for 1995; a total of $62,400 from State and industry sources expected for 1996; and $50,000 each year from these sources in 1997 and 1998.

Question. Where is the work being carried out?

Answer. The work is being carried out at Arizona State University and the University of Missouri.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The university researchers anticipate that this is an ongoing project to look at the impact of various public policy proposals on the U.S. fruit and vegetable industry.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. We have conducted no formal evaluation. However annual proposals are peer reviewed for scientific merit and relevance; also each annual budget proposal is carefully reviewed and work progress is compared with prior year's objectives. Informal discussions with congressional staff indicate that the analyses are extremely useful.

GENERIC COMMODITY PROMOTION, NEW YORK

Question. Please provide a description of the research that has been done under the Generic Commodity Promotion, New York program.

Answer. The grant supports, in part, the National Institute on Commodity Promotion Research and Evaluation which provides objective analyses of national and state commodity checkoff programs designed to enhance domestic and export demand for U.S. agricultural products. "Checkoff" programs collect funds from producers to pay for advertising and promotional programs. The overall project proposal was peer reviewed at the university level; a competitive peer review process is used to select specific research projects.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher states that producers are contributing about $1 billion annually to commodity research and promotion funds designed to expand the domestic and export markets for their products. The number of commodity groups participating and the size of the funds available could continue to grow. The 1996 Federal Agriculture Improvement and Reform—FAIR—Act requires all Federally-constituted research and promotion boards to evaluate their programs at least every five years. Accurate evaluations require the development of sophisticated techniques that differentiate the impact of research and promotion expenditures from several other market influencing factors.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to determine the economic effectiveness of generic promotion programs designed to increase the sales of agricultural commodities in domestic and international markets. Accomplishments over the last five years include: (1) understanding key economic relationships in the advertising and promotion of milk and dairy products, beef, cotton, and eggs, and the exports of beef, pork, and wheat; (2) discovering that "pulsed" advertising is superior to uniform advertising; (3) understanding the factors affecting producer attitudes toward checkoff programs; (4) developing a comprehensive database of advertising expenditures for all food products; (5) developing new techniques using scanner data; (6) developing new methods of estimating the relationships among advertising, promotion, government support pro-

grams, and government policy; (7) developing new methods of measuring advertising "wearout;" (8) determining the sensitivity of results using various methods; (9) explaining the effect of socioeconomic and market factors on the impact of advertising; (10) estimating optimal allocation of advertising expenditures by type of media; and (11) comparing the relative returns from generic and brand advertising. The Institute has sponsored educational workshops and conferences for promotion board leaders and for elected and appointed public officials responsible for developing public policy and administering checkoff programs.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by the grant began in fiscal year 1994. The appropriation for fiscal year 1994 was $235,000; for fiscal years 1995–1999, $212,000 per year; for fiscal year 2000, $198,000 per year; and for fiscal year 2001, $197,564. A total of $1,690,564 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal matching funds and sources allocated to this grant by Cornell University are as follows: $97,333 a year in State appropriations for 1994–1996; $125,650 for 1997; $130,430 each for 1998 and 1999; and $130,000 for 2000. Collaborating institutions performing work under subcontracts also contribute non-Federal matching funds.

Question. Where is this work being carried out?

Answer. The work is being carried out at Cornell University in collaboration with eight other land-grant universities.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1994 was for a period of 21 months, however, the need to evaluate the benefits of commodity promotion and research programs is a growing regional and national concern as producers take on greater responsibility for marketing their products. An increasing number of promotion and research programs are being evaluated. The current phase of the program will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in March 2000, as it evaluated the 2000 project proposal, and determined that: "The project has sound objectives and procedures that are helping private and public decision makers effectively expand markets for U.S. agricultural products leading to a highly competitive agricultural production system and enhanced economic opportunity for Americans. The proposal carefully documents the progress and results of several ongoing projects supported by the grant at a number of universities. The principal investigator, as well as other faculty and staff at Cornell University, is well-recognized for research in the economics of commodity promotion."

GLOBAL CHANGE

Question. Please provide a description of the research that has been funded under the Global Change, Colorado grant.

Answer. Radiation from the sun occurs in a spectrum of wavelengths with the majority of wavelengths being beneficial to humans and other living organisms. A small portion of the short wavelength radiation, what is known as the Ultraviolet, or UV–B Region of the spectrum, is harmful to many biological organisms. Fortunately, most of the UV–B radiation from the sun is absorbed by ozone located primarily in the stratosphere and does not reach the surface of the earth. The discovery of destruction of the stratospheric ozone layer and development of the ozone hole over polar regions has raised concern about the real potential for increased UV–B irradiance reaching the surface of the earth and the significant negative impact this could have on all biological systems including man, animals, and plants of agricultural importance. There is an urgent need to determine the amount of UV–B radiation reaching the earth's surface and to learn more about the effect of this changing environmental force. CSREES is in the process of establishing a network for monitoring surface UV–B radiation which will meet the needs of the science community of the U.S., and which will be compatible with similar networks being developed throughout the world. The fiscal year 2000 grant supports work through September 2001.

This grant is part of a government-wide initiative. The research is closely coordinated with other Federal agencies involved in the U.S. Global Change Research Program Inter-agency UV-Monitoring Network Plan.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes destruction of the stratospheric ozone layer, our shield from the full intensity of solar radiation, continues to increase. This creates a high priority need for information to document not only the levels of UV–B radiation reaching the earth's surface, but the climatology of that radiation. The U.S., and the rest of the world, needs to know the strength of the UV–B radiation reaching the earth and the potential impact on all forms of life, especially animal and plant life of agriculturally-important species. The principal researcher believes this research to be of national as well as regional and local importance.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The USDA UV–B Network is to provide accurate, geographically-dispersed data on UV–B radiation reaching the surface of the earth and to detect trends over time in this type of radiation. A primary problem which had to be overcome in order to reach this goal was the development of instrumentation adequate to make the measurements required for the monitoring network. A major advance occurred during 1996 with the availability to the network of a new multi-band instrument which will provide the spectral information needed to support both biological and atmospheric science research and to serve as ground-truth for satellite measurements. These instruments have been deployed and are currently in operation at 29 monitoring sites across the U.S., including Hawaii and Alaska. The researchers plan to have additional sites in Puerto Rico, Oregon, North Carolina, and Oklahoma, but these plans are on hold due to lack of funding to support their installation and operation.

Two grants to design and build six advanced spectroradiometers have been awarded under the CSREES National Research Initiative Competitive Grants Program. These instruments are to be used in a research network to make precise measurements of the total UV–B spectra at selected research sites. The first of these instruments failed to meet spectral performance standards when tested and calibrated by the National Institute of Science and Technology. An alternative design, which resulted in a much larger and more difficult instrument to deploy, has been developed. The first of the advanced instruments was deployed at a U.S. Department of Commerce research site at Table Mountain near Boulder, Colorado, during the fall of 1998. The second and third were installed at a Department of Energy solar radiation research site in Oklahoma and at an Agricultural Research Service Plant Stress site in Beltsville, Maryland, during 1999. Additional funding will be required to support the deployment of additional research instruments.

To gain experience in network operation, broadband instruments along with ancillary instruments were installed at ten sites and have been in operation for the last 72–84 months. These sites are now equipped with a full compliment of instruments including the new multi-band instrument. Sixteen additional sites developed since 1997 are similarly equipped with broadband and the new multi-band UV instrument. Data from each site is transmitted daily to Colorado State University for preliminary analysis, distribution, and archiving. These data are available, within 24 hours of collection, on the Internet via a World Wide Web Site located in the Natural Resources Research Laboratory at Colorado State University. USDA is also a participant in the development of a central calibration facility at the U.S. Department of Commerce facilities in Boulder, Colorado. The purpose of the central calibration facility is to ensure uniform and acceptable calibration and characterization of all instruments used in interagency UV–B monitoring programs.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1992, and the appropriation for fiscal years 1992–1993 was $2,000,000 per year; fiscal year 1994 was $1,175,000; fiscal year 1995 was $1,625,000; fiscal year 1996 was $1,615,000; fiscal year 1997 was $1,657,000; fiscal years 1998 through 2000 were $1,000,000 per year; and in fiscal year 2001, $1,430,845. A total of $14,502,845 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $162,000 state appropriations in 1993; $183,106 state appropriations in 1994; and $285,430 provided by Colorado State University in 1995.

Question. Where is this work being carried out?

Answer. Colorado State University is managing the operating network, which when completed will include all regions of the country. At least 30 sites are planned for the climatological network including sites in Hawaii, Alaska, and Puerto Rico in order to provide broad geographic coverage. Ten sites have been operational with broad band instruments for up to seven years, and 29 sites are now operational with new generation instruments. The research level network began with the first instrument installed at the Table Mountain, Colorado instrument intercomparison site and the second and third have been installed at the USDA Plant Stress Laboratory at Beltsville, Maryland, and the U.S. Department of Energy Solar Radiation site near Ponca City, Oklahoma, as part of the Atmospheric Radiation Measurements field network in 1999.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. As with other weather and climate observations, this network will be an ongoing need for the predictable future. These measurements will provide information on the nature and seriousness of UV–B radiation in the U.S. and will provide ground truth validation to other predictions of UV–B irradiance. The project has nearly met its first objective of the establishment of a climatological network to monitor UV–B radiation at the surface of the earth. Years of operation will be required to measure trends in UV–B radiation and to develop models to predict the climatology of UV–B radiation.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency has assigned two technical staff to continuously monitor activities in the global change research program. A team of three experts in UV–B radiation measurement technology reviewed specifications for the development of the advanced spectroradiometers in July 1996 prior to the procurement of major components of the instrument. A panel of radiation spectra scientists were brought in to review data derived from the new multi-band instruments in December 1996 to advise on the interpretation and analysis of data derived from these instruments. Agency staff is in contact with program management on a weekly basis and has visited the program headquarters six times during the last year. The annual plan of work has been reviewed by three scientists prior to approval by the agency. A review of the UV–B Monitoring Program by a panel of technical experts from outside the Department is planned for April 2001.

GRAIN SORGHUM, KANSAS

Question. Please provide a description of the research that has been funded under the Grain Sorghum, Kansas grant.

Answer. This project was designed to improve the yield improvement of grain sorghum cultivars by developing early maturing hybrids with a longer grain filling period. The research focuses on identification of sorghum germplasm, which have a longer grain filling period or earlier maturation date. These traits may be used to shift more of the production to grain and less to vegetative growth, thus enabling more efficient use of the limited water supply. These funds are awarded to scientists working on sorghum at Kansas State University.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The focus of this research is toward the non-irrigated lands of Kansas where sorghum can produce a grain crop under conditions that would not be possible with corn and is, therefore, very important in the rotation with wheat. While the research is directed toward Kansas conditions, it would also apply to adjoining states.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to identify germplasm and use it to develop grain sorghum cultivars that mature earlier and produce more grain. Initial studies have identified genetic characteristics controlling grain yield under a range of climatic conditions. Researchers have identified several sorghum lines, which have a grain-filling period as much as one-third longer than U.S. adapted parent lines. Analyses show that variability exists, the trait is genetically controlled, and incorporation into adapted germplasm can be accomplished. Simulation of expected production gains has been initiated.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997 and the appropriation for fiscal years 1997 through 2000 was $106,000, and for fiscal year 2001 is $105,767 for a total of $529,767.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In 1998, Kansas State provided support via salaries and associated fringe benefits of $31,852, associated indirect costs of $14,652, and in-kind costs of $45,580, for a total of $92,084. In 1999, a total of $95,700 was provided and for 2000, $97,200 was provided.

Question. Where is this work being carried out?

Answer. The research will be conducted on Kansas State University research facilities.

Question. When was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The objectives of this project, which began in 1997, are to develop sorghum parental lines with genetically-longer grain fill duration and identify changes in management necessary to optimize grain production in these lines. Five years or more are required to accomplish the objectives. The first objective has been completed. The researchers expect to complete the next three original objectives by 2004 and subsequent objectives by 2006. Preliminary results have contributed toward the understanding of factors controlling grain yield and the development of higher yielding sorghum cultivars for Kansas.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project is subjected to the institutional review and approval process, as well as review by CSREES National Program Staff. In addition, stakeholder input was obtained through formal and informal methods. The institutional review of the project confirmed that high priority issues of the sorghum industry in Kansas and other sorghum-producing states were being addressed.

GRASS SEED CROPPING SYSTEMS FOR SUSTAINABLE AGRICULTURE, ID, OR, & WA

Question. Please provide a description of the research that has been funded under the Grass Seed Cropping Systems for Sustainable Agriculture, Idaho, Oregon, and Washington grant.

Answer. This program was developed to provide management systems for sustainable grass seed production without field burning of the straw residue following harvest which results in adverse air quality problems. Grass seed yields are often significantly reduced the following season if the residue is not burned.

Funds from this grant are awarded competitively to scientists at Oregon State University, the University of Idaho, and Washington State University engaged in research on grass seed production. Each award has passed a merit review by peer scientist.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that according to information provided by technical committees representing researchers and the grass seed industry, the need for this research is to develop sustainable systems of seed production that do not depend on field burning of straw residue. Much of the grass seed for the U.S., including lawn grasses, is produced in the area. Field burning of straw residue creates unacceptable levels of air pollution, and yields of some cultivar decline without burning. This is a regional issue that impacts the national supply of grass seed.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal for this project is to develop grass seed production systems that do not depend on field burning of straw residue. To date joint planning by state experiment station administrators and researchers from the three states with industry input has developed an integrated regional research effort to solve the problem.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994. The appropriation for fiscal year 1994 was $470,000; for fiscal years 1995–2000, $423,000 each year; and for fiscal year 2001, $422,069. A total of $3,430,069 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal support for this project in fiscal year 1994 was $266,055; $298,052 for fiscal year 1995; $282,053 in fiscal year 1996; $301,650 in fiscal year 1997; $310,700 in fiscal year 1998; $346,500 in fiscal year 1999; and $334,800 in fiscal year 2000.

Question. Where is this work being carried out?

Answer. The research will be conducted by the three state agricultural experiment stations in Idaho, Oregon, and Washington.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Completion of the initial objectives was anticipated to take five years and, therefore, should be completed in 1999. Revised goals leading to application of new management systems have been developed and should be completed in 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The entire project is reviewed annually by a steering committee for focus and relevance. The combined proposal is reviewed by CSREES before funds are awarded.

Considerable progress has been made toward identifying the consequences of phased out field burning of straw residue on grass seed production. Current and future efforts are directed toward development of sustainable systems without field burning. This program is subject to annual comprehensive evaluation by a team of peer scientists, industry representatives, and farmers. The results are used to guide research for the next year. Each proposal is subjected to the institution project approval process and reviewed by the CSREES National Program Leader.

HUMAN NUTRITION, IOWA

Question. Please provide a description of the work that has been funded under the Human Nutrition, Iowa grant.

Answer. This research aims to develop animal and plant foods with nutritionally-optimal fat content and to improve utilization of foods containing non-nutrient health protectants, components that may reduce health risks. The research includes food production and processing, human and animal nutrient utilization, consumer food choices, and economic impacts of designed food to support optimal nutrition. The fiscal year 2000 grant supports research efforts of 30 investigators from seven disciplines through June 2001.

CSREES requested that the university submit a grant proposal for fiscal year 2001, which is now under CSREES merit review.

Question. According to the principal researcher, what is the national, regional or local need for this research?

Answer. The research addresses food quality, nutrition, and optimal health. Much of the research focuses on improving the nutritional quality of foods important to the economy of the Midwest, while making those improvements economically feasible. Ongoing research focuses on increasing health protective lipids and plant chemicals in human foods. Such foods have recently been called functional foods, and the development of functional foods is of high priority to the food industry. In ongoing projects, novel strategies are being developed for the dietary reduction of heart disease risk. Recent studies have included genetic modification of plant foods for animal and human diets.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the Center for Designing Foods to Improve Nutrition, the administrative unit for this grant, is to improve human nutrition and health maintenance by determining how to improve animal and plant food fat content and how to increase availability of health-protectant factors in the human food supply.

The Center's research group on soybean health effects has built upon its international reputation for the soybean isoflavone database, by demonstrating the importance of isoflavones with soy proteins in lowering circulating cholesterol and in maintaining bone density. Scientists in the Center have also contributed to the development of strategies for dietary control of high cholesterol and heart disease risk. Pork was modified to contain high polyunsaturated fatty acids that were found to lower circulating cholesterol in human subjects.

Additional projects are aimed at genetically-modifying plants to enhance their human health benefit. One project is assessing the plant genes that control vitamin content with the aim of modifying vitamin content in the future. Another project focuses on controlling the genes that regulate carotenoid synthesis to provide a better utilized pro-vitamin A source for the developing world. A third project developed

strategies to improve the bioavailability of resveratrol, a cancer preventative agent, from genetically-modified alfalfa that accumulates this compound. Ongoing research is based on earlier studies that demonstrated improved carotenoid bioavailability in fats with high saturated fatty acid content. Shea butter is used for cooking in sub-Saharan Africa and has a high saturated fatty acid profile. This project will determine if using shea butter as a vehicle for vitamin A fortification will improve vitamin A status in compromised populations.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 with an appropriation of $300,000. The fiscal years 1992–1993 appropriation was $500,000 per year; $470,000 in fiscal year 1994; $473,000 per year in fiscal years 1995 through 2000, and $471,959 in fiscal year 2001. A total of $5,079,959 has been appropriated.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $293,000 university, $312,869 industry, and $14,000 miscellaneous in 1991; $90,000 state appropriations, $473,608 university, $131,160 industry, and $116,560 miscellaneous in 1992; $307,500 state appropriations, $472,081 university, and $222,267 industry in 1993; $486,000 university and $254,000 private in 1994; $210,000 university and $200,000 private in 1995; $613,770 university and $207,811 private in 1996; $690,736 university and $458,000 private in 1997; $502,124 university and $700,000 private in 1998; $363,000 university, $3,109,000 private, and $2,617,000 other Federal in 1999; and $804,639 private and $2,957,877 other Federal in 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at the Center for Designing Foods to Improve Nutrition, Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original overall objective to design foods to improve nutrition is continuing to be addressed. A new set of related objectives will be initiated in 2001.

Bonilla. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The grant proposals for fiscal years 1998 through 2000 have undergone extensive scientific peer review by the grantee. Progress and objectives were further reviewed in May 1999 by the Center's newly formed External Advisory Council and in May 2000 by the Departmental and Center Review Committee, and their recommendations are being implemented. Space allocations for Center research activities have been clarified and a full time Director is being recruited.

HUMAN NUTRITION, LOUISIANA

Question. Please provide a description of the work that has been funded under the Human Nutrition, Louisiana grant.

Answer. Obesity remains a worldwide epidemic. The grant entitled "Dietary Fat and Obesity" examines three aspects of this problem. Will the surreptitious replacement of dietary fat reduce body weight? Will fluctuations in daily fat intake influence the ability to use fat? How do good and bad fatty acids produce their different health effects? The fiscal year 2000 grant supports research through September 2001. CSREES has requested that the university submit a grant proposal for fiscal year 2001.

Question. According to the principal researcher, what is the national, regional or local need for this research?

Answer. Obesity is the second leading cause of preventable death. If dietary fat plays a role in the epidemic of obesity, reducing fat intake might help alleviate its consequences. Identifying individual risk factors for susceptibility to obesity and its health consequences in the environment of a high fat diet will enable the targeting of these special populations for intervention.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The overall goal of this grant is to identify the basis for the susceptibility to obesity of people who eat high-fat diets and to understand how they differ from those people who are resistant to becoming obese when eating a high-fat diet. The principal finding of the past year has been the strong relationship of insulin and fitness to the ease with which people become obese. The best indicator of the risk

of storing fat is the level of insulin. The identification of these relationships opens up a new group of possible strategies for prevention of obesity.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991, and the appropriation for fiscal years 1991–1993 was $800,000 per year; for fiscal years 1994–2000 was $752,000 per year; and for fiscal year 2001, $750,346. A total of $8,414,346 has been appropriated.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $523,100 state appropriations in 1991; $515,100 state appropriations and $2,216,606 private in 1992; $536,100 state appropriations and $940,000 private in 1993; $627,000 state appropriations and $3,775,000 private in 1994; $546,100 state appropriations and $3,100,000 private in 1995; $1,471,000 state appropriations and $2,488,000 private in 1996; $1,998,000 state appropriations and $2,104,000 private in 1997; $987,000 state appropriations and $1,892,000 private in 1998; $1,004,000 state appropriations and $3,136,000 private in 1999; and $1,085,000 state appropriations and $1,685,000 private in 2000

Question. Where is this work being carried out?

Answer. Research will be conducted at the Pennington Biomedical Research Center, Louisiana State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original overall objective was to identify the basis for the susceptibility to obesity of people who eat high fat diets and to understand how they differ from those people who are resistant to becoming obese when eating a high fat diet. It is anticipated that several specific objectives will be completed in 2001. On March 13, 2001, a site visit team will provide external peer review of the projects proposed for completion in 2001 and will also review research projects proposed for 2001 and 2002, which address the related objective of further characterization of the susceptibility to positive energy balance when exposed to a high dietary fat environment by evaluating a broader population, including men and women, African Americans, and Caucasians with varying fitness conditions.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. In March 1999 an on-site panel of researchers evaluated the proposed objectives and experimental protocols. The critiques from this site visit were used to revise the final proposal. Another site visit is planned on March 13, 2001, to assess the progress and evaluate a new set of related objectives, as well as future research protocols. The site visit panel will include four imminent peer scientists, and the evaluation will be on the basis of originality and feasibility of the research plan, potential impact of the research results, and appropriateness of the research to the mission of USDA. The site visit team will produce a report of the review to be submitted to the Principal Investigator and to the responsible National Program Leader in CSREES. The research protocols will not be implemented until they have met acceptable standards by all review criteria.

HUMAN NUTRITION, NEW YORK

Question. Please provide a description of the work that has been funded under the Human Nutrition, New York grant.

Answer. This grant continues to bring together investigators who focus on issues that range from improving our understanding of key roles of nutrients at the molecular level to the development of improved strategies to enable consumers to adopt newly created knowledge easily and effectively. At the molecular end of the spectrum, emphasis is given to nutrient-gene interactions, and at the consumer end, emphasis is given to the role that a supportive environment plays in enabling consumers to make desired changes in their eating patterns. The fiscal year 2000 grant supports research through September 2001. This grant supports the second year activities for 14 research projects begun during the 1999 fiscal year. The focus of this program is to address the individualization of nutrient requirements from a broad multidisciplinary perspective. CSREES requested the university submit a grant proposal for fiscal year 2001 that has not yet been received.

Question. According to the principal researcher, what is the national, regional, or local need for this research?

Answer. In the past decade, and in particular the past five years, there has been an explosion of knowledge concerning individual differences in the genetic control of the metabolism which underlay disease processes and health maintenance. Because metabolism cannot exist without the provision of nutrients and because nutrients influence genetic control, an understanding of genomics is fundamental to the development of nutritional sciences, from the biological to the social. Further, knowledge of the individuality will become critical for the development of appropriate nutrition programs and policies, ranging from food system concerns, to the philosophy and design of dietary guidelines and guidance, to the implementation and evaluation of food assistance programs. For all of these applications there is a need for an integrated consideration of individual differences, not just in biology, but also in personal and cultural experience with food and other lifestyle and environmental exposures.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The 1990 Dietary Guidelines emphasize a reliance on plant-based foods. This emphasis was designed to control caloric consumption, reduce fat intake, modify the composition of ingested fats, enhance the consumption of foods associated with reduced cancer risk, and simultaneously insure that nutrient needs are met in the proportion that is recommended. The researchers continue to address information gaps that relate to these health goals and to the policy aims for their implementation and that limit the more effective enhancement of consumer practices. The recently released Dietary Guidelines continue this emphasis and are consistent with the programmatic direction that has become the hallmark of this project since its inception.

Selected highlights of research accomplishments include significant findings on the role of antioxidants found in foods that may protect from some cancers. One study has identified a biomarker for selenium in the blood that is suspected to play an important role in cancer-protective metabolites and serve as an end point measure of selenium status in cancer prevention trials. Other anti-cancer research involves retinoic acid, a metabolite of vitamin A. Research supported by this grant has helped understand the role of retinoic acid binding proteins in regulating the multiple functions of retinoic acid, especially in its role as an anticarcinogenic agent. We are exploring new avenues of nutrition research related to the interaction of genes and the nutritional environment. One study has successfully adapted methodologies used in the study of behavioral response of rats to iron and folate deficiencies to an experimental mouse model. Mice are the animal of choice in genetic studies, and this advance provides new opportunities for future research in functional genomics.

Epidemiologic research on the biological effect of folic acid deficiency on cardiovascular disease and certain cancers has shown that both dietary levels of this vitamin and a biomarker of folate acid status, homocysteine in the blood, are related to increased blood pressure in the third National Health and Nutrition Examination Survey. Other research has been examining food insecurity in Hispanic, black, and white elderly persons who live at home. This research has shown that neither the most commonly used definition of food insecurity nor the Federal measure used in the U.S. Census are sufficient in describing the problems among the elderly. As a result, food insecurity status of the elderly is misunderstood and underestimated in the U.S. We expect to propose new ways of measuring this problem to the USDA in Spring 2001.

Question. How long has this work been underway, and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $450,000; fiscal years 1990–1991, $556,000 per year; fiscal years 1992–1993, $735,000 per year; fiscal year 1994, $691,000; fiscal years 1995 through 2000, $622,000 each year; and fiscal year 2001, $620,632. A total of $8,075,632 has been appropriated.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $154,056 state appropriations and $2,456 private in 1991; $238,430 state appropriations and $60,746 private in 1992; $19,401 state appropriations and $22,083 private in 1993; $202,441 state appropriations and $1,175 private in 1994; $296,794 state appropriations in 1995; $348,127 in state appropriations and $39,593 private in 1996; $133,162 state appropriations in 1997; $8,185 university appropriations, $166,752 state appropriations, and $7,905 private in 1998; $6,395 university appropriations, $164,244 state appropriations, and $7,414 private in 1999; and $17,598

university appropriations, $205,917 state appropriations, and $16,717 private in 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at Cornell University, New York.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The university changed the focus of research funded by this grant complement, the university's initiative in mammalian genomics as well as the human and social science issues that relate to food and nutrition. Progress has been consistent with the proposed time lines. They anticipate completing the specific objectives in 2001 and plan to concentrate on an expanded nutritional genomics theme for the fiscal year 2001 proposal.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES made a site visit on May 27, 1999, to evaluate the change in focus. The grant proposal for fiscal years 1999 and 2000 was also subjected to independent peer review coordinated through the Cornell Agricultural Experiment Station. Two peer reviewers from a list of four submitted by the Project Director were selected by the Station Director. The reviewers were given the following eight criteria: scientific merit, clarity of objectives, appropriate methodology, feasibility of attaining objectives, accomplishment during preceding project period, research performance and competence of investigators, significance of anticipated results for agriculture, forestry or rural life, and relevance of the proposed work to regional and national goals. They gave the proposal an overall score of slightly below outstanding. The reviewers did report serious concerns with the objectives of two proposals that were subsequently not funded. Modifications were also made to experimental designs of other projects based on recommendations from the reviewers. The next peer review is scheduled to occur in Spring 2001 in conjunction with developing the next proposal.

HYDROPONIC TOMATO PRODUCTION, OHIO

Question. Please provide a description of the research that has been funded under the Hydroponic Tomato Production, Ohio grant.

Answer. This research is designed to develop and demonstrate state-of-the-art hydroponic vegetable production technology to achieve year-round high quality-tomato production. The project will develop and test decision support functions and distribute them through the Internet, and to develop and test automated control system. Results will be extended to other vegetable crops.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The research is needed to develop and evaluate management protocols for economical production of green house tomatoes as an alternative crop.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of the research are to develop and test protocols for management systems for operation of year round green house tomato production as an alterative crop.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 1998 and the appropriation for fiscal year 1998 was $140,000; for fiscal years 1999 and 2000 was $200,000 each year; and for fiscal year 2001, $99,780. A total of $639,780 has been appropriated.

Question. What is the source and amount of non-Federal provided by fiscal year?

Answer. The non-Federal funds provided for support of the project are $19,400 for fiscal year 1998; $24,500 for fiscal year 1999; and $30,000 for fiscal year 2000.

Question. Where is this work being carried out?

Answer. The research will be conducted by the Ohio State Agricultural Experiment Station at selected locations in Ohio.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal investigator for this project anticipates completion of the original objectives in fiscal year 2002. Revised objectives are projected for completion in 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was subjected to a peer review in the institution and again reviewed by CSREES National Program Staff.

ILLINOIS-MISSOURI ALLIANCE FOR BIOTECHNOLOGY

Question. Please provide a description of the research that has been funded under the Illinois-Missouri Alliance for Biotechnology grant.

Answer. The Illinois-Missouri Alliance has initiated a competitive grants program in agricultural biotechnology for research in targeted priority areas of need related to corn and soybeans. The scope of interest includes production, processing, marketing, utilization, inputs, and support services, along with economic, social, environmental, and natural resource concerns. The Alliance has solicited research project proposals from scientists at Illinois and Missouri and other midwestern institutions and has conducted peer reviews for science quality, commercial feasibility and potential economic impact to select the proposals that will be funded. In 2000 the Alliance awarded three new research grants at three institutions totaling $900,703. In 1998 the Alliance started an on-line magazine called AgBioForum devoted to the economics and management of agricultural biotechnology. The purpose of AgBioForum is to provide unbiased, timely information and new ideas leading to socially-responsible and economically-efficient decisions in science, public policy, and private strategies pertaining to agricultural biotechnology. In its second year of operation, AgBioForum experienced over 135,000 hits from individuals in universities, industry, government, and international organizations.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The principal investigator has indicated that the goal of the Alliance is the pre-commercial development of emerging biotechnology discoveries for agriculture. The midwestern region produces more than half of the nation's output of corn and soybean crops and is critical to domestic food security and U.S. competitiveness in global agricultural markets. Alliance grants are awarded on a regional basis to advance corn and soybean production in the Midwest. The Alliance is implementing a research strategy that it hopes will generate important biotechnological developments that are rapidly adaptable to unique local soil, climatic, and socioeconomic conditions of the region. Alliance grants are awarded to projects with a clearly defined marketable product or service derived from biotechnology research.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. Fiscal year 2000 was the sixth year of funding for the Alliance. The research program focuses on the two major commodity crops, corn and soybeans, as produced, processed, and marketed in the midwest. The goal of this biotechnology program is to fund integrated research and development projects that will lead to specifically-defined practical technologies for commercialization. The projects funded in fiscal year 2000 include efforts to: (a) better understand consumer attitudes toward products that have been improved through biotechnology and the basis for those attitudes; (b) evaluate options and strategies for more effectively communicating the benefits and risks of biotechnology; and (c) develop new soybean varieties with added healthful constituents, with special emphasis on antioxidants.

Question. How long has this work been underway and how much has been appropriated by fiscal year through 2001?

Answer. The work supported by this grant began in fiscal year 1995. The appropriations for fiscal years 1995 and 1996 were $1,357,000 each year; for fiscal year 1997, $1,316,000; for fiscal years 1998 through 2000, $1,184,000 per year; and for fiscal year 2001, $1,239,268 bringing the total appropriations to date to $8,821,268.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Alliance has not specified a required amount of matching funds, but it is expected that most projects will have commitments for significant direct and in-kind non-Federal support such as faculty salaries, graduate student stipends, and funding from industry and commodity groups. Since Alliance projects are still underway, the exact amount of the non-Federal contribution is still unknown. The non-Federal contribution is expected to be substantial, and a system for accounting for future non-Federal contributions is in place.

Question. Where is this work being carried out?

Answer. The research projects identified are being conducted at the University of Illinois, the University of Missouri, Iowa State University, Northwestern University, Southern Illinois University, and the USDA Agricultural Research Service.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Each project proposal for Alliance funding has a target date for completion. The four initial projects were three-year studies with anticipated completions at the end of fiscal year 1998. Most of the second and third rounds of projects are also three-year studies that were to be completed at the end of fiscal years 1999 and 2000, respectively.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Illinois-Missouri Biotechnology Alliance was evaluated for scientific merit by a review panel convened by the agency on April 17, 2000. The panel recommended approval of the project pending receipt of supplemental information on administrative aspects of the project. The supplemental information was received, and we are satisfied that the program is being administered in compliance with the purpose of the grant. A merit review panel will be convened to re-evaluate the project upon receipt of a proposal for fiscal year 2001.

IMPROVED DAIRY MANAGEMENT PRACTICES, PENNSYLVANIA

Question. Please provide a description of the research that has been funded under the Improved Dairy Management Practices, Pennsylvania grant.

Answer. The research focuses on developing methods to help dairy farmers in the adoption of new technology and management practices which lead to improved dairy farm profitability. Individual research projects funded by the grant are determined by a competitive peer review process administered by the Institution using peers from Institutions located primarily in other states.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the local need is for the identification and implementation of profit-enhancing management strategies for Pennsylvania dairy farms in response to changing market conditions and emerging technologies. The current focus is to reduce cow losses due to salmonella infections, to evaluate an effective fiber index system for the formulation of rations fed to dairy cattle, and to evaluate induced lactation in dairy heifers as a method to increase profitability of Pennsylvania dairy farms.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of this research remains the same, which is the development of methods to help dairy farmers in the adoption of new technology and management practices which lead to improved dairy farm profitability. A farm management survey is complete, and analysis of results is in progress. Farm financial models have been developed and are undergoing a field test on selected farms. Workshops to teach elements of business management to dairy farmers have been conducted, and survey instruments are in place to monitor effectiveness of workshops. Research is currently underway to develop improved models for nutrient management on northeastern dairy farms, to evaluate the potential role of intensive grazing systems to replace harvested forage, and to better understand how decisions are made by dairy farm families. Refinement of an expert computer-based system to assist dairy farmers in controlling the udder disease, mastitis, is underway. A study to evaluate the induction of lactation on dairy profitability is underway. An additional study to evaluate the impact of improved protein nutrition during late gestation on dairy cow performance has been initiated.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1992 and the appropriation for fiscal years 1992 and 1993 was $335,000 per year. The fiscal year 1994 appropriation was $329,000; $296,000 each year in fiscal years 1995–2000; and $397,124 in fiscal year 2001. A total of $3,172,124 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. During fiscal year 1992, $354,917 were from State funds, and $16,000 from Industry, for a total of $370,917. During fiscal year 1993, $360,374 were from State funds and $16,000 from Industry for a total of $376,374. Information is not available for fiscal years 1994–2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at the Pennsylvania State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal researcher anticipated completion of the original objectives by March 1994. The original objectives were met. Availability of continued funding has permitted the institution to develop a competitively-awarded grant program within the institution to address priority issues related to management of dairy farms. Proposals are reviewed and ranked by peers in other institutions prior to award. It is anticipated that awards from the fiscal year 2001 appropriation will be complete in September 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency accepts technical review of specific proposals funded by this grant on an annual basis. The overall proposal is reviewed by the agency on an annual basis. In addition, technical staff has conducted an onsite review of the program in 1993 and in 1995. The overall objective of the work funded by this grant has direct relationship to the development of Integrated Management Systems as well as to aspects of animal production systems for animal well-being and impact on the environment.

IMPROVED EARLY DETECTION OF CROP DISEASE, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Improved Early Detection of Crop Disease, North Carolina grant.

Answer. This project involves detecting pathogens on crops before symptoms appear. The project will examine several remote sensing systems to combine photonic instruments.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigator indicates that the project has potential of creating a universal remote sensing biosensor platform for early warning crop disease detection.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The goal of the research is to produce a crop-based biosensor with which to monitor the onset and spread of crop diseases for the purpose of early crop disease detection. They have made strides in the measurement of a green fluorescent protein in transgenic plants by using fluorescence spectrophotometer and laser-induced fluorescence imaging. These techniques are pivotal in gathering the induced plant photonic signal which will serve as an early indicator of plant diseases.

Question. How long has this work been underway and how much has been appropriated by fiscal year 2001.

Answer. The work supported by this grant began in fiscal year 2000. The appropriation for fiscal year 2000 was $170,000 and for fiscal year 2001 is $197,564. The total appropriation is $367,564.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds are not provided for this grant.

Question. Where is the work being carried out?

Answer. Research will be conducted at the University of North Carolina-Greensboro.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This grant was issued in 2000. It is anticipated that significant progress can be made in the next four years.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The overall grant is reviewed annually by CSREES' scientific staff.

IMPROVED FRUIT PRACTICES, MICHIGAN

Question. Please provide a description of the work that has been done under the Improved Fruit Practices, Michigan grant.

Answer. Funds from this grant will be awarded competitively to scientists at Michigan State University working with these crops. This research will involve a multidisciplinary approach to reduce chemical use on apple, blueberry, and sour cherry, three important Michigan fruit crops, and improve the management of dry

edible beans and sugar beets. Research will be conducted on crop management techniques and reduced chemical use.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes Michigan's need for this research is to develop and maintain/expand their tree fruit and small fruits industry. There is a need to improve the culture and management of dry edible beans and sugar beets in order for Michigan farmers to sustain production of these crops.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The planned objectives of the research are to reduce the chemical contamination of the environment from fruit production and improve production practices for beans and beets through multi-disciplinary research, including pesticides, and the development of new nonchemical production methods.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994. The appropriation for fiscal year 1994 was $494,000, for fiscal years 1995–2000, $445,000 each year; and for fiscal year 2001, $444,021. A total of $3,608,021 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant in fiscal year 1994 were $437,338 from state appropriations and $135,000 from industry; for fiscal year 1995, $574,494 were from state appropriations and $127,000 from industry; and a total of $908,969 for fiscal year 1996. The non-Federal funds for fiscal year 1997 totaled $752,500, for fiscal year 1998, total $729,145; for fiscal year 1999, total $1,332,300; and for fiscal year 2000, total $986,000.

Question. Where is this work being carried out?

Answer. Research will be conducted at Michigan State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Principal Investigators have reported significant progress toward improved cultural practices for these speciality crops which is expected to reduce the need for chemical pesticides. Some of the original objectives were completed by the end of fiscal year 1999. Long-term goals are expected to take an additional five years with a projected completion date of 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project has been subjected to a comprehensive review with each funding cycle. The annual proposals, including all of its sub-projects, are subjected to peer review before submission to CSREES to be reviewed by National Program Staff. The project has progressed toward the objective of developing management practices and strategies for economical production of speciality crops in Michigan with reduced chemical pesticide use. At the end of each research cycle, priorities are adjusted for the next year's funding. The evaluation is performed by scientists at Michigan State University.

INFECTIOUS DISEASE RESEARCH, COLORADO

Question. Please provide a description of the research that has been conducted under the Infectious Disease Research, Colorado grant.

Answer. The purpose of this project is to establish a multidisciplinary research center to study infectious animal diseases which have a critical economic impact. The "Center for Economically Important Infectious Animal Diseases" will work collaboratively with universities and state and Federal agencies. The focus will be on the impact of diseases such as vesicular stomatitis, various Mycobacterium species—M. bovis, M. tuberculosis, M. avium subsp.paratuberculosis— and brucellosis, methods for risk analysis, antimicrobial resistance issues, and development of vaccines for some of these diseases.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. The need for this research is to provide valid risk assessment models for diseases which affect both animal and public health and which can have a serious impact on international trade. Livestock producers and the industry need this type of information to enable them to make correct disease management decisions. The Center utilizes commodity advisory groups to prioritize specific disease problems

and will focus on those diseases with the greatest potential for economic impact. The Center currently has an Advisory Committee which comprises the private sector—commodity groups—academia, and Federal and state health officials. This group meets once or twice annually to review direction of the Center's programs and decide on critical priorities for the next year.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal was to establish a regional center that would foster interactive work on risk assessment, disease control, and minimize the economic impact of disease outbreaks in livestock. The Center has been successful in obtaining additional funding from a variety of sources to initiate studies on diseases such as vesicular stomatitis and tuberculosis. The coordinating structures have been established, and the Center has now reported several successes from their research program. They have been conducting long term surveillance for vesicular stomatitis on sentinel herds in the U.S. as well as in three other countries—Costa Rica, El Salvador, Mexico—south of the U.S. where this virus can be endemic in nature. Progress is also being made on newer, molecular technique-based diagnostic tests for Mycobacteria which are involved in tuberculosis or Johne's disease outbreaks.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999 with appropriations in fiscal year 1999 of $250,000; in fiscal year 2000, $255,000; and in fiscal year 2001, $299,340, for a total of $804,340.

Question. What is the source and amount of non-Federal funds by fiscal year?

Answer. In fiscal year 1999, the project also received the following funds: other Federal agency grants, $85,750; private foundation grants, $39,488; and state funds, $33,120 for a total of $158,358. For fiscal year 2000, the Center received $195,000 in other grants in support from private companies and foundations, $7,000 from the UN-International Agency for Atomic Energy, and the university contributed $119,276 in related indirect costs for a total non-Federal contribution of $321,276.

Question. Where is this work being performed?

Answer. The research is being conducted at the College of Veterinary Medicine, Colorado State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date is 2003. The work is proceeding on the designated schedule, and it is expected that the objectives will be met in a timely manner.

Question. When was the last agency evaluation of this project? Provide a summary of it.

Answer. The project was initiated in fiscal year 1999, and no formal on-site evaluation has been done at this time. The CSREES representative has kept in close contact with the Center Director and will attend the meeting of the Center's Advisory Committee on March 2, 2001, at which time a detailed review of the programs and functions of the Center for Economically Important Infectious Animal Diseases will be done.

INSTITUTE FOR FOOD SCIENCE AND ENGINEERING, ARKANSAS

Question. Please provide a description of the research that has been funded under the Institute for Food Science and Engineering, Arkansas grant.

Answer. As the flagship center for the Institute of Food Science and Engineering, the Center for Food Processing and Engineering has as its objectives to facilitate and encourage value-added research and improve the processing of agricultural products. The Center for Food Safety and Quality, with a mission to conduct research on the safety and quality of foods relative to microbiological and chemical hazards, was activated on January 1, 1997. Researchers within the Center for Human Nutrition are focusing on identification and evaluation of important dietary phytochemicals present in fruits, vegetables, grains, and legumes grown in Arkansas and the Southern region, enhancement of phytochemical content through advanced breeding techniques, and the development of new value-added products with elevated levels of these health promoting compounds. A proposal in support of the fiscal year 2001 appropriation has been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Institute will provide technical support and expertise to small and mid-sized food processors that usually do not possess adequate expertise in-house.

The economy of the southern region will be improved through the creation of new jobs and a high multiplier effect from the research.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to establish an Institute of Food Science and Engineering at the University of Arkansas-Fayetteville. The full implementation of research findings is estimated to have a potential economic impact for the food industry of over $25 million annually.

The Institute staff has assisted national food processing companies in development and quality improvement of thermally-processed products as well as serving small commercial kitchens and start-up. The Institute's Food and Agricultural Organization—FAO—Center of Excellence has been involved with a number of training-related activities in Latin America and the Caribbean to promote good agricultural practices related in the production and handling of fresh produce for export to the U.S. This activity is vitally important to the U.S. consumer because approximately 40 percent of fresh fruits and vegetables are imported.

To date, 108 publications, two IMPACT reports and a newsletter have served to keep the industry and fellow scientists informed of research activities. The publication of two comprehensive manuals and six Extension fact sheets has supplemented several Hazard Analysis Critical Control Point—HACCP—and Better Process Control Schools as important technology transfer activities.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1996. The appropriation for fiscal years 1996 and 1997 was $750,000 each year; $950,000 for fiscal year 1998; $,1,250,000 each year for fiscal years 1999 through 2000; and $1,247,250 in fiscal year 2001. A total of $6,197,250 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. The non-Federal funds and sources provided for this grant include $184,700 in state funds and $85,500 from industry in fiscal year 1996; $146,023 in state funds and $279,728 from industry in fiscal year 1997; $57,584 in state funds and $243,225 from industry in fiscal year 1998; $62,479 in state funds and $394,589 from industry in fiscal year 1999; $63,564 in state funds and $409,470 from industry in fiscal year fiscal year 2000; and $65,344 in state funds and $211,342 from industry. Including equipment donations of $738,369 and training of the Descriptive Sensory Panel valued at $200,000, industry has made a total contribution of $3,141,917. Adding Food and Agricultural Organization contributions of $88,000 and direct state contributions of $663,094, non-Federal support totals $3,893,011.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Arkansas at Fayetteville.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The principal researcher anticipates that work will be completed on the original goals in fiscal year 2002. The objectives related to research and service to industry, food entrepreneurs and the general public continue to be ongoing.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. In a review of the proposal on May 25, 2000, the assessment was that satisfactory progress was demonstrated in meeting the goals of the Institute.

INTEGRATED PEST MANAGEMENT

Question. Please provide a description of the research that has been funded under the Integrated Pest Management research grant.

Answer. The research supported by this grant develops new pest management tools to address critical pest problems identified by farmers in an agricultural production region. Funds are distributed through the Regional Integrated Pest Management—IPM—Grants Program using a competitive process which includes technical and merit review at the regional and national levels. Projects funded by the Regional Grants Program develop new pest management tactics to replace management tools lost as a result of regulatory action, pest resistance, and other factors. Alternative pest management tactics are identified and validated in a production

setting. Education and training programs are conducted to help producers implement new tactics.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The ability of the Nation's agricultural production system to keep pace with domestic and global demand for food and fiber is dependant on access to safe, profitable, and reliable pest management systems. For a variety of reasons, including the Food Quality Protection Act—FQPA—of 1996 and pest resistance, many of the chemical control options farmers have relied on for many years are no longer available. The loss of these important tools is likely to continue at an accelerated rate over the next several years and will have significant impacts on pest management systems in the U.S. over the next decade. The minor use crops, high value crops grown on relatively few acres, will be particularly hard hit during this period. For these reasons and others, it is essential that farmers be provided with new pest management tools and better information so they can remain competitive in today's global marketplace. These research grant funds are an important part of the Department's plan to assist farmers in finding effective pest management alternatives so they can adjust to changes in pesticide availability resulting from implementation of the FQPA.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this research is to provide farmers with new pest management options that allow them to reduce dependance on pesticides, improve profitability, and protect vital natural resources. The research supported by this research grant has made important contributions to increasing knowledge about new approaches to pest management. The following are some examples:

—In California, a resource and training program was developed in a CD–ROM format to help retail nursery personnel and Master Gardener volunteers solve garden and landscape problems using least toxic pest control methods. This program is now in use in every county in California.

—In Texas, a statistically-valid and user-friendly method was developed to monitor a variety of pests and natural enemies on a number of important crops. As a result, and together with the Texas Agricultural Experiment Station, the Texas Agricultural Extension Service and the Texas Integrated Pest Management Program, personnel are being hired throughout the state to implement IPM strategies for greenhouse and nursery crops.

—In New England, researchers have been investigating the possibility of establishing populations of a natural enemy to control red mite in apple orchards. Results show that this biological control method can probably be sustained in most northeastern orchards and may eradicate the need for chemical control throughout this apple growing area.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1982, $1,500,000; fiscal years 1983 through 1985, $3,091,000 per year; fiscal years 1986 through 1989, $2,940,000 per year; fiscal year 1990, $2,903,000; fiscal year 1991, $4,000,000; fiscal years 1992 and 1993, $4,457,000 per year; fiscal year 1994, $3,034,000; fiscal years 1995 through 2000, $2,731,000 each year; and fiscal year 2001, $2,724,992. A total of $60,494,992 has been appropriated since fiscal year 1981.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. A study of the source of non-Federal funds that contribute to this research effort was conducted in 1993–1994 with the following results: In fiscal year 1993, state appropriations, $841,017, product sales, $33,987, industry grants, $17,081, and other, $31,737; for fiscal year 1994, state appropriations, $2,303,458, product sales, $77,157, industry grants, $210,110, and other, $216,552. These studies, which have not been repeated since 1994, demonstrate a trend toward greater annual state investments in Integrated Pest Management programs.

Question. Where is the work being carried out?

Answer. Scientists in all states are eligible to compete for this funding on a competitive basis. In fiscal year 2000, grants were awarded to Colleges of Agriculture in 23 states.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Due to the passage of the FQPA in 1996, the economic and environmental pressures facing U.S. agriculture are at least as great today as they were

in 1981 when Federal funds were first appropriated for this research grant. It is important for government to address the needs of agricultural producers by supporting research and extension efforts to develop alternative pest management approaches. It is anticipated that the need for this work will only increase as new pests emerge, existing pests become resistant to current control methods, and as new pesticide regulations are implemented.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Projects funded by this research grant are awarded through a competitive process that evaluates relevance to stakeholder needs and technical merit. Progress reports are reviewed to evaluate accomplishments and special attention is given to studies involving new control strategies relating to at-risk sites with pest management usage patterns impacted by FQPA implementations.

INTEGRATED PRODUCTION SYSTEMS, OKLAHOMA

Question. Please provide a description of the research that has been funded under the Integrated Production Systems, Oklahoma grant.

Answer. This grant focuses on the development of efficient management systems for production of watermelons and blackberries under intensively-managed conditions. The work will address biotic and abiotic production components under southeastern Oklahoma conditions for use in production guidelines. This will include planting densities, fertilizer studies, weed management and insect and disease control.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research.

Answer. The principal researcher believes the need for this research is focused on the local area of southeastern Oklahoma, an area that is economically depressed and in need of alternative crops to diversify the dominant cow/calf livestock production.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop new and alternative crops to supplement and diversify the cow/calf livestock agriculture of southeastern Oklahoma with emphasis on horticultural crops. Work to date has shown promise for strawberries, blackberries, cabbage, melons, and blueberries. Research results to support an expert system will be developed for grower use.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Work supported by this grant started in fiscal year 1984 and the appropriations were: fiscal year 1984, $200,000; fiscal year 1985, $250,000; fiscal year 1986, $238,000; fiscal years 1987–1989, $188,000 per year; fiscal years 1990–1991, $186,000 per year; fiscal year 1992, $193,000; fiscal year 1993, $190,000; fiscal year 1994, $179,000; fiscal years 1995–1998, $161,000 each year; fiscal years 1999–2001, $180,000 per year; and fiscal year 2001, $179,604. A total of $3,369,604 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal

Answer. The non-Federal funds and sources provided for this grant were as follows: $165,989 state appropriations in 1991; $160,421 state appropriations in 1992; and $164,278 state appropriations in 1993. Non-Federal support for 1994 was $141,850 for state appropriations. Funds for fiscal year 1995 were $129,552; for 1996, $146,000; for 1997, $152,000; for 1998, $148,000; for 1999, $151,000; and for 2000, $137,000.

Question. Where is this work being carried out?

Answer. This research is being done at the West Watkins Agricultural Research and Extension Center at Lane, Oklahoma, a branch of the Oklahoma State Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives of this project were to develop a production system for alternative crops with economic potential for southeastern Oklahoma. Each year's funding cycle has addressed specific crop and management objectives to be completed over two-years time. These short term objectives have been met for each of the completed two year projects. However, the original objective of developing alternative cropping systems is very long term and has not been completed. The current project is projected for completion in 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Each of the annual project proposals has been put through the institutions review and is reviewed by a CSREES scientist before approval. In addition to the annual review of individual proposals, a comprehensive review of the Lane Agricultural Center, where this research is conducted, was conducted in 1993. This review showed that work supported by this grant is central to the mission of that station and represents an important contribution to the agriculture of the area. This work has provided practical management information for farmers of southeastern Oklahoma that has improved their ability to economically-produce small fruit and vegetable crops. This project is evaluated internally at the end of each year in order to set priorities for the next year.

INTELLIGENT QUALITY SENSOR FOR FOOD SAFETY, NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the Intelligent Quality Sensor for Food Safety, North Dakota grant.

Answer. This is a new project starting in fiscal year 2001. The long-range goal of this project is to build portable intelligent quality sensors for detecting food borne pathogens and measuring food quality. The investigators at North Dakota State University have indicated that they start by reconfiguring and improving currently available sensors to detect the volatile compounds produced by stored meat and relate the volatile compounds to the type of food borne pathogen present in the meat.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need for this research is to develop rapid methods to detect contamination of food by pathogenic microorganisms. An online detection system will increase the speed with which food safety can be assured. Details will be known when the proposal is received from the principal investigator.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this project is to improve the safety and quality of the food. The goal will be achieved by developing intelligent quality sensors to detect food quality and food borne pathogens. The investigators from North Dakota State University have indicated that they have conducted preliminary research on the development of sensors for detecting odors in meat. In this project, they also propose to reconfigure and improve these sensors to detect food borne pathogens. Accomplishments will be reported at the end of this project period.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $141,688.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university will show the matching resources in the proposal.

Question. Where is this work being carried out?

Answer. Research will be conducted at North Dakota State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives of this new project is August 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. There was no project last year and no evaluation was conducted.

INTERNATIONAL ARID LANDS CONSORTIUM, ARIZONA

Question. Please provide a description of the research that has been funded under the International Arid Lands Consortium, Arizona grant.

Answer. Fiscal year 2001 is the eighth year that CSREES has funded the International Arid Lands Consortium. The Forest Service supported the program during fiscal year 1993 to develop an ecological approach to multiple-use management and sustainable use of arid and semiarid lands. Projects that began in 1997–2000 will continue to be funded to address issues of land reclamation, land use, water resources development and conservation, water quality, inventory technology, and remote sensing. All proposals are peer reviewed and awarded competitively, whereby the principal investigator must be from a Consortium member institution.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the consortium is devoted to the development, management and reclamation of arid and semi-arid lands in the United States, Israel, and elsewhere in the world. The International Arid Lands Consortium will work to achieve research and development, educational and training initiatives, and demonstration projects. The current member institutions are the University of Arizona; the University of Illinois; Jewish National Fund; Jordan's Higher Council for Science and Technology; New Mexico State University; South Dakota State University; Texas A&M University, Kingsville; and Desert Research Institute, Nevada. Affiliate membership includes Egypt's Ministry of Agriculture and Land Reclamation Undersecretary for Afforestation. The USDA's Forest Service works very closely with The International Arid Lands Consortium through a service-wide memorandum of understanding.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the Consortium was and continues to be acknowledged as the leading international organization supporting ecological sustainability of arid and semi-arid lands. To date, 74 projects have been funded, 51 of which are to conduct research and development, 14 for demonstration projects, and 9 for international workshops. Funds approximating $6.2 million have been used to fund these projects.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The International Arid Lands Consortium was incorporated in 1991. Funds were appropriated to the Forest Service in 1993. Additional funds were received during each of the years that followed. $329,000 per year has been appropriated for fiscal years 1994 through 1998; $400,000 per year for fiscal years 1999 and 2000; and $493,911 for fiscal year 2001. Total appropriations are $2,938,911.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Members of the International Arid Lands Consortium have provided funds to support the Consortium office in Tucson, Arizona, and for printed materials as needed. Each member has provided travel and operations support for semi-annual meetings, teleconferences, and other related activities. In fiscal years 1993–1996, $60,000 in state appropriations were provided. Industry provided $84,083, $100,000, and $25,000 in fiscal years 1993, 1995, 1996, respectively. Additional funds of $34,000 were received during 1996 from the Egyptian affiliate member to enhance future collaboration. Funds of $50,000 from industry were received during 1998–2000.

Question. Where is this work being carried out?

Answer. Research is currently being conducted at the University of Arizona, South Dakota State University, Texas A&M University, Kingsville, New Mexico State University, University of Illinois, Nevada's Desert Research Institute, and several research and higher education institutions in Israel, Jordan and Egypt.

Question. What was the anticipated completion date for the original objectives of the projects? Have those objectives been met? What is the anticipated completion date of additional or related objectives.

Answer. All research and demonstration projects that started in 1993 through 1996 have been completed. The projects started in 1997 and 1998 are expected to be completed within 12 months depending upon the nature of the project. Projects started in 1999 and 2000 will be completed within two years. Six international conferences and workshops were held during 1994 through 2000. The International Arid Lands Consortium is an organization with long-term goals.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The cognizant staff scientist reviews the project semi-annually and has determined that the research is conducted is in accordance with the mission of the agency.

IOWA BIOTECHNOLOGY CONSORTIUM

Question. Please provide a description of the work that has been funded under the Iowa Biotechnology Consortium grant.

Answer. This Consortium is engaged in jointly planned research activities between Iowa State University—ISU, the University of Iowa—UI, and the City of Cedar Rapids, Iowa. Both fundamental and applied research studies are being conducted to identify opportunities to convert agricultural processing wastes into value-

added products. These waste streams include harvesting residues as well as food processing wastes, the latter of which can place enormous burdens on municipal waste management systems. The overall project involves broad and coordinated research approaches for the cost-effective disposal of wastes along with efforts to recover and utilize byproduct materials generated by the biotechnology industries. Individual projects supported by these funds include various studies in the areas of analytical methodology, separation and recovery of waste components, value-added products from wastes, anaerobic digestion and waste disposal, animal feeding of waste products, and land applications of waste products. Annual funding decisions for individual studies to be included in the overall project are based on a competitive peer review process with panel evaluations.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The environmental burden associated with agriculture and the agricultural processing industries is recognized as a growing problem in the U.S. These researchers are interested in discovery investigations that will lead to technological breakthroughs allowing the recovery and recycling of energy, chemicals, and materials from agriculture-related processing wastes. While these investigators are working with wastes that are generated in the State of Iowa, similar waste streams are generated by agricultural industries across the U.S. Thus, the researchers believe that their studies encompass national, regional, and local needs because the potential technologies, which can be developed from their research, would have nationwide applications. In many respects, this ongoing research effort anticipates the rapidly expanding national interest in bio-based products and genetically modified plants and animals.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The primary goal of this project is to conduct fundamental and applied research aimed at enhancing the recovery and utilization of by-product materials from waste streams generated by new and emerging biotechnology industries, with emphasis on agribusiness. Early in the project, research emphasized characterization of waste streams from agricultural processing industries and developing anaerobic digestion technologies suitable for treating these streams. This early work has resulted in commercially-successful anaerobic digesters used in both Iowa and other states. Success in these endeavors has led to new research activities aimed at producing value-added products from the waste streams. For example, researchers at ISU are investigating ways to produce hydrogen instead of methane from anaerobic digesters; are testing a process to break down agricultural residues such as oat hulls and corn stover into compounds that can be converted to ethanol, lactic acid, polyols, and other industrial chemicals; and are culturing microorganisms that naturally appear in the vents and tanks at agricultural processing plants to see if they could be useful in recovering value-added products from waste streams from the plant. Researchers at UI have developed a biodegradable sugar-based plastic with extraordinary water-absorbant properties for use in personal care products, such as disposable diapers; are effecting bio-transformations of agriculturally-derived byproducts to generate antioxidant food products, vitamin-like growth factors and flavors, such as vanillin; and have demonstrated the value of constructed wetlands for the treatment of landfill leachates.

Question. How long has this work been under way and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $1,225,000; fiscal year 1990, $1,593,000; fiscal year 1991, $1,756,000; fiscal year 1992, $1,953,000; fiscal year 1993, $2,000,000; fiscal year 1994, $1,880,000; fiscal years 1995–1996 $1,792,000 each year; fiscal year 1997, $1,738,000; in fiscal years 1998 through 2000, $1,564,000 each year; and in fiscal year 2001, $1,560,559. A total of $21,981,559 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds and sources provided for this grant were as follows: $623,803 from the State of Iowa, $42,813 from the city of Cedar Rapids in 1991; $768,287 from the State of Iowa, and $365,813 from the city of Cedar Rapids in 1992; $858,113 from the State of Iowa, and $170,000 from the city of Cedar Rapids in 1993; $841,689 from the State of Iowa, and $36,000 from the City of Cedar Rapids in 1994; $1,016,505 from the State of Iowa, and $36,000 from the city of Cedar Rapids in 1995; $862,558 from the State of Iowa, and $40,000 from the City of Cedar Rapids in 1996; $1,044,864 from the State of Iowa, and $50,000 from the City of Cedar Rapids in 1997; $303,549 from the State of Iowa, and $50,000 from the City of Cedar Rapids in 1998; and $293,461 from the State of Iowa, and $59,400

from the City of Cedar Rapids in 1999. In fiscal year 2000, $377,410 was obtained from the State of Iowa.

In addition, leveraging of Federal grant monies has been obtained in the form of industrial matching funds or contracts for related projects. Some of the more noteworthy awards are as follows: $20,000 from Archer Daniels Midland; $342,720 from Ajinomoto; $40,000 from BASF; $18,000 from Bluestem Solid Waste Agency; $1,748,975 from Cargill; $177,200 from Heartland Lysine, Inc.; $48,000 from Horizon Technology, Inc.; $75,274 from Iowa Corn Promotion Board; $65,200 from Iowa Energy Center; $80,273 from National Corn Growers Association, $25,000 from National Pork Producers Council; and $11,500 from PathoGenesis Corporation.

Question. Where is this work being carried out?

Answer. Research is being conducted at Iowa State University and the University of Iowa, in collaboration with the City of Cedar Rapids. In addition, field studies are being conducted at various sites throughout Iowa, including the facilities of participating industries located in Cedar Rapids and other Iowa communities.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. No firm date was established to complete this research at the beginning of the project, and the nature and goals of the research have evolved over the life of the project. The Consortium was originally created as a partnership between the City of Cedar Rapids and the participating universities to assist the city in dealing with wastes associated with corn and oat processing and milling, involving bio-catalysis to produce high-fructose syrups and one of the largest fermentation facilities in the world. More recently, new agricultural biotechnology industries have been attracted to Cedar Rapids and have added greatly to the volume of industrial waste streams. The researchers continue to work closely with the City of Cedar Rapids and the industries generating these waste streams. While significant progress has been made in analyzing waste streams and in devising laboratory procedures for extracting useful products, commercialization is still needed. The City of Cedar Rapids is investing its funds in special waste treatment facilities to conduct large scale tests of new treatment methods. Several years will be required to complete these tests and to refine separation technologies.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Consortium conducts a call for pre-proposals, open to all researchers at ISU, UI, and Cedar Rapids. Projects received from this call are individually peer-reviewed by researchers outside the two universities, who submit written comments. At ISU, a three-member panel made up of individuals from agricultural processing industries is convened to rank the projects and revise budgets based on the written reviews. The decisions made by this panel are used to assemble an overall grant application. Once the completed grant application is submitted to CSREES, it is again evaluated for scientific merit by an agency biotechnology peer panel that makes recommendations regarding approval for the award. The Iowa Biotechnology Consortium proposal for fiscal year 2001 has not yet been received, but once it is available, a CSREES review panel will be convened to review and evaluate the proposed studies in the grant application and to make recommendations regarding overall approval of the project. In addition, the panel will assess progress during the past year as a part of the approval process and post-award management. Also, a site visit was made by a National Program Leader to the research facilities of Iowa State University during the past year.

IR–4 MINOR CROP MANAGEMENT

Question. Please provide a description of the research that has been funded under the IR–4 Minor Crop Management grant.

Answer. The IR–4 Minor Crop Management Program is a highly-effective effort between the State Agricultural Experiment Stations, CSREES, and the USDA Agricultural Research Service—ARS. The basic mission of IR–4 is to aid producers of minor food crops and ornamentals in obtaining needed crop protection products. IR–4 provides the national leadership, coordination, and focal point for obtaining data to support the regulatory clearance through the Environmental Protection Agency—EPA—for pesticides and biological control agents for specialty food crops such as fruits and vegetables as well as non-food crops like turf and ornamentals. In many cases, the agricultural chemical industry can not economically justify the time and expense required to conduct the necessary research for products with limited market potential. With assistance from IR–4, registration-related costs are manageable, and producers of a large number of small acreage crops such as vegetables, fruits, nuts,

herbs and other specialized crops have access to necessary pest control products. In order to accomplish the above, a four-step process has been developed. Step one involves research prioritization. Yearly workshops are conducted that involve growers, commodity organizations, university research and extension specialists, EPA staff, and industry representatives to determine which projects are the most critical to minor crop agriculture. Step two is research planning. Research protocols are written after careful review and comments from stakeholders. Step three is research implementation. A typical IR–4 program consists of both field and laboratory phases. For the field work, researchers apply the crop protection chemical to the target crop according to the experimental protocol. The crop is harvested and transferred to the laboratories where the chemical residues in the crop, if any, are determined. All field and laboratory research is conducted under EPA's Good Laboratory Practices. Step four is data submission and approval. The data are critically reviewed and formatted into a regulatory package and submitted to the EPA for their review. If appropriate, the EPA will approve the submission and grant a tolerance to use the chemical on the target minor crop.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This is a national effort which identifies needs by a network of users, commodity groups, and state university and Federal researchers. This research is highly significant to national and regional as well as local needs. The basic mission of IR–4 is to aid producers of minor food crops and ornamentals in obtaining needed crop protection products. IR–4 is the principal public effort supporting the registration of crop protection products and biological pest control agents for approximately $40 billion minor crop industry, representing 40 percent of the total farm crop value in the U.S.

Question. What was the original goal of this research and what has be accomplished to date?

Answer. The goal is to obtain minor use pesticide registrations with a high priority placed on those pesticides classified as Reduced Risk, assist in the maintenance of current registrations, and to assist with the development and registration of biopesticides. For 2000, IR–4 submitted 115 data packages to EPA that supported 588 new minor food use clearances. During the past three years, over 1,183 new minor food use clearance requests were submitted to IR–4 from growers, state, and Federal scientists and extension specialists. The Food Use part of the IR–4 Program continues to have a high productivity which, according to EPA, supports 40 percent of all EPA pesticide registrations. Since the program's inception in 1963, IR–4 has been granted over 5,500 food use clearances.

For ornamental crops in 2000, IR–4 obtained 1,155 pesticide clearances which included 29 biopesticide uses on ornamental. Since 1977, IR–4 has assisted with the registration of over 8,800 crop protection chemicals and biological pest control agents on nursery stock, flowers, and turf grass. The ornamental industry accounts for over 25 percent or $12 billion of the total minor crop value in the U.S. Biopesticides have been an important IR–4 thrust since 1982. EPA granted 56 IR–4-supported biopesticide food use clearances in 2000.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001.

Answer. Grants have been awarded from appropriated funds as follows: Program redirection in fiscal year 1975, $250,000; fiscal year 1979, $500,000; fiscal years 1976–1980, $1,000,000 per year; fiscal year 1981, $1,250,000; fiscal years 1982–1985, $1,400,00 per year; fiscal years 1986–1989, $1,369,000 per year; fiscal year 1990, $1,975,000; fiscal year 1991, $3,000,000; fiscal years 1992–1993, $3,500,000; fiscal year 1994, $6,345,000; fiscal year 1995 through 1997, $5,711,000 per year; fiscal years 1998 through 2000, $8,990,000 per year; and fiscal year 2001, $8,970,222. A total of $89,469,222 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $891,856 state appropriations and $65,402 industry in 1991; $1,002,834 state appropriations and $104,292 industry in 1992; $1,086,876 state appropriations and $310,133 industry in 1993; $550,160 state appropriations, $408,600 industry, and $924,169 miscellaneous in 1994; $775,432 state appropriations, $266,714 industry, and $751,375 miscellaneous in 1995; and an estimated $800,000 state appropriations, $250,000 industry, and $800,000 miscellaneous in each years of 1996 through 2000. This is a total of $16,387,843 from fiscal year 1991 through 2000.

Question. Where is this work being carried out?

Answer. Field work is performed at the State and Territorial Experiment Stations. Laboratory analysis is conducted primarily at the California, New York, Flor-

ida, and Michigan Agricultural Experiment Stations with assistance by the Puerto Rico, Hawaii, North Dakota, North Carolina, Washington, Virginia, and Idaho Agricultural Experiment Stations. Field Research Centers located in Hawaii, Oregon, Washington, California, Wisconsin, Michigan, North Dakota, South Dakota, North Carolina, Florida, Tennessee, Texas, New Jersey, New York, Maryland, and New Hampshire conduct the field residue program. Protocol development, data assimilation, writing petitions and registration processing are coordinated through the New Jersey Agricultural Experiment Station. ARS is conducting minor use pesticide studies at field locations in California, Georgia, Ohio, South Carolina, Texas, and Washington. ARS laboratories in Georgia, Maryland, and Washington are cooperating with analyses.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. IR–4 is involved in research on biological systems that by their nature are ever changing and presenting new challenges to agriculture. The IR–4 workload is anticipated to be long term because of public sensitivities regarding food safety and the environment, and the eventual loss of a large number of conventional pesticide registrations for minor crops because of the 1996 Food Quality Protection Act—FQPA. FQPA presents a serious challenge to minor crop pest management. It is estimated that there will be significant loss of conventional pesticide registrations for minor crops. IR–4 has developed a strategy to minimize the impact of loss of the critical pest control tools needed by our domestic minor crop growers. The IR–4 strategy involves the following factors: (1) facilitating regulatory clearance of Reduced Risk pesticides for minor crops; (2) when appropriate, develop risk mitigation measures for existing minor use registrations; (3) assist with the registration of biologically-based pest control products for minor crops; and (4) register and maintain pesticides essential to integrated pest management systems.

With the implementation of the 1995 Strategy Plan, IR–4 has achieved significant accomplishments. Since FQPA requires that EPA review all of the nearly 10,000 tolerances by 2006, it is anticipated that the IR–4 program will have a significant challenge to help bring new crop protection solutions to minor crop growers well into this century.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Each year the grant applications are peer reviewed and reviewed by CSREES senior scientific staff. A summary of those reviews indicate excellent progress in achieving the objective of providing safe pest controls for minor uses. In December 1997, CSREES sponsored a peer review of the project by a panel chaired by a retired Administrator of USDA–ARS and representatives from USDA, EPA, commodity groups, the food processing industry, the crop protection industry and the land grant university system. A report was issued January 1998. The report covered the areas of response to FQPA, project operations, accomplishments, good laboratory practices, the ARS companion program, and future outlook with specific recommendations for each area. The review panel was "in unanimous agreement that IR–4 is a very successful program which serves an important need to producers of agricultural products for ultimate consumption by the American public. The program is effectively and efficiently administered by a dedicated professional staff." The goal in 2000 and beyond will be to build on this basis and fully implement the recommendations of the panel. This review and previous reviews have resulted in significant improvement in the IR–4 program's productivity and quality of research. Additionally, the customers served by IR–4 have provided input to the program to enhance its effectiveness.

JOINTED GOATGRASS—AEGILOPS CYLINDRICUM, WASHINGTON

Question. Please provide a description of the research that has been funded under the Jointed Goatgrass, Washington grant.

Answer. Research is conducted by about 30 scientists in 10 western and mid-western states on systems for suppression of jointed goatgrass in winter wheat production systems. Research includes integrated cultural management, reduction of seed in the soil, identification of more competitive wheat varieties and crop rotations, and best management practices projects. These projects demonstrate to wheat producers the integrated system for managing jointed goatgrass and show how to determine the most effective and efficient way to introduce herbicide-resistant wheat into the integrated system. The premier research projects continue to be four regional, long-term integrated management studies conducted across nine states. In these studies, various cultural control practices such as seeding rates, row spacing, planting dates,

seed size, competitive varieties, fertilizer placement, crop rotations, and tillage practices are being evaluated as an integrated management system for the suppression of jointed goatgrass. Research is also being conducted on soil conditions responsible for persistence of jointed goatgrass in the soil seedbank, timing and intensity of tillage on seed persistence in the soil, gene flow between wheat and jointed goatgrass, identification of crop traits making wheat more competitive against jointed goatgrass and modeling on how agronomic practices affect herbicide-resistance in jointed goatgrass. All funded projects have a technology transfer component and a national extension coordinator who insures that growers and extension personnel are fully informed about all options for managing this devastating weed. The National Extension Coordinator is housed at Washington State University.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. Jointed goatgrass infests nearly five million acres of winter wheat lands in the west and mid-west. Through the efforts of the national program, the rate of spread of this weed has decreased significantly in the past five years. However, jointed goatgrass still costs wheat producers in the U.S. an estimated $145 million annually in lost yield, reduced quality, production of less profitable crops, increased management costs, and reduced land values. Control of jointed goatgrass in a standing wheat crop is impossible with currently available technology because seed survives in the soil for five years or more. Because jointed goatgrass is genetically related to wheat, there are no herbicides currently available that will control jointed goatgrass selectively in wheat. Jointed goatgrass has increased rapidly in the past 25 years in part because of widespread adoption of conservation tillage systems. Jointed goatgrass proliferated in such systems, and it greatly impeded the universal adoption of such reduced tillage. The principal investigator and the National Association of Wheat Growers believe this research is of high national and regional importance.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this project is to reduce the devastating effect of jointed goatgrass on winter wheat production and quality, and to prevent the spread of this weed into new, non-infested areas. Numerous individual cultural control practices have been evaluated in several states as to their effectiveness for the suppression of jointed goatgrass and on the growth and yield of wheat. Four regional, long-term integrated management projects have been established where three or more individual cultural control practices have been combined into an integrated management system for the suppression of jointed goatgrass in winter wheat. Results from these projects show that combining three or more individual cultural control practices into an integrated management system will suppress jointed goatgrass and improve the yield and quality of winter wheat. Significant progress has been made in understanding gene flow between wheat and jointed goatgrass. This information will be very valuable in managing the introduction of herbicide-resistant wheat for the control of jointed goatgrass. A bioeconomic model has been constructed that combines jointed goatgrass population biology information, weather data, and responses of jointed goatgrass and wheat to various cultural control practices, and predicts wheat yields, response of jointed goatgrass, and economic outcomes from changing production practices. In 2000, two regional best management practices projects were initiated to demonstrate to wheat producers the integrated systems approach for managing jointed goatgrass and to determine the most effective and efficient way to introduce herbicide-resistant wheat into the integrated system. In 1999, a symposium on jointed goatgrass was held as part of the Western Society of Weed Science meetings. At this symposium, ten papers were presented outlining the latest research and technology transfer activities of this national program. Information presented at this symposium was used to establish new priorities for this program and to guide the program for the next five years. Since 1994, six regional symposia have been held to transfer to producers and extension personnel the latest information on the identification, biology, and management of jointed goatgrass in winter wheat. A World Wide Web site has been established and updated annually to further enhance information transfer. Summaries of annual progress reports are also posted on the website. Also, a videotape, a poster, and a slide set have been produced to assist extension personnel in transferring to producers information on jointed goatgrass biology and management.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994. The appropriation for fiscal year 1994 was $329,000; for fiscal years 1995–1997, $296,000 each year; $346,000 for fiscal year 1998; $360,000 each year in fiscal years 1999 through

2000; and $359,208 in fiscal year 2001 bringing the total appropriations to $2,642,208.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant were as follows: for 1994, $82,198 state appropriations, $82,256 from industry, and $14, 871 miscellaneous; for fiscal year 1995, $67,442 state appropriations, $38,496 from industry, $13,304 miscellaneous; for each fiscal year 1996–1997, an estimated $70,000 state appropriations, $50,000 from industry, and $14,000 miscellaneous; for 1998, $231,335 state appropriations, $42,570 from state wheat commissions, and $15,000 miscellaneous; for fiscal years 1999 and 2000, $258,122 state appropriations, $87,750 state wheat commissions, and $72,100 miscellaneous. The total of non-Federal funds has been $1,691,416.

Question. Where is this work being carried out?

Answer. The research is being conducted by university scientists in 10 western states that have serious jointed goatgrass infestations. These universities include Washington State University, which is the principal coordinating institution and which receives the grant, and at universities in Colorado, Kansas, Nebraska, Oklahoma, Utah, Oregon, Idaho, Montana, and Wyoming.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initiated to accomplish significant results in six years, and significant accomplishments have been made. However, the jointed goatgrass problem will require four more years to accomplish all of the objectives and to have effective management practices available for producers to control jointed goatgrass in winter wheat.

Question. When was the agency evaluation of this project? Provide a summary of the last evaluation.

Answer. Each year the sub-projects are peer reviewed for scientific merit and adherence to the program objectives by a panel of scientists and producers. CSREES's scientific staff reviews the overall grant annually. Sub-contract grants to the various universities are awarded using a peer review process coordinated by Washington State University.

LIVESTOCK AND DAIRY POLICY, NEW YORK AND TEXAS

Question. Please provide a description of the research that has been done under the Livestock and Dairy Policy, New York and Texas grant?

Answer. The purpose of this grant is to assess the possible economic impacts on the U.S. livestock and dairy sectors from various macroeconomic, farm, environmental, and trade policies and new technologies. Both Cornell University and Texas A&M University conduct analysis of these policies and disseminate the information to policymakers, farmers, and agribusinesses. Cornell focuses on sector-level dairy policies, and Texas A&M focuses on policies affecting livestock and dairy at the farm level.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Information on the implications of new and alternative farm, trade, and macroeconomic policies affecting the livestock and dairy sectors is of special interest to policy-making officials, farmers, and others. Such information enables farmers and agribusinesses to make necessary adjustments to their operations to enhance profitability and for national public officials to consider alternatives to sustain adequate supplies and minimize costs. The principal researchers believe this research to be of national, regional, and local significance.

Question. What was the original goal of this research and what has been done to date?

Answer. The original goal was to establish a specialized research program that could provide timely and comprehensive analysis of numerous policy and technological changes affecting livestock and dairy farmers and agribusinesses and advise them and policymakers promptly of possible outcomes. This goal has been achieved, and the program continues to provide timely assessments and evaluations of provisions and proposed changes in agricultural policies, the General Agreement on Tariffs and Trade, and the North American Free Trade Agreement; various income and excise tax measures; and alternative pricing measures for milk. The institutions were integrally involved in several current studies relating to dairy provisions in the 1996 farm legislation. These studies contributed significantly to the development of proposed regulations called for in this legislation. Both institutions maintain exten-

sion outreach programs to disseminate results of their analysis throughout the U.S. They have organized a national Dairy Markets and Policy Extension committee to advise and assist them in this effort. This latter committee was especially helpful to USDA in educating farmers about proposed milk marketing order changes last year.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $450,000; fiscal year 1990, $518,000; fiscal years 1991–1993, $525,000 per year; fiscal year 1994, $494,000; fiscal years 1995–1998, $445,000 each year; fiscal years 1999 through 2000, $475,000 each year; and fiscal year 2001, $568,746. A total of $6,335,746 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $37,420 State appropriations in 1991; $162,086 State appropriations and $133,278 product sales for a total of $295,364 in 1992; $301,817 State appropriations, $1,412 industry, and $7,121 miscellaneous for a total of $310,350 in 1993; $24,702 State appropriations and $5,961 industry for a total of $30,663 in 1994; $235,526 State appropriations for 1995; $250,000 in State appropriations for 1996; and approximately $245,000 in State funding for 1997 and 1998.

Question. Where is this work being carried out?

Answer. The research is being conducted at Cornell University and Texas A&M University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This program is of a continuing nature for the purpose of assessing existing issues and proposed policy changes affecting the livestock and dairy industries.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. No formal evaluations of this project have been conducted. Annual proposals for funding, however, are peer reviewed for relevance and scientific merit. CSREES staff are also in regular contact with principal researchers at each institution to discuss progress toward project objectives. Discussions with congressional staff and USDA policy makers support the usefulness of policy analysis provided by this project.

LOWBUSH BLUEBERRY RESEARCH, MAINE

Question. Please provide a description of the research that has been funded under the Lowbush Blueberry Research, Maine grant.

Answer. Interdisciplinary research is being conducted on many aspects of lowbush blueberry culture and processing including investigations into factors affecting processing quality; biological control of insect pest; sustainable pollination, weed, disease, and fertility management; cold heartiness; and group water protection.

Question. According to this research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Maine produces 99 percent of all lowbush blueberries or 33 percent of all the blueberries in the U.S. This work has major local impact, and helps maintain the continued availability and high quality of this native fruit commodity.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original research goal was to provide answers to unique lowbush blueberry production, pest, and processing problems. Research to date indicates that the field sanitizer was able to use heat to control insect pests without adversely affecting plant growth, while providing a non-chemical alternative for pest management. Biological control agents were used to control fireworms. Lowbush blueberry yields were increased by use of native and alfalfa leafcutter bees. Mechanical harvesting was found to be effective and produced equivalent yields and fruit quality when compared to hand harvest, resulting in growers having a more efficient harvesting method for blueberries. Products for the use in food industry are being extracted from cull berries, therefore, improving utilization, economics in processing, and reducing waste.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1990, $170,000; fiscal year 1991, $202,000; fiscal years 1992 and 1993, $185,000 per

year; fiscal year 1994, $208,000; fiscal years 1995 to 2000, $220,000 per year; and in fiscal year 2001, $259,428. A total of $2,529,428 has been appropriated to date.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Direct industry support was about $65,000 per year from fiscal years 1996 to 2001.

Question. Where is this work being carried out?

Answer. Research is being carried out at the University of Maine.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives have not yet been met. The University of Maine researchers estimate that the project will be concluded at the end of fiscal year 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last agency merit review of this project was January 2000. Research accomplishments included: investigations of post emergence; grass specific herbicides to control weeds rather than the use of broad spectrum; timing of fertilization treatments; and comparisons of various fertilizer combinations have indicated that fertilizers containing nitrogen increase yields. Other research accomplishments include the insect management of blueberry maggots through behavioral control and the use of less toxic chemicals from control of blueberry flea beetles.

MAPLE RESEARCH, VERMONT

Question. Please provide a description of the research that has been funded under the Maple Research, Vermont Grant?

Answer. The research aims to determine the sources of heavy metals and other substances accidentally introduced into maple sap and syrup, and to explore methods to reduce or eliminate contaminants through modification of maple sap collection and syrup manufacturing equipment and through changes in production techniques.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local focus for this research?

Answer. Maple plays a substantial role in the cultural heritage of areas which produce syrup. Syrup is the first agricultural crop of the year in these areas, and provides a significant source of income to rural America during a season when other agricultural practices are inactive. Identifying sources of processing contaminants and finding ways to reduce contaminants is critical in assuring consumers that maple food products are not harmful.

Question. What was the original goal of this research and what has been accomplished?

Answer. The goal of this research project is to conduct investigations on maple tree physiology, the ecology and management of maple stands, and related aspects of the maple syrup industry in Vermont and throughout the northeast. The primary goal of this work has been to identify sources of lead and other contaminants of maple syrup and to determine ways to reduce these contaminants.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Work under this project began in fiscal year 1985. Annual appropriations in support of this project are as follows: fiscal year 1985—$100,000; fiscal years 1986 and 1987—$95,000 per year; fiscal years 1988 and 1989—$100,000 per year; fiscal years 1990 through 1993—$99,000 per year; fiscal year 1994—$93,000; fiscal years 1995 through 1997—$84,000 each year; fiscal years 1998 through 2000—$100,000 per year; and fiscal year 2001, $118,738. This sums $1,649,738.

Question. What is the source and amount of non-Federal funds provided by fiscal years?

Answer. Non-Federal fiscal support for this project is provided by two primary sources and one secondary source. The primary sources are state appropriations and product sales. The secondary source is local support and national maple industry support, however that support is not available each year. The total non-Federal contribution from these sources provides an average ratio of .86 to 1. The low ratio was .6 to 1 early in the project. More recently the ratio has been 1.1 to 1.

Question. Where is this work being carried out?

Answer. This research is being conducted at the Proctor Maple Research Center, a field station of the Vermont Agricultural Experiment Station at the University of Vermont.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The work from this project, relative to maple tree physiology and management of maple stands has been completed. Identifying the sources of heavy metals and other contaminants in maple sap and syrup, as well as research determining the best and most cost-effective way to reduce contamination is ongoing with as anticipated completion date of 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Project proposals and progress reports are reviewed and evaluated annually by USDA. Satisfactory progress has been made on tree physiology and maple tree—sugar bush—management. Work on identifying sources and controlling contaminants of maple products is progressing and is being monitored by the agency.

MEADOWFOAM, OREGON

Question. Please provide a description of the research that has been funded under the Meadowfoam, Oregon grant.

Answer. This funding was used for genetics and biotechnology research directed towards increasing the productivity of the oilseed crop meadowfoam. This crop is grown as a source of oil for chemical, cosmetic, and personal care product industries. The research has focused on the development of genetically and agronomically-superior varieties for farmers, processors, and end users. The proposal will be internally and externally reviewed for scientific merit. This research will be reviewed by state and Federal scientists and administrators for merit and progress.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This research fills the need for the development of renewable sources of industrial chemicals and of new rotation crops for agriculture. This research is needed to create a more abundant and inexpensive supply of meadowfoam oil for the chemical industry. The oil produced by meadowfoam has unique physical and chemical properties that are being exploited by the chemical industry to develop a wide range of chemical feedstocks and end products. Meadowfoam can be grown on wet soils, a rarity, and is widely used by turf and forage seed producers as a rotation crop in grass seed production fields. The development of agronomically-superior varieties is needed to increase on-farm productivity, grower profits, and the supply of meadowfoam oil.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original long range goal of this research was to increase the productivity of meadowfoam as an oilseed crop for farmers. This research had led to the development of new varieties, Wheeler and OMF164, that out-yield previous varieties and state of the art tools for genetically manipulating economically-important traits, for example, chemical composition of the oil, insect resistance, and oil yield. Wheeler was officially released to the seed industry in 2000. OMF164 is scheduled for release to the seed industry in 2001. Significant progress has been made on the development of molecular tools and a genome map for increasing selection efficiency and precision and gaining an understanding of the genetics of economically-important traits.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in 1999 and the appropriation for fiscal years 1999 through 2000 is $300,000 per year, and for fiscal year 2001 is $299,340. A total of $899,340 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Oregon State University is providing $60,781 in matching funds.

Question. Where is this work being carried out?

Answer. The research is being carried out in field, greenhouse, and laboratory facilities at Oregon State University, Corvallis, Oregon.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional and related objectives?

Answer. The anticipated completion date for the original objectives is June 2001. The project start date was July 1, 1999. The original objectives have been met or will be met by June 2001, and significant progress has been made towards additional and related objectives. The latter should be met by June 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator as appropriate. The evaluation is conducted by the cognizant staff scientist who has determined that research to date is in accordance with the mission of the agency.

MICHIGAN BIOTECHNOLOGY CONSORTIUM

Question. Please provide a description of the work that has been funded under the Michigan Biotechnology Consortium grant.

Answer. The objective of the Consortium's research program is to develop bioprocessing technology to manufacture products from agricultural raw materials; to increase the utilization of agricultural raw materials; reduce agricultural surpluses; degrade agricultural and associated wastes, thereby decreasing environmental costs of agricultural products and processes; and to reduce the need to import foreign petroleum.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that the development of value-added products from agricultural raw materials will increase their utilization, reduce commodity surpluses and environmental costs, and decrease the need for foreign petroleum thus contributing significantly to local, regional, and national priorities.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this research is to select and develop market-viable technologies for the production of industrial products from agricultural raw materials. The Consortium has used funding from the Special Grants program to develop technologies now in the marketplace. Examples include production of lactic acid from corn which resulted in the building of a $200 million plant in Nebraska. Agricultural resources were used as a feedstock for plant growth formulations that enhance productivity and reduce plant stress; biodegradable plastic resins for compostable films used in lawn and leaf litter bags; agricultural mulch films and other soluble films; biodegradable plastic resins for injection molded products such as disposable cutlery; all-natural food flavors; calcium magnesium acetate deicer; and biodegradable adhesives. The byproduct of cheese production—whey—was used to produce high-quality, high-value optically-pure chiral intermediates for pharmaceuticals and agrochemicals.

A sand/manure separation system for dairy farms was developed to cost-effectively separate manure from sand and recycle both components. Numerous enzymes have been characterized and are now in use to provide value added modifications in the processing of agricultural products. Improved methods to clean up herbicides, pesticides, and other agricultural materials have been developed.

Special grant funding in fiscal year 2000 allowed the Consortium to develop high value animal feeds from agricultural residues; biodegradable paint/rust removers; biobased polymers for medical, electronic, and environmental applications; naturally-occurring bioactive compounds and biocontrol agents; and methods to improve the economics of ethanol production by producing high value co-products. Funding also supported a technology transfer program that brought researchers from over 30 land grant universities, Federal laboratories, and Departments of Agriculture together with Consortium researchers to review numerous commercially-promising biobased agricultural technologies.

Question. How long has this work been under way and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $1,750,000; fiscal year 1990, $2,160,000; fiscal year 1991, $2,246,000; fiscal years 1992–1993, $2,358,000 per year; fiscal year 1994, $2,217,000; fiscal year 1995, $1,995,000; fiscal years 1996 and 1997, $750,000 per year; fiscal years 1998 through 2000, $675,000 per year; and fiscal year 2001, $723,405. A total of $19,332,405 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant were as follows: $1,750,000—State of Michigan, $160,000—industry, and $1,000,000 from miscellaneous in 1991; $1,750,000—State of Michigan, $175,000—industry, and $1,000,000 from miscellaneous in 1992; $1,750,000—State of Michigan and $100,000 from industry in 1993; $1,750,000—State of Michigan, $175,000—industry, and $100,000 from miscellaneous in 1994; $200,000—State of Michigan and $2,035,000 from in-

dustry in 1995; $1,250,000—State of Michigan, $350,000—industry, and $6,000,000 from miscellaneous in 1996; $402,500—industry and $10,000,000 from miscellaneous in 1997; $500,000—State of Michigan and $1,060,000 from industry in 1998; $1,400,000—State of Michigan and $1,356,000 from industry in 1999; and $1,500,000 from industry in 2000. A total of $35,763,500 has been provided to support this work by non-Federal sources.

Question. Where is this work being carried out?

Answer. The research is being conducted on the campus of Michigan State University and at the Michigan Biotechnology Institute International. Demonstrations of technology occur throughout the U.S.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Consortium reports specific milestones for technology development over a five-year period. Specific milestones for technologies which will be commercialized in fiscal year 2001 were established in fiscal year 1997 and updated annually. The Consortium has been successful in effectively closing the gap between research and commercialization within each five-year period.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Michigan Biotechnology Institute was evaluated for scientific merit by an agency peer review panel on April 17, 2000. The panel recommended approval of the project pending receipt of supplemental information on administrative aspects of the project. The supplemental information was received, and the agency is satisfied that the program is being administered in compliance with the purpose of the grant. A merit review panel will be convened to re-evaluate the project upon receipt of a proposal for fiscal year 2001.

MIDWEST ADVANCED FOOD MANUFACTURING ALLIANCE, NEBRASKA

Question. Please provide a description of the research that has been funded under the Midwest Advanced Food Manufacturing Alliance, Nebraska grant.

Answer. The stated purpose of the Midwest Advanced Food Manufacturing Alliance is to expedite the development of new manufacturing and processing technologies for food and related products derived from U.S.-produced crops and livestock. The Alliance involves research scientists in food science and technology, food engineering, nutrition, microbiology, computer science, and other relevant areas from 12 leading midwestern universities and private sector researchers from numerous U.S. food processing companies. Specific research projects are awarded on a competitive basis to university scientists with matching funds from non-Federal sources for research involving the processing, packaging, storage, and transportation of food products. Projects selected for funding are merit reviewed by non-participating university scientists, industry scientists, and scientists from professional organizations. Close cooperation between corporate and university researchers assure that the latest scientific advances are applied to the most relevant problems and that solutions are efficiently transferred and used by the private sector.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this project?

Answer. The principal researcher believes the food manufacturing industry is the number one manufacturing industry in the midwestern region and that opportunities for trade in high-value processed food products will grow exponentially on a worldwide basis. The Alliance is positioned to fill the void in longer range research and development for the food industry. Though the focus is regional, it is anticipated that impacts may also be local and national.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal was to expedite the development of new manufacturing and processing technologies for food and related products derived from U.S.-produced crops and livestock. This is accomplished by conducting a research proposal competition among faculty from the 12 participating universities to fund research projects where matching funds are available from industry. Proposals are reviewed for scientific merit by independent scientists, and final selection of projects includes consideration of industrial interest and commitment on non-Federal matching funds.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994. The appropriation for fiscal year 1994 was $470,000; for fiscal years 1995–2000, $423,000 each year; and fiscal year 2001, $460,984. A total of $3,468,984 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. Industry matching funds were $823,148 in fiscal year 1994; $414,164 in fiscal year 1995; $576,600 in fiscal year 1996; $429,579 in fiscal year 1997; $557,549 in fiscal year 1998; and $490,496 in fiscal year 1999. Information on non-Federal funds for fiscal years 2000 and 2001 are not available at this time.

Question. Where is this work being carried out?

Answer. The work is being coordinated by the Nebraska Agricultural Experiment Station at Lincoln. Specific research projects are also being conducted at eight other universities that are part of the Alliance.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The overall objectives of the Alliance are ongoing. Funding supports the continuing and evolving needs and opportunities for foods manufactured and processed from U.S.-produced crops and livestock. Nine projects were funded from fiscal year 1998 funds with anticipated completion and final reports due by May 31, 2000. Reports from 1998 funded projects indicate that substantial progress has been made in the direction of expediting the development of new manufacturing and processing technologies. Eleven projects were funded from fiscal year 1999 funds with anticipated completion and final reports due by May 31, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. A review of the proposal for fiscal year 2000 was conducted on May 24, 2000.

MIDWEST AGRICULTURAL PRODUCTS, IOWA

Question. Please provide a description of the research that has been done under the Midwest Agricultural Products, Iowa program.

Answer. The Midwest Agribusiness Trade Research and Information Center does applied research to improve the global competitiveness and marketability of agricultural products produced in the Midwest and disseminates the results to small and medium-sized agribusinesses. Projects include analyses of potential international markets for U.S. agricultural products and equipment/technology; attitudes of foreign consumers; and development of new/improved U.S. products to meet foreign needs. The overall project proposal was peer reviewed at the university level, and individual research activities are reviewed by the principal investigator and other faculty.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that agribusiness firms in the United States, especially small to medium-sized firms, have a large unrealized potential to expand export sales and foreign business ventures. These untapped opportunities exist in the Pacific Rim and in emerging markets such as Mexico, China, and Eastern Europe. The reluctance of small to medium-sized firms to explore these market opportunities is, in part, due to the high cost of market information and analysis and the perceived high risk of doing business in new markets. This project meets the needs of these firms at the local, regional, and national level.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to enhance the exports of agricultural commodities, value-added products, and equipment produced by Midwestern agribusiness firms by providing research and educational programs as well as assistance to individual firms. Recent research has analyzed the impact of several international developments on U.S. Exports: Berlin Accord Reforms; development of Chinese agriculture and potential for exports of agricultural products and agricultural and processing equipment; comparative advantage of Argentina in corn, soybean, wheat, sunflower, beef, and pork production; and Central and Eastern Europe accession to the European Union. A "Port of Des Moines" study examined the potential for developing a U.S.-Canada-Mexico trade corridor along I–35 as a means of facilitating north-south trade and creating business opportunities in the central Midwest region. In total, over 20 research papers were prepared in 1999. The primary audience is small- to medium-sized agribusiness firms because they often lack the resources to conduct studies or acquire sufficient marketing information necessary for international trade.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1992. The appropriation for fiscal years 1992–1993 was $700,000 per year; fiscal year 1994, $658,000; fiscal years 1995–2000, $592,000 per year; and fiscal year 2001, $644,579. A total of $6,254,579 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $185,495 State appropriations and $373,897 industry for a total of $559,392 in 1992; $183,192 State appropriations and $318,966 industry for a total of $502,158 in 1993; $127,948 State appropriations and $500,394 industry for a total of $628,342 in 1994; $258,053 State appropriations and $389,834 industry for a total of $647,887 for 1995; $165,425 State appropriations for 1996; $162,883 State appropriations for 1997; $143,850 State appropriations and $51,384 industry for a total of $195,234 in 1998; $72,934 State appropriations and $45,860 industry for a total of $118,794 in 1999; and $76,563 State appropriations in 2000. Industry contributions were not reported for 1996, 1997, and 2000.

Question. Where is the work being carried out?

Answer. The program is carried out by Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1992 was for a period of 24 months. However, the objective of expanding the export capacity of small to medium-sized agribusiness firms is an ongoing regional and national concern. The current phase of the program will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in April 2000, as it evaluated the project proposal for 2000, and concluded that: "The project has sound objectives and procedures that are helping agribusiness effectively expand markets for U.S. agricultural products leading to a highly competitive agricultural production system and enhanced economic opportunity for Americans. The principal investigators are well recognized for their leadership in this area."

MILK SAFETY, PENNSYLVANIA

Question. Please provide a description of the research that has been funded under the Milk Safety, Pennsylvania grant.

Answer. The overall goal of the milk safety program is to provide insight into factors that help ensure an adequate and safe milk supply. The research has focused on factors that affect milk production, processing, manufacturing, and consumption. Special attention has been given to ways of preventing and/or treating pathogens that enter the milk supply. Projects are selected for funding each year based on competitive, peer reviews by scientists outside the recipient institution. The fiscal year 2000 grant is supporting research through June 30, 2001. A research proposal in support of fiscal year 2001 appropriations has been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The question of microbial safety is of paramount interest to the milk/dairy industry at all levels. Dairy products have been associated with several large outbreaks of staphylococcal food poisoning. Coagulase negative Staphylococcus infections are one of the most common intramammary infections of dairy cattle, and bovine mastitis, the most important infectious disease affecting the quality and quantity of milk produced in the Nation, costs producers an average $180 per cow per year. Listeria monocytogenes is present in about four percent of raw milk and has the potential to grow to dangerous levels during refrigerated storage, making pasteurization critical in preventing foodborne illnesses from this organism. The population of infants, elderly, and immunosuppressed individuals at risk for Listeriosis in the U.S. continues to grow rapidly. Understanding the growth of Listeria will provide pathways to minimize the occurrence of food poisoning related to milk and dairy products. Pathogenic E. coli species, including E. coli O157:H7, are of public health concern. For products which receive minimal thermal processing or which may be preserved primarily by acidification, development of additional means of controlling the growth of these foodborne pathogens is of critical importance in guaranteeing a safe milk supply. Ensuring safety of dairy products impacts not only consumer health and confidence in the safety of the food supply, but economic viability as well.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The research is aimed at minimizing or eliminating future foodborne disease outbreaks from milk and dairy products. Researchers demonstrated that when subjected to a sublethal heat shock prior to pasteurization, Listeria monocytogenes becomes much more heat-resistant than previously thought, likely requiring the design of new pasteurization guidelines to ensure the safety of dairy products. A simple, fast, sensitive, specific and inexpensive method was developed for the detection of Listeria monocytogenes in dairy products that will allow dairy processors to rapidly and easily screen for the presence of this pathogen in their products and in the processing environment. A computer model of pathogenic growth in dairy products has been developed for common pathogens in specific products. These predictive models are valuable risk assessment and Hazard Analysis and Critical Control Point—HACCP—implementation tools for milk/dairy industry. It is estimated that Staphylococcus aureus is responsible for nearly one-third of all food poisoning in the U.S., and this illness results from the ingestion of Staphylococcal toxins. Researchers have identified potential approaches for enhancing natural defense mechanisms of the bovine mammary gland through vaccination and immunoregulation. Discoveries of factors influencing growth of Staphylococcus aureus are being used to prevent or contain growth of this pathogen in foods.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded for milk consumption and milk safety from funds appropriated as follows: fiscal years 1986 through 1989, $285,000 per year; fiscal year 1990, $281,000; fiscal year 1991, $283,000; fiscal year 1992, $284,000; fiscal year 1993, $184,000; fiscal years 1994–1998, $268,000 per year; fiscal year 1999, $250,000; fiscal year 2000 $297,500; and fiscal year 2001, $374,175. A total of $4,433,675 has been appropriated for milk safety.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The University estimates that non-Federal funds contributed to this project include the following costs and salaries: $265,000 for fiscal year 1991; $224,700 for fiscal year 1992; $142,600 for fiscal year 1993; $252,168 for fiscal year 1995; $621,903 for fiscal year 1998; $460,423 for fiscal year 1999; and $265,168 for fiscal year 2000. No data available for fiscal years 1994, 1996, and 1997.

Question. Where is the work being carried out?

Answer. The research is being conducted at the Pennsylvania State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The researchers anticipate that research supported by this grant should be concluded in 2002. Continuing and evolving needs related to the safety of milk and dairy products are expected to reveal new related objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. The proposal supporting the fiscal year 2000 appropriation was reviewed on May 25, 2000, and the agency science specialist concluded that the projects addressed important issues related to safety of milk and dairy products, were scientifically sound, and that satisfactory progress was being demonstrated using previously awarded grant funds.

MINOR USE ANIMAL DRUGS

Question. Please provide a description of the research that has been funded under the Minor Use Animal Drug grant.

Answer. The National Agricultural Program to Approve Animal Drugs for Minor Species and Uses—NRSP–7—was established to obtain the Food and Drug Administration—FDA—approval of animal drugs intended for use in minor species and for minor uses in major species. The objectives of the program are to identify the animal drug needs for minor species and minor uses in major species; generate and disseminate data for the safe, effective, and legal use of drugs used primarily in therapy or reproductive management of minor animal species; and facilitate the FDA in obtaining approvals for minor uses. Studies are conducted to determine efficacy, target animal safety, human food safety, and environmental safety. The shortage of drugs for minor food animal uses is a concern well recognized by animal producers, veterinarians, animal scientists, and regulators. The funds for the special research grant are divided between the four regional animal drug coordinators and

the headquarters at Cornell University for support of the drug approval program. The NRSP–7 funds are being utilized by the State Agricultural Experiment Stations where the regional animal drug coordinators are located as well as by other stations to develop data required for meeting approval requirements. Participants in the research program consist of the regional coordinators, State Agricultural Experiment Stations, USDA's Agricultural Research Service—ARS, schools of veterinary medicine, and the pharmaceutical companies. Research priorities are continually updated through workshops and meetings with producer groups representing species categories such as small ruminants, game birds, fur-bearing animals, and aquaculture species. Each request for drug approval is evaluated by the technical committee according to established criteria which include significance to the animal industry, cost of developing the necessary data, availability of a pharmaceutical sponsor, and food safety implications. The fiscal year 2000 research grants terminate between May and July 2002. The 2001 grant proposals have been requested by the agency. All grants are reviewed for relevance to industry needs and undergo scientific peer review.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Animal agriculture throughout the U.S. has relied on chemical and pharmaceutical companies to provide their industry safe and efficacious drugs to combat diseases and parasites. The high cost incurred to obtain data to approve these drugs, when coupled with limited economic returns, has limited the availability of approved drugs for minor uses and minor species. The economic losses due to the unavailability of drugs to producers for minor species and minor uses threatens the economic viability of some segments of the animal industry. The need for approved drugs to control diseases in minor species and for minor uses in major species has increased with intensified production units and consumer demand for residue-free meat and animal products. The program provides research needed to develop and ultimately culminate in drug approval by FDA for the above purposes. The goals are accomplished through the use of regional animal drug coordinators as well as a national coordinator to prioritize the need; secure investigators at Federal, state, and private institutions; and oversee the research and data compilation necessary to meet Federal regulations for approval. All drug approvals are national, although industry use may be regional. For example, certain aquaculture and the game bird industries are concentrated in specific geographic sections of the country. The administration believes this research to be of national, regional, or local need.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the NRSP–7 Minor Use Animal Drug Program was to obtain approval by the FDA for animal drugs intended for use in minor species and for minor uses in major species. This continues to remain the dominant goal of the program. In recent years, the research program has expanded or given additional emphasis to aquaculture species, veal calves, and sheep. The importance of environmental assessment, residue depletion, determination of withdrawal time, and occupational environmental safety have increasingly been given more attention during the approval process to help assure consumer protection.

Since the beginning of the program, over 300 drug use requests have been received from animal producers, universities, and veterinarians for the development of data in support of the filing of a New Animal Drug Approval. Currently, data representing 30 Public Master Files have been published in the Federal Register. The Public Master File publication enables pharmaceutical companies to extend their label claims to minor species by referencing the published file in their New Animal Drug Approval filing. Furthermore, these data also enter the public domain as presentations to professional groups, publication of peer-reviewed articles, and inclusion in the Food Animal Residue Avoidance Databank—FARAD. Through these channels, NRSP–7 provides data supporting the safe and effective use of therapeutics in minor species by consumers. Moreover, the Minor Use Animal Drug Program has averaged an expenditure of only about $200,000 for each drug approved for minor species.

In 2000, two Public Master Files, based on data submitted by NRSP–7, were published in the Federal Register indicating drug approval by the FDA. They were: ceftiofur for the treatment of bacterial pneumonia in goats and tilmicosin for the control and treatment of chronic respiratory disease in sheep. In addition, two Public Master files are currently under review at the FDA Center for Veterinary Medicine—CVM. These drugs and their use are: oxytetracycline for otolith marking of fish and ivermectin pour-on for hypodermosis in American bison. New studies have been initiated for the study of tilmicosin in veal calves and tylosin for American Foulbrood in honeybees.

In addition to the development of data for FDA review, the NRSP–7 program initiated a species grouping program designed to make the drug approval process more efficient for all minor species. Research on species grouping was continued that will enable game birds and fish to be evaluated on the basis of one or two marker species. With species grouping, safety and efficacy studies of a drug in one species could be extrapolated to other species within the same class. Considering that the aquatic and game bird classes contain at present ten and eight economically-significant production species, respectively, rates of Public Master File publications could be increased many-fold. The FDA/CVM and the U.S. Geological Survey are cooperating and supporting this program to the fullest extent, thereby demonstrating a prime example of Federal interagency collaboration in coordination with academic institutions, pharmaceutical industries, and commodity interests to effectively meet an urgent public health need. Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from appropriated funds in the amount of $240,000 per year for fiscal years 1982–1985; $229,000 per year for fiscal years 1986–1989; $226,000 for fiscal year 1990; $450,000 for fiscal year 1991; $464,000 per year for fiscal years 1992 and 1993; $611,000 for fiscal year 1994; $550,000 per year for fiscal years 1995–2000; and $548,790 in fiscal year 2001. A total of $7,939,790 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $156,099 state appropriations, $29,409 industry contributions and $11,365 miscellaneous in 1991; $265,523 state appropriations, $1,182 product sales, $10,805 industry contributions, and $59 miscellaneous in 1992; $212,004 state appropriations, $315 industry contributions and $103 miscellaneous in 1993; $157,690 state appropriations and $7,103 miscellaneous in 1994; $84,359 state appropriations in 1995; $191,835 non-Federal support in 1996; $357,099 non-Federal support in 1997; $104,596 state appropriations and $97,375 industry contributions in 1998; $317,225 state appropriations and $9,678 industry contributions, and $7,000 miscellaneous in 1999; and $349,250 state appropriations and $9,500 industry contributions in 2000.

Question. Where is this work being carried out?

Answer. The grants have been awarded to the four regional animal drug coordinators located at Cornell University, the University of Florida, the University of California-Davis, Iowa State University, and to the National Coordinator at Cornell University. The location of the regional coordinator for the north central region moved from Michigan State University to Iowa State University due to personnel changes. Research is conducted at these universities and through allocation of these funds for specific experiments at the State Agricultural Experiment Stations, the USDA-ARS, the U.S. Department of Interior, and in conjunction with several pharmaceutical companies.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. Selected categories of the Special Research Grants program address important national/regional research initiatives. The overall objectives established cooperatively with FDA and industry remain valid. However, specific objectives continually are met and revised to reflect the changing priorities for FDA, industry, and consumers. Research projects for this program have involved 20 different animal and aquaculture species with emphasis given in recent years to research on drugs for the expanding aquaculture industry and increasing number of requests from the sheep and game bird industries. The program involves research on biological systems that by their nature are ever changing and presenting new challenges and/or threats to agriculture. Especially with the new sensitivities about food safety and environment protection, there is a high priority for continuation of these ongoing projects.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency conducted a formal review of the Minor Use Animal Drug Program in 1997. An external review team of experts representing animal drug research and development, the veterinary profession, the pharmaceutical industry, and academia found the program to be very productive. Recommendations from the review included: (a) improve the visibility of the Minor Use Animal Drug Program; (b) improve working relationships with the veterinary and pharmaceutical communities; (c) and acquire additional support for the program by pharmaceutical companies, universities, and the Federal government to meet the identified national needs with emphasis on responsiveness to industry needs and food and environmental

safety. In 1999, stakeholders representing the sheep, aquaculture, goat, and game bird industries met with CSREES administration and NRSP–7 representatives to define research priorities for the Minor Use Animal Drug Program. Annually, grant proposals are scientifically peer reviewed, and twice a year the agency and program representatives meet with the FDA representatives to evaluate progress and to prioritize research requests. Workshops are held periodically to identify priorities for the program whereby producers, pharmaceutical companies, FDA, and researchers participate.

MOLLUSCAN SHELLFISH, OREGON

Question. Please provide a description of the research that has been funded under the Molluscan Shellfish, Oregon grant.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. The research under this program was initiated in fiscal year 1995. The overall goal of the program is to benefit the west coast shellfish industry through conservation, genetic improvement, and wise management of genetic resources for molluscan shellfish. A molluscan shellfish germplasm repository and selective breeding program have been established. The program has worked cooperatively with the west coast oyster industry, and improved selected lines of oysters have been provided to commercial producers.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The researchers indicate that there is a national need for a molluscan broodstock development program. This line of research will benefit the commercial shellfish industries on the west coast and nationally through the conservation of shellfish lines with desirable traits, studies involving genetic manipulation to increase disease resistance and enhance growth, and judicious husbandry practices utilizing molluscan shellfish resources.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of this research program were to establish a repository for molluscan shellfish germplasm, to establish breeding programs for commercial production of molluscan shellfish, and to establish a resource center for the industry researchers, and other interested parties in the U.S. and abroad. The oyster broodstock selection program has been implemented in partnership with industry and performance trials of selected stocks continue at commercial sites. Over 120 families have been evaluated at commercial sites in fiscal year 2000. Production and evaluation of top-performing selected families are conducted each year, with top-performing families selected to produce the next generation. Comparisons between inbreed and outbreed crosses are also underway.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1995 with an appropriation of $250,000; fiscal year 1996 was $300,000; $400,000 in each of fiscal years 1997 through 2000; and $399,120 in fiscal year 2001. A total of $2,549,120 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates a total of $135,454 of non-Federal funding in fiscal year 1995 primarily from state sources; in fiscal years 1996 though 2000 no formal cost sharing was reported. However, the university indicates that significant resources in terms of equipment, facilities, utilities, and personnel have been applied to this program. There is also significant in-kind contributions from the industry.

Question. Where is this work being carried out?

Answer. Research will be conducted at Oregon State University.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Specific research objectives outlined in the original proposal were completed in 1996. Researchers have broadened the scope of the project from the original objectives, and it is anticipated that these specific objectives will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's fiscal year 2000 review concluded that the researchers were well qualified and that the research addresses an important opportunity in the

aquaculture industry. The research team is well qualified and has the appropriate background. Commercialization of research findings has been accelerated because of the close cooperation with industry and field testing at commercial sites. Progress on previous work is well documented and the work complements other research being funded though the USDA on molluscan shellfish. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Council's—NSTC—Aquaculture Research and Development Strategic Plan.

MULTI-COMMODITY RESEARCH, OREGON

Question. Please provide a description of the research done under the Multi-commodity Research, Oregon program?

Answer. The Multi-commodity Marketing Research project helps to support the Food Innovation Center, a joint venture of Oregon State University and the Oregon Department of Agriculture for multi-disciplinary, multi-agency research and education. The project helps to keep Pacific Northwest agricultural businesses competitive by investigating and developing potential value-added market and product opportunities. The project analyzes domestic and international market potential and marketing strategies, conducts sensory analyses of consumers preferences, examines packaging and logistics problems, and performs strategic planning for the food industry. A major effort is directed at understanding Asian consumers and markets. The research proposal was peer reviewed at the university prior to submission to CSREES.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Oregon and other Pacific Northwest states produce a wide variety of agricultural commodities and products with export potential to Pacific Rim countries. Research and analysis are necessary to guide agricultural producers and processors in assessing markets, developing market strategies, and creating appropriate value-added products.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this research project is to gain better specific understanding of the technical, economic, and social relationships that define Oregon's value-added agricultural sector, and examine how these factors affect the economic performance of the sector. This project investigates and develops innovations in value-added agriculture to improve the economic performance of the agricultural and food manufacturing sectors in the Pacific Northwest.

Recent research results follow: A survey of food processors provided valuable data on processing costs and indicated increasing efficiency in the firms. A study of Chinese home infrastructure and refrigeration measured their impacts on demand for food imports from the U.S. China's soybean prices responded to changes in Chicago prices, but on a lagged basis. Asians living in the U.S. for a few years have very similar food preferences as people in their native lands, hence they provide a lower cost method of studying food consumption behavior in those cultures. Asians respond differently to hedonic scales than U.S. consumers; Asians never use the extreme "dislike" choices. A new pasteurization process has been developed and has a patent pending. A database of over 1,200 food processing firms allows the investigators to determine potential strategic gaps in the region's food processing industry and serves as a guide to future research and education programs.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The research began in fiscal year 1993. The appropriation for fiscal year 1993 was $300,000; fiscal year 1994, $282,000; fiscal years 1995 through 2000, $364,000 per year; and fiscal year 2001, $363,199. The total amount appropriated is $3,129,199.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funding for this grant was $177,574 in State appropriations in 1993, and $162,394 in 1994. The project involves the use of Oregon State University administrative personnel, equipment, utilities and facilities that are indirect costs to the project. These costs constitute an Oregon State University contribution to the project that is not allowable as a reimbursable expense. Because the Oregon state appropriations process penalizes the university for reporting nonreimbursed indirect costs, the university has not reported the amount of non-Federal funds appropriated for fiscal years 1995–2001.

Question. Where is the work being carried out?

Answer. The research is carried out at Oregon State University in Corvallis and at the Northwest Food Innovation Center in Portland, Oregon.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1993 was for a period of 12 months, however, the goal of enhancing Oregon's value-added agricultural sector is an ongoing regional and national concern. Progress on the original objectives is as follows: baseline data have been accumulated; an economic growth assessment model is being refined; global competitiveness is being assessed for value-added Pacific Northwest agricultural products; targets for performance are being worked out with agricultural industries; and trade teams have been involved in assessing the ability of U.S.-based industries to meet the demands for noodle production for Asian markets. The current phase of the program will be completed in 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in June 2000, as it evaluated the 2000 project proposal, and determined that: "The research is relevant and compatible with the USDA and CSREES missions, especially the profitability and competitiveness of the American agricultural sector. The stated objectives are scientifically valid and achievable, and the procedures specified for each objective are appropriate to the research tasks. The proposal was subjected to peer review by experts with the necessary scientific knowledge and technical expertise. The principal investigator and the associated researchers are competent to execute this project."

MULTI-CROPPING STRATEGIES FOR AQUACULTURE, HAWAII

Question. Please provide a description of the research funded under the Multi-cropping Strategies for Aquaculture Research grant in Hawaii.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. This research program focuses on the opportunities of alternative aquaculture production systems, including the ancient Hawaiian fish ponds on the island of Molokai. A community-based research identification process has been used to develop specific research needs and prioritize objectives in this program. Current research includes work in the area of water quality characterization to accelerate permitting of aquaculture systems. Field testing of alternative species and management systems in the ancient Hawaiian fish ponds is currently underway. The university indicates that the scope of the program will be refined in fiscal year 2001 proposal.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researchers indicate that the primary need for this research is to assist the native Hawaiians in improving the profitability and sustainability of the ancient Hawaiian fish ponds and other appropriate aquaculture systems as part of a total community development program on the island of Molokai.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this program was to develop technology for the co-production of shrimp and oysters in aquacultural production systems. Research led to the development of oyster production systems that have been field tested under commercial conditions. In fiscal year 1993, the university redirected this program to develop sustainable subsistence and commercial aquaculture systems on Molokai while maintaining the culture and physical environment unique to the island. Production methods have been developed for a number of species. Researchers have characterized water quality within and between fish ponds in order to establish criteria for permitting and management of the ancient Hawaiian fish ponds. Multi-dimensional field testing of restored fish ponds is underway to determine yield and management systems for native species and polyculture systems.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. This research was initiated in fiscal year 1987 and $152,000 per year was appropriated in fiscal years 1987 through 1989. The fiscal year 1990–1993 appropriations were $150,000 per year; $141,000 in fiscal year 1994; $127,000 in fiscal years 1995–2000, each year; and $126,721 in fiscal year 2001. A total of $2,085,721 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university reports a total of $137,286 of non-Federal funding for this program in fiscal years 1991–1994; $318,468 in fiscal years 1995–1996; $116,730 in fiscal year 1997; $197,000 in fiscal year 1998; and no non-Federal funds are available for this project for fiscal years 1999 and 2000. The university has provided direct technical and management support for this program.

Question. Where is this work being carried out?

Answer. Research is being conducted through the University of Hawaii on the island of Molokai.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The completion date for the original project was 1993. The original objectives were met. The specific research outlined in the current proposal will be completed in fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's Program Managers review this program on an annual basis. The agency's fiscal year 2000 evaluation indicated that adequate progress was reported on specific tasks and that the research was relevant and addresses an important opportunity for the aquaculture industry on Molokai. The objectives were clearly stated and the project was integrated into several other community based programs to support aquaculture development on Molaki.

NATIONAL BEEF CATTLE GENETIC EVALUATION CONSORTIUM, NEW YORK

Question. Please provide a description of the work that has been funded under National Beef Cattle Genetic Evaluation Consortium, New York grant.

Answer. This is a new project. CSREES has requested the university to submit a grant proposal which has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Beef is the most popular meat in the U.S. In 1997, 25.4 billion pounds of beef were produced with a total retail value of $50.6 billion. The production of high quality, healthy, and affordable beef begins by identifying the best breeding animals. Genetic superiority can be evaluated by estimating Expected Progeny Differences on prospective breeding animals. For selective breeding, Expected Progeny Differences have been the most important technology available to seedstock and commercial cattle producers. Analysis of beef records to calculate Expected Progeny Differences for the vast majority of seedstock cattle in the U.S. occurs at four universities: Colorado State University, Cornell University, University of Georgia, and Iowa State University. The success of this genetic evaluation program has been greatly influenced by the existence of an established delivery system to make this information readily available to all producers. Expected Progeny Differences are widely reported by breed associations through sire summary reports and artificial insemination companies that distribute semen of sires with superior Expected Progeny Differences. Application of this technology has resulted in significant genetic improvement trends for the economically-important traits. It is critically important to further develop, coordinate, and utilize this technology in order to further enhance the competitiveness of beef production, both domestically and globally.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a consortium involving the four universities that have been primarily responsible for the research and development of beef cattle genetic evaluation in the U.S. This project will develop and implement improved methodologies and technologies for genetic evaluation of beef cattle for the purpose of maximizing the impact genetic programs have on economic viability, international competitiveness, and sustainability of beef producers, and to provide consumers affordable and healthy beef products.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001. The appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided in fiscal year 2001 are approximately $300,000 by the four universities involved and $360,000 by the beef industry, primarily breed associations.

Question. Where is this work being carried out?

Answer. Research will be conducted at the four universities involved in this consortium: Colorado State University, Cornell University, University of Georgia, and Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date of the original objectives is fiscal year 2007.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project. The proposal will be peer-reviewed at the university prior to submission. A merit review will be conducted by the agency prior to funding.

NATIONAL BIOLOGICAL IMPACT ASSESSMENT PROGRAM, VIRGINIA

Question. Please provide a description of the work that has been funded under the National Biological Impact Assessment Program, Virginia grant.

Answer. The National Biological Impact Assessment Program—NBIAP—supports the environmentally-responsible use of biotechnology products to benefit agriculture and the environment. This project supports the Information Systems for Biotechnology which is a national resource in agricultural biotechnology information. This program serves the research community by providing information about biotechnology regulations, environmental issues associated with the release of genetically-modified organisms, risk assessment, and risk management through a web site. The web site also contains searchable databases, documents and resource lists, monthly newsletters, and original printed reference materials. Risk assessment workshops are conducted to promote science-based regulatory decisions.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This program serves as a unique and comprehensive source of biotechnology information. This online system provides scientists, nationally and internationally, with timely and important information about new research and regulatory and environmental developments in agricultural biotechnology. This was the first online system to address the rapidly increasing information needs of the agricultural biotechnology community, and it continues to be the most comprehensive and heavily used source of critically-needed information.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original and current goal of the program is to facilitate and assess the safe application of new techniques for the genetic modification of plants, animals, and microorganisms to benefit agriculture and the environment. Since its inception in 1989, the program has developed tools and resources to provide scientists, regulators, teachers, administrators, and the interested public with value-added, unbiased information in a readily accessible form. The computer-based system has developed into an internet site serving more that 6,600 requests per month coming from over 42 countries. The site includes documents pertaining to regulatory oversight biotechnology products, policy statements, and risk assessment and management. Searchable databases include records of all environmental releases of genetically-engineered organisms conducted under authority of the USDA, Institutional Biosafety Committees, State Regulatory contacts, biotechnology research centers, and companies. A monthly News Report, covering research, regulatory, legal, and international issues is distributed by request to 1,800 e-mail and 600 print subscribers. Biosafety training workshops have been conducted for scientists and state regulatory officials. Current activities include risk assessment workshops and publication of a guidebook for safely conducting research in greenhouses.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from appropriated funds as follows: fiscal year 1989, $125,000; fiscal year 1990, $123,000; fiscal years 1991–1993, $300,000 per year; fiscal year 1994, $282,000; fiscal years 1995–2001, $254,000 per year; and fiscal year 2001, $253,441. A total of $3,207,441 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Virginia Polytechnic Institute and State University—VPISU—contributes administrative and clerical support of approximately $5,000 per year.

Question. Where is this work being carried out?

Answer. The program is administered and the research conducted in the Biochemistry Department at VPISU. Former and current partners in the program include Pennsylvania State University, Louisiana State University, North Carolina Biotechnology Center, Michigan State University, Arizona State University, the USDA-National Agricultural Library, Institute for Biotechnology Information, and the University of Minnesota.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Ensuring the environmentally-responsible use of agricultural biotechnology products is an ongoing and important task. Opportunities for plant and animal improvement through biotechnology are expanding as more genes are identified and new methods are developed for introducing specific beneficial genes into plant and animal populations. As more genetically-modified plants and animals are commercialized, there will be a continuing, high priority need to provide current, science-based information to assure long term safety and efficacy of the use of genetically-modified organisms in agricultural production systems.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An external peer-review was conducted in April 2000. The panel concluded that this project is making a large, positive impact on the agricultural biotechnology community by providing objective, useful information in several easily accessible formats. The web site, News Report, workshop proceedings, and other reference material are well-designed, easy to use, and informative. The number of subscribers to the monthly News Report, number of hits on the web site, and number of workshop proceedings distributed collectively indicate a strong demand for the products of this program. A recent user survey clearly indicate that users appreciate the high quality, objectivity, and clear presentation of the information available. The panel strongly concluded the program should be continued, and, if possible, expanded to reach even more users. It was recommended that a mission statement be developed to help facilitate the continued success of the program.

NEMATODE RESISTANCE GENETIC ENGINEERING, NEW MEXICO

Question. Please provide a description of the work that has been funded under the Nematode Resistance Genetic Engineering, New Mexico grant.

Answer. This research is designed to investigate naturally-occurring compounds from diverse sources that may confer pesticidal resistance if introduced into agronomic plants. The main target pests are plant parasitic nematodes and also certain insects. The work is using molecular biological techniques to incorporate genes into agronomic plants which will shorten the timeframe to produce transgenic plants.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that the successful development of these techniques and subsequent transfer of genes with insecticidal and/or pesticidal activity into agronomic plants will provide an environmentally-sound system for all plants susceptible to pests. The principal researcher believes the project has the potential for both regional and national application.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to provide an alternative approach for the control of plant parasitic nematodes and certain insects through the use of molecular biological technologies to transfer pesticide resistance to plants. More recently, an insecticidal protease inhibitor gene has been used in transformed plants. A unique technique utilizing insect intestinal membrane vesicles was used as a tool for detection of specific protein binding domains. The resulting gene has been successful in managing Colorado potato beetles for four years in field trials with transformed potato.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 and the appropriations for fiscal years 1991–1993 were $150,000 per year; $141,000 in fiscal year 1994; $127,000 in fiscal years 1995–2000 each year; and $126,721 in fiscal year 2001. A total of $1,479,721 has been appropriated thus far.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $65,000 state appropriations in 1991; $62,000 in state appropriations in 1992;

$75,000 in state appropriations in 1994; and $75,000 state appropriations in 1995. For 1996, the university and the Plant Genetic Engineering Laboratory are providing matching contributions in faculty and staff salaries, facilities, equipment maintenance and replacement, and administrative support. In 1997, there were no matching non-Federal funds. In 1998 and 1999, state appropriated funds were $48,000 and $71,000, respectively. In 2000, the non-Federal funds were $70,000.

Question. Where is the work being carried out?

Answer. Research is being conducted at the New Mexico State University and at collaborating universities in the region.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives have not as yet been met. The estimated completion date for this project is in 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last evaluation of this project was a merit review conducted in January 2000. In summary, the overall goal of this project is to use molecular technology to develop pesticide capability in plants of agronomic importance. A plant transformation system was developed to improve the historically difficult transformation of monocots more efficiently. In field trails of transformed eggplants and potatoes, high levels of effectiveness against insects have been found. Other constructs are being used in many crops to determine resistance to nematodes and other crop pests.

NEVADA ARID RANGELANDS INITIATIVE

Question. Please provide a description of the research that has been funded under the Nevada Arid Rangelands Initiative grant.

Answer. The Nevada Arid Rangelands Initiative will provide coordination of Federal and State agencies to address the highest priority issues related to management of public lands in Nevada. The project will support a mix of research, education, and action programs to develop healthy multiple uses for rangeland, improve management education programs, improve economics at the ranch community and county level, and develop a decisionmaking module for public land use.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The research proposal is directed toward public land management in Nevada, but would have relevance to other states with large acreage of arid public lands.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to develop research management and educational programs to promote healthy, productive and sustainable use of Nevada rangeland.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $255,000 and for fiscal year 2001 is $299,340. The total appropriation is $554,340.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The estimate for non-Federal funds provided for this program from state funds was $237,000 for fiscal year 2000.

Question. Where is the work being carried out?

Answer. Research will be conducted at the University of Nevada Research Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project is under development, however anticipated completion for the original objectives should be five years.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer reviewed and subjected to the institutional project approval process. In addition it was reviewed by CSREES National Program Staff.

NEW CROP OPPORTUNITIES, ALASKA

Question. Please provide a description of the research that has been funded under the New Crop Opportunities, Alaska grant.

Answer. The overall goal of the "New Crop Opportunities" project is to investigate new opportunities in crops, value-added processing, and markets for Alaskan agricultural products, including forest products.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The profile of the agricultural industry is changing from a commodity-centered industry to one composed of diverse enterprises. There are a number of new crops in Alaska that show promise in consumer markets both inside and outside the state. New markets also appear feasible for crops that are in the experimental phase of production or can be wild harvested in Alaska. Value-added processing of agricultural crops in Alaska will contribute to the state's economic diversity.

Question. What was the original goal of this research and what has been the project to date?

Answer. The specific goal is to generate new knowledge that will benefit the agricultural industry and lead to new economic opportunities for entrepreneurs. The research is organized into three specific objectives: (1) new crops in promising consumer markets; (2) new markets for experimental field-cultivated and wild-harvested crops; and (3) value-added processing of agricultural crops. Research was begun in September 2000. Because of the short period of time in process, not all of the projects included have progress reports. Work continues on efficacy tests of Trichoderma atroviride in controlling diseases on ginseng. A golf green and research plots have been established at the Agricultural and Forestry Experiment Station in Fairbanks to continue the evaluation of turfgrass species, evaluation of fungicides for control of snowmold and other fungi, and develop best management practices for golf green maintenance in the subarctic. Research designs are complete for spring 2001 establishment of new plots and continued evaluation of existing plots for the evaluation of best management practices for forage legumes in interior Alaska. Field trials with salad greens for cut-salad and whole-fresh markets were evaluated in the fall of 2000 and variety selections have been made to continue the work in spring 2001. The horticultural component of the peony market study begins in the spring, and plans are being made for visits with appropriate marketers of the peony crop to European countries. A graduate student has begun the literature survey to accompany the work with cultivated lingonberry. A successful muskox industry workshop and trade show, including five of the six world producers of qiviut products, was held in November 2000 in conjunction with the Alaska Agricultural Symposium resulting in an organizing meeting for a new Association of Alternative Livestock Producers. A cost study has been completed on the potential for crushing oilseeds in Alaska and investigations of alternative markets for diverse oil products has begun.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $425,000. For fiscal year 2001, the appropriation was $494,909. A total of $919,909 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. There will be nine percent of the total grant amount received by the Agricultural and Forestry Experiment Station provided to the University of Alaska Fairbanks in fiscal years 2000 and 2001 for overhead recovery.

Question. Where is this work being carried out?

Answer. This work will be carried out by the School of Agriculture and Land Resources Management and the Agricultural and Forestry Experiment Station at its experimental farms in Fairbanks and Palmer, at various locations near Fairbanks, and at its remote research site in Delta Junction.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. The fiscal year 2000 projects are anticipated to be completed in three years from the start date. The objectives have not been met because the projects have just begun. There are no anticipated additional or related objectives that will be added to the existing projects.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is in accordance with the mission of the agency.

NEW CROP OPPORTUNITIES, KENTUCKY

Question. Please provide a description of the research that has been funded under the New Crop Opportunities, Kentucky grant.

Answer. Researchers at the University of Kentucky began work in 2000 on 13 projects. Research on horticultural crops has focused on: bacterial spot resistance, yields, and quality in bell and speciality peppers; blackberries for fresh and processing markets; identification of underutilized landscape plants and plants native to Kentucky that have landscape potential and development of production systems for these plants; greenhouse production of bedding plants, vegetables, flowering pot plants, and herbs using a controlled water table subirrigation system or a float system; and valuation of annual and perennial garden flowers. Research on agronomic crops has focused on: integrated pest management in corn; evaluation of high-value traits for corn in Kentucky; breeding soft white winter wheat for Kentucky; development of nitrogen fertilization strategies for the control of protein levels and quality in soft white winter wheat; testing of novel soybean varieties to provide reliable information grain yield and quality characteristics; development of packages of management practices for novel soybean varieties; breeding triple-null lipoxygenase soybean cultivars that should produce better-tasting soyfood products; analysis of the profit and risk potential of speciality grains; and determination of drying, storage, and germination characteristics of selected speciality grains.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This research addresses a regional need to find alternative crops to replace tobacco.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was to offer new opportunities for crop diversification, technology transfer, and demonstrations. Accomplishments to date include: establishment of a web site to provide information about research projects of the New Crop Opportunities Center and results, as available; links to decision aids available through the USDA to help farmers determine the economic feasibility of specific new crops for their enterprises; information about a variety of alternative crops that has resulted from past research at the University of Kentucky; notification of upcoming meetings of interest to Kentucky farmers; and development of an exhibit about the New Crop Opportunities Center and its research. This exhibit has been on display at Lexington, Louisville, Princeton, Horse Cave, Versailles, and Morehead in Kentucky, and at a conference in Evansville, Indiana. Printed materials about the New Crop Opportunities Center have been distributed to all of these locations, as well as to County Extension Agents across the state. The exhibit will also be on display at six meetings in January. On-farm demonstration sites have been established around the state for the blackberry, pepper, soybean, and wheat projects. Interest in demonstration plots has been high. For example, 39 counties asked to participate in the blackberry demonstrations. Annual and perennial garden flowers were evaluated at the University of Kentucky and demonstrated at four locations around the state in 2000. Results from the first year of the pepper, greenhouse production of lettuces, greens and herbs, and the annual and perennial garden flower evaluation projects have been posted on the Center's web site as have the results for a blackberry marketing study conducted in 2000. Wheat and soybean breeding research has been initiated, as have wheat fertilization, and landscape and native plants project.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2000?

Answer. The work supported by this grant began in fiscal year 2000; the appropriation for fiscal year 2000 was $595,000, and for fiscal year 2001 is $723,405. The total appropriation is $1,318,405.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds have been provided.

Question. Where is this work being carried out?

Answer. This work will be carried at the University of Kentucky, its research centers in eastern and western Kentucky, at arboreta and botanical gardens, and on cooperating farms across the state.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. The original objective of some of the research projects will be met by the end of fiscal year 2001. Other projects will require more time, and many will address additional or related objectives. These are expected to be completed by the end of fiscal year 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is in accordance with the mission of the agency.

NONFOOD AGRICULTURAL PRODUCTS PROGRAM, NEBRASKA

Question. Please provide a description of the research that has been funded under the Nonfood Agricultural Products Program, Nebraska grant.

Answer. This work focuses on the identification of specific market niches that can be filled by products produced from agricultural materials, developing the needed technology to produce the product, and working with the private sector to transfer the technology into commercial practice. Major areas of application include starch-based polymers, use of tallow as diesel fuel, improvements in ethanol production, use of vegetable oil as drip oil for irrigation wells, as a two cycle engine oil and as a chain saw bar oil, production of levulinic acid, the extraction of wax from grain sorghum, and production of microcrystalline cellulose from crop biomass. The Nebraska Dean and Director of Agricultural Research has initiated a review process that parallels the process used for Experiment Station projects. Two to three faculty members are asked to critically review the proposal using criteria as described by CSREES in the letter soliciting proposals for 2001.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes our ability to produce agricultural commodities exceeds our needs for food and feed. These commodities are environmentally-friendly feedstocks which can be used in the production of many biochemicals and biomaterials that have traditionally been produced from petroleum. The production of the commodities and the value-added processing of these commodities is regional in scope.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The objectives are to identify niche markets for industrial utilization of agricultural products; improve and develop conversion processes as needed for specific product isolation and utilization; provide technical, marketing, and business assistance to industries; and coordinate agricultural industrial materials research at the University of Nebraska, Lincoln. Accomplishments include commercialization of soybean-based drip oil for irrigation wells. Bruning Grain Co. Marketing is marketing approximately 12,000 gallons per year of "Soy Bio Drip." MCC Technologies, Inc. continues to develop a business plan for production of microcrystalline cellulose from crop residues such as corn cobs, wheat straw, and cellulose via a reactive extrusion process developed by the university's Industrial Agricultural Products Center. Various hardness grades of plastic particle media blast using a combination of commercially-available biodegradable polymers have been produced. A water resistant starch-based foam has been developed and a patent is pending. A commercialization strategy is being developed. Also, an alternative process for producing biodiesel has been developed and a patent is pending. A patent is pending on a sorghum-based road deicer that was developed and which is currently being produced for a trial test this winter. All of these commercialization projects are the result of research efforts, most of which have been supported by the Nonfood Agricultural Products Program. Two Small Business Innovation Research, Phase I, proposals have been funded for technologies developed at the Center. A Phase II proposal on levulinic acid is currently being prepared.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The funding levels for this project are $109,000 in 1990; $110,000 per year in fiscal years 1991–1993; $103,000 in fiscal year 1994; $93,000 in fiscal year 1995; $64,000 per year in fiscal years 1996–2000; and $63,859 in fiscal year 2001. A total of $1,018,859 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funding for this project is: in fiscal year 1992, $315,000; fiscal year 1993, $330,000; fiscal year 1994, $330,000; fiscal year 1995, $309,000; fiscal year 1996, $251,000; fiscal year 1997 $250,000; fiscal year 1998, $340,000; fiscal year 1999, $260,000; and fiscal year 2000, $250,000. These funds were from Nebraska Corn, Soybean, Wheat, Sorghum, and Beef Boards; World Wildlife Fund; Nebraska Bankers Association; United Soybean Board; National Corn Growers Association; Bioplastics, Inc.; Biofoam, Inc.; and MCC Technologies, Inc.

Question. Where is this work being carried out?

Answer. This work is being conducted at the Industrial Agricultural Products Center, L.W. Chase Hall, University of Nebraska, East Campus, Lincoln, Nebraska.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The objectives of the original projects have been completed. Specific objectives have been identified in each renewal request.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project is evaluated based on the annual progress report. The cognizant staff scientist has reviewed the project and determined that the research is conducted in accordance with the mission of this agency.

NURSERY, GREENHOUSE, AND TURF SPECIALITIES, ALABAMA

Question. Please provide a description of the research that has been funded under the Nursery, Greenhouse, and Turf Specialities, Alabama grant.

Answer. This is a new grant. The program objectives are: (1) evaluate woody landscape plants from a number of sources for those that are superior in the southeastern U.S. environment; (2) evaluate woody and herbaceous ornamentals for physiological adaptations including heat and drought tolerance; (3) evaluate a wide range of bedding plants and herbaceous perennials for landscape performance in major climatic regions of Alabama; and (4) evaluate performance and suitability of turfgrass genotypes for use in Alabama including biology and management of turfgrass pests and nutrient flux in turfgrass systems.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Nursery, greenhouse, and turf crops are of increasing importance in the state of Alabama and throughout the Nation. According to the 1998 Census of Agriculture, this segment of the agricultural economy grew at 18 percent per year during the period 1988 to 1998. This research will support the continued growth of this agricultural sector.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to identify landscape and ornamental plants that are particularly well-suited for the environment in Alabama and other areas of the southeastern U.S. By using plants that are so adapted, use of inputs such as fertilizers and pesticides can be reduced. This is a new grant, and the work has not yet begun.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated is $284,373.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. There is no non-Federal funding for this project.

Question. Where is this work being carried out?

Answer. The work is being carried out by the Alabama Agricultural Experiment Station, Auburn University.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. A peer review of the project will be undertaken by the performing institution, and CSREES will conduct a thorough evaluation of the proposal once it is received.

OIL RESOURCES FROM DESERT PLANTS, NEW MEXICO

Question. Please provide a description of the research that has been done under the Oil Resources from Desert Plants, New Mexico grant.

Answer. The Plant Genetic Engineering Laboratory at New Mexico State University has been exploring the potential for the production of high value industrial oils from agricultural products. The effort has been focused on transferring the unique oil producing capability of jojoba into oilseed rape and soybean. With the development of technology to both isolate the enzyme components of oil biosynthesis and successfully transform the target plants, significant advances have been made with jojoba. In addition, oil enzymes have been studied in castor, oilseed rape, desert primrose, cyanobacteria, and meadowfoam.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes desert plant sources of valuable oils for industrial applications are typically low yielding and limited in climatic areas for farm production. Genetic engineering offers an opportunity to move genetic capability to high yielding major crops. Many of the oils and their derivative acids, waxes, and others can directly substitute for imports of similar polymer materials, especially petroleum.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to transfer the unique oil-producing capability of jojoba and other native shrubs into higher yielding crops such as oilseed rape and soybean. This is a form of metabolic engineering, and it requires the transfer of coordinated groups of genes and enzymes into the host plant to catalyze the necessary biochemical reactions. Recent progress includes successful transformation of tobacco and alfalfa plants with oil metabolism genes from the meadowfoam plant and a cyanobacterium.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. This research began in fiscal year 1989 with a $100,000 grant under the Supplemental and Alternative Crops program. Grants have been awarded under the Special Research Grants program as follows: fiscal year 1990, $148,000; fiscal years 1991–1993, $200,000 per year; fiscal year 1994, $188,000; fiscal years 1995–1996, $169,000 each year; fiscal years 1997 through 2000, $175,000 per year; and fiscal year 2001, $174,615. A total of $2,248,615 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Matching funds from State and private sources used to help fund this project were $27,747 in fiscal year 1998 and $71,000 in fiscal year 1999. New Mexico State University and the Plant Genetic Engineering Laboratory also provide $90,000 for in-kind support per year including faculty salaries, graduate student stipends, facilities, equipment maintenance, and administrative support services.

Question. Where is this work being carried out?

Answer. The research is being conducted by the Plant Genetic Engineering Laboratory at New Mexico State University, Las Cruces, New Mexico.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. An estimate of the total time in Federal funds required to complete all phases of the project is 3–4 years. The application of this research for improved management of natural resources will evolve and expand as technology in the area advances.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Oil Resources from Desert Plants, New Mexico project was evaluated for scientific merit by a review panel convened by CSREES on April 17, 2000. The panel recommended approval of the project pending receipt of supplemental information on administrative aspects of the project. The supplemental information was received and the agency is satisfied that the program is being administered in compliance with the purpose of the grant. A merit review panel will be convened to reevaluate the project upon receipt of a proposal for fiscal year 2001.

ORGANIC WASTE UTILIZATION, NEW MEXICO

Question. Please provide a description of the research that has been funded under the Organic Waste Utilization, New Mexico grant.

Answer. Composted dairy waste is utilized as a pretreatment to land application. Composting dairy waste before land application may alleviate many of the potential problems associated with dairy waste use in agronomic production systems. Composting may also add value to the dairy waste as a potential landscape or potting medium. High temperatures maintained in the composting process may be sufficient for killing enteric pathogens and weed seeds in dairy waste. Noxious odors and water content may be reduced via composting. Composted dairy waste may be easier to apply, produce better seed beds, and not increase soil salinity as much as uncomposted dairy waste. Changes in the physical structure of the soil are being monitored for the effects of composted versus uncomposted amendments. This project undergoes annual peer review from academic institutions and experts from government and state agencies, and industrial partners.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the research will address the utilization of dairy waste combined with other high-carbon waste from agriculture and industry, including potash and paper waste, for composting. This approach to waste management will have high impact for states where dairy and agriculture are important industry sectors. This is especially true for New Mexico and the southwest U.S. where the dairy business is growing rapidly. This research will also provide an additional pollution prevention tool for the industrial sectors dealing with potash and paper waste. The principal investigator believes this research to be of local, regional, and national importance.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was and continues to be to determine the feasibility of simultaneously composting dairy waste from agriculture and industry. The research will determine effects of utilizing composted waste, as opposed to raw waste, as a soil amendment on plant growth, irrigation requirements, and nutrient and heavy metal uptake. Phase I, to determine the feasibility of simultaneous composting dairy waste with available high carbon wastes from agriculture and industry, has been completed. Phase II, to determine the appropriate ratios of waste to carbon substrate for successful composting is completed. Phase III, to determine the kinetics of nutrient release and effects of composted material on heavy metal uptake will be completed next year. The study of the second and third year application of the compost will be undertaken this year. This will identify the long term soil impact resulting from compost application.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1996 and the appropriation for fiscal year 1996 was $150,000; for fiscal years 1997 through 2000, $100,000 per year; and for fiscal year 2001, $99,780. A total of $649,780 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds for the duration of this grant from the state appropriation is $75,000. There is another $50,000 in-kind support from the industrial partners. Additionally, a sum of $15,000 from the New Mexico State Highway Department has been leveraged by this project.

Question. Where is this work being carried out?

Answer. This work is being carried out in New Mexico under the direction of the Waste-Management Education and Research Consortium in collaboration with The Composting Council and industrial partners, such as N-Viro in Ohio, Plains Electric, and McKinley Paper in New Mexico.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Completion date of the initial phases was March 2000. The project has been progressing according to the specified targets. Phases I and II have been completed. Phase III is ongoing and will be completed by early 2001. Phase IV was added to evaluate the multi-year compost application on parameters such as plant growth, soil water retention, and soil salinity. Phase V will develop appropriate projects for the application of compost by state agencies for land reclamation. Particular attention will be paid to the unique soil characteristics of the desert south-

west with higher background levels of salts and minerals. Application rates and maturity indicators will be developed in field trials that tailor these organic soil amendments to native vegetation, climate, and soil types. In addition, research will be undertaken on organic fertilizers developed from the runoff of composted waste. Field tests will be used to determine the effectiveness of these products. Phase V is projected to be completed by mid-2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project has been evaluated based on the semi-annual progress report and research findings presented at conferences. The cognizant staff scientist has reviewed the project and determined that this research is conducted in accordance with the mission of this agency.

PASTURE AND FORAGE RESEARCH, UTAH

Question. Please provide a description of the research that has been funded under the Pasture and Forage Research, Utah grant.

Answer. This is a multi-disciplinary effort to develop a forage livestock management system for improved profitability for Utah ranchers. The bulk of Utah's livestock production is based on forages. The primary tool for improving profitability of private grazing lands is through improved forage management. This research attempts to identify the physical and economical feasibility of utilizing intensively-rotated and irrigated pastures in the Intermountain West.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. This research proposed under this Special Research Grant will address the issues related to management of forage livestock production in Utah to improve profitability. The research will focus on Utah but have application in adjacent intermountain states.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this project is to develop a comprehensive guide for the management of irrigated pastures to assist livestock producers reduce cost and increase net returns.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997 and the appropriation for fiscal year 1997 was $200,000; for fiscal years 1998 and 2000, was $225,000 per year; and for fiscal year 2001, $249,450. A total of $1,124,450 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds in support of this project and related activities were $360,200 for 1997; $356,000 for 1998; $364,000 for 1999; and $325,000 for 2000.

Question. Where is this work being carried out?

Answer. Research will be conducted at the Utah Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal investigators anticipate the completion date for some objectives to be in 2002. Some issues will require additional time for resolution.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The grant is peer reviewed annually through the institutions project approval process as well as by the CSREES National Program Leader and the last on-site review took place in November 1999. The evaluation summary noted that the program, as implemented at the farm level, has already produced significant results in addressing problems of forage/livestock operations in Utah and the surrounding area.

PEACH TREE SHORT LIFE IN SOUTH CAROLINA, SOUTH CAROLINA

Question. Please provide a description of the research that has been funded under the Peach Tree Short Life in South Carolina grant.

Answer. Progress continued in 2000 with focus on the evaluation and longevity and productivity of Guardian rootstocks on peach tree short life sites in the southeast and replant sites throughout North America. More fundamental work has involved the biochemical characterization of the egg-kill factor produced by a bacteria on nematode eggs. Other basic studies involved the cloning of genes associated with

production and expression of toxins from bacteria. New studies were initiated on the use of solarization to reduce nematode populations for peach tree replant.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the principal researcher the problem of disease on peach, nectarine, and plum trees in the southeastern U.S. is very great. More than 70 percent of peach acreage in the southeast is affected. Research continued on the improvement of rootstocks and the use of the cultivar Guardian BY520–9, which has now been released in 22 states including California, New Jersey, and Michigan where bacterial canker is a problem.

Question. What was the original goal of this research and what has been accomplished to date.

Answer. The goal of this research was the continued evaluation of productivity of peach using Guardian BY520–9 rootstocks in the presence of peach tree short life and investigations into novel management for ring nematodes by bacteria. Recent accomplishments include the increase in bulk commercial production of Guardian seed while two new Guardian selections have had very good nursery trails. Guardian rootstock continues to be tested in 22 states and is performing well. A marker for a gene for rootstock resistance to two root-knot nematode species was sequenced and successfully used to correctly sort current commercial rootstocks according to their known nematode resistance or susceptibility. A major find is that the egg-kill factor produced by the bacteria kills root-knot nematode eggs as well as ring nematode eggs.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1981, $100,000; fiscal years 1982 to 1985, $192,000 per year; fiscal years 1986 to 1988, $183,000 per year; fiscal year 1989, $192,000; fiscal year 1990, $190,000; fiscal years 1991 to 1993, $192,00 per year; fiscal year 1994, $180,000; fiscal years 1995 to 2000, $162,000 per year; and fiscal year 2001, $178,606. A total of $3,705,606 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources for this grant were as follows: $149,281 state appropriations in 1991; $153,276 state appropriations in 1992; $149,918 state appropriations in 1993; $211,090 state appropriations in 1994; $193,976 in state appropriations in 1995; $169,806 in state appropriations in 1996 and 1997; $150,693 in state appropriations in 1998; $92,099 in 1999; and $92,099 in state appropriations in 2000.

Question. Where is this work being carried out?

Answer. This research is being conducted at the South Carolina Agricultural Experiment Station.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The researchers anticipate that the work may be completed in fiscal year 2001. Adequate progress has been made to assure that the objectives will be met before the completion date.

Question. What was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last agency evaluation of this project was a merit review completed January 2000. In summary, the evaluation of peach rootstocks with resistance to peach tree short life is of continued importance in managing this disease. The use of biological control strategies in suppression of plant parasitic nematodes are a complementary area of research in that it can enhance disease management by protecting the peach rootstocks. Solarization of orchard sites prior to peach tree replanting significantly altered the microbial community and suppressed nematode multiplication in the rhizosphere. Some accomplishments were the increased production and release of commercial Guardian seed and continued evaluation of rootstock in 22 states and provinces. A molecular techniques that separates resistant and susceptible peach rootstocks was validated.

PEANUT ALLERGY REDUCTION, ALABAMA

Question. Please provide a description of the research that has been funded under the Peanut Allergy Reduction, Alabama grant.

Answer. The industry, in conjunction with Alabama A&M University, the University of Florida, and the University of Georgia are trying to develop a response to

the peanut allergy problem and have determined that research is needed in the following areas: (1) the possibility of reducing the allergenic potential of peanuts through bioengineering and traditional breeding targeted at modifying the peanut proteins responsible for causing allergic reactions; (2) development of vaccines and other means to desensitize people with peanut allergies; and (3) development of better marketing, handling, and processing methods to reduce allergy risks.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Peanut allergies present a major problem for the growth of the peanut industry nationally, regionally, and locally. In addition, food and peanut allergy is becoming a major public health issue of national importance and a high priority research area.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of this research are to (1) Screen divergent peanut germplasm including cultivated and wild Arachis species for levels of Ara h1, Ara h2, and Ara h3 peanut allergens to determine the potential of breeding for reduced allergenicity; (2) Genomic cloning and characterization of Ara h1, Ara h2, and Ara h3 peanut allergen genes including the determination of gene family size and composition; (3) Characterization of Ara h1, Ara h2, and Ara h3 gene expression; (4) Determine the potential for differential gene silencing of multi-gene family members; and (5) Down-regulate allergen genes using anti-sense transformation. The award notification was received in September 2000. Personnel is being hired and preliminary experiments conducted.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in September of fiscal year 2000. The appropriation for fiscal year 2000 was $425,000 and $498,900 has been allocated for fiscal year 2001. The total appropriation is $923,900.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. No non-Federal funds have been provided.

Question. Where is this work being carried out?

Answer. The research is carried out at Alabama A&M University in collaboration with the University of Florida and the University of Georgia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The anticipated completion date of the specific objectives outlined above is fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project with the award made in September 2000. Therefore, no agency evaluation has been conducted. An internal review of the proposed project was conducted prior to awarding the grant in September 2000. The first agency evaluation is anticipated in 2001.

PEST CONTROL ALTERNATIVES, SOUTH CAROLINA

Question. Please provide a description of the research that has been funded under the Pest Control Alternatives, South Carolina grant.

Answer. This grant supports research and technology transfer to provide growers with alternatives for managing pests and to implement the use of new alternatives reducing the sole reliance on chemical pesticides.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The investigators contributing to the research and technology transfer at South Carolina believe that need for the development of alternatives for managing pests on vegetables is a regional and national problem. Contributions from the South Carolina work are projected to impact vegetable production in the southern region and consumers of vegetable production from the southern region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this program is to investigate alternative methods of managing insects, plant diseases, and nematodes in vegetable crops as complements to or as substitutes for conventional chemical sprays. The role of indigenous predators, parasites, and pathogens in controlling insect pests are being evaluated. The diamondback moth is the most serious pest of brassica crops such as cabbage, broccoli,

cauliflower, and collards, and control of this pest alone costs growers millions of dollars per year. Integrated Pest Management approaches developed under this project conserve the indigenous biological control agents of the diamondback moth, especially the parasite, Diadegma, in a system that utilizes the microbial agent Bacillus thuringiensis, along with precise, yet time efficient, field scouting in collards in South Carolina. Other microbial agents, some from sources outside the U.S., are being tested to identify those that are most virulent against insect pests here in the U.S. Results from other work on cultural techniques that suppresses insects and diseases are being incorporated into grower recommendations. A system of forecasting melon diseases avoids over spraying the crop, saves money for growers, and lessens environmental impact by chemical pesticides. This is complimented by development of melon varieties that have natural resistance to plant diseases.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This work supported by this grant began in fiscal year 1992 and the appropriation for fiscal years 1992 and 1993 was $125,000 per year. In fiscal year 1994 the appropriation was $118,000; in fiscal years 1995 through 2000, $106,000 per year; and in fiscal year 2001 is $116,743. A total of $1,120,743 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. South Carolina has provided approximately $182,000 in personnel support and operating dollars per year from state appropriations, agricultural chemical industry, and other non-Federal grants-in-aid based on the principal investigator's estimate.

Question. Where is the work being carried out?

Answer. This research and technology transfer program is being conducted at the South Carolina Agricultural Experiment Station, Clemson University at Clemson, Florence, and Charleston, South Carolina.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives of the project were for five-years. The project was revised in 1998 and continues.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Staff at CSREES evaluate this project annually from the annual project report which is submitted with the proposal for the next year of funding.

PEST MANAGEMENT ALTERNATIVES

Question. Please provide a description of the research that has been funded under the Pest Management Alternatives special grant.

Answer. This special research grant supports projects that help farmers respond to the environmental and regulatory issues confronting agriculture. These special grant funds support research that provides farmers with replacement technologies for pesticides that are under consideration for regulatory action by the Environmental Protection Agency—EPA—and for which producers do not have effective alternatives. The passage of the Food Quality Protection Act—FQPA—of 1996 makes this special research grant of critical importance to the Nation's farmers. Through these grants, new pest management tools are being developed to address critical pest problems identified by farmers and others. Where effective alternative tactics have been developed, they are widely and rapidly implemented by farmers. The call for proposals for these special research grant funds is published in the National Register and funds are distributed through a national open and competitive grants program directed by CSREES. Research priorities are identified annually by stakeholders, commodity groups, government, and private scientists, and others interested parties.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research.

Answer. Insect, weed, and disease pests always present a risk to agricultural production of food and fiber. For the Nation's agricultural production system to keep pace with the domestic and global demand for food and fiber it must have access to safe, profitable, and reliable pest management alternatives. For a variety of reasons, fewer pesticides are available today than just a few years ago. The FQPA is a major factor in reducing the number of pest management alternatives for U.S. producers. This grant provides new pest management tools and pest management

information, with the intent of helping farmers remain competitive in today's global marketplace.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This research is conducted to help farmers respond to the environmental and regulatory issues confronting agriculture by providing them with new options for managing pests. The research supported by this special grant identifies new ways and products to manage pests during this time of great change. A few examples of successful outcomes from previous grants in this program include: ways to reduce organophosphates use in apple production; modified cropping systems that replace herbicide use in pumpkins and squash; surface amendments that reduce aerial pesticide pollutants; development of pest and natural enemy thresholds to improve pest scouting on wheat; models to improve pesticide use efficiencies in minor fruit crops; improved insecticide and herbicide spray technology; new selective insecticides to control broccoli insects; and use of non-traditional oil sprays to control mites on apples.

Question. How long has this work been underway and how much as been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal years 1996 through 2000, $1,623,000 each year, and fiscal year 2001, $1,619,429. A total of $9,734,429 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds are provided to this grants program.

Question. Where is the work being carried out?

Answer. All state agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals are eligible to compete for this funding. This research is currently being carried out by State Agricultural Experiment Stations and other research organizations located in 23 States.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The economic and environmental pressures facing U.S. agriculture today surpass those of 1996 when Federal funds were first appropriated for this special research grant. There will be a need for continued investment in research to develop new approaches to managing pests for the foreseeable future as the FQPA is implemented.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Each new Call for Proposals and all submitted project proposals are evaluated annually by a multi-disciplinary panel for both relevancy and scientific merit. A jointly sponsored USDA and EPA workshop to evaluate the progress and scope of this program was held in Arlington, Virginia on May 11, 1999. The conclusions were that the program was on course and making good progress and could do more with additional funding. The projects supported by this special research grant have consistently provided key knowledge needed in developing new approaches to pest management. The focus on pesticides targeted by FQPA assures that critical pest management alternatives are being addressed. This grants program has supported 93 projects in 29 states since it started five years ago.

PHYTOPHTHORA ROOT ROT, NEW MEXICO

Question. Please provide a description of the work that has been funded by the Phytophthora Root Rot, New Mexico grant.

Answer. Research supported by this grant has concentrated on developing breeding strategies for developing durable resistant cultivars. As part of this work, a genetic population is being developed that will be used for molecular analysis of resistance.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. This project aims to halt the spread of Phytophthora root rot and foliar blight before chile production in the U.S. is sharply inhibited. Through the combination of Phytophthora root rot and foliar blight resistant cultivars and proper cultural practices, southwestern chile growers will be ensured a sustainable and profitable future and a leading place in the world market. Phytophthora is one of the major diseases of chile and has limited production in all states growing chiles.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The original goal has been to reduce loss of chile production to the Phytophthora syndrome of diseases. Since beginning this research, the project has discovered that there are at least three different disease syndromes caused by the pathogen. In addition, resistance in the host to Phytophthora is multi-genic for each syndrome. Furthermore, cultural practices have been found that lessen the severity of the disease under commercial production conditions.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991 with an appropriation of $125,000 for that year. Fiscal years 1992 and 1993 appropriations were $150,000 per year; $141,000 in fiscal year 1994; $127,000 per year in fiscal years 1995 through 2000; and $137,696 in fiscal year 2001. A total of $1,465,696 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds from state appropriations and the California Pepper Commission were $255,614 in 1997; $253,614 in 1998; $250,000 from state appropriations and $61,000 from the New Mexico Chile Commission in 2000; and a state appropriation of $280,000 in 2001.

Question. Where is this work being carried out?

Answer. The research is being carried out at New Mexico State University in the Department of Agronomy and Horticulture. Greenhouse and field facilities are being utilized at the Fabian Garcia Science Center and at the Leyendecker Plant Science Research Center.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the research objectives is 2005. Additional special funding is sought for 2001 to continue New Mexico State University's Agriculture Experiment Station research efforts to control soil borne diseases in irrigated agriculture. The Federal funds provided in fiscal year 2000 helped accelerate research results.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Peer review is not required for renewal proposals provided that the project has not changed significantly, other scientific discoveries have not affected the project, or the need for the project has not changed. However, the CSREES Special Grant—Prevention of Soilborne Diseases in Irrigated Agriculture—has undergone scientific peer review. This project has been evaluated for technical quality and relevance to regional goals by researchers with the scientific knowledge and technical skills to conduct the proposed research work. They have read and made comments that were incorporated into the proposal.

PIERCE'S DISEASE, CALIFORNIA

Question. Please provide a description of the research that has been funded under the Pierce's Disease, California grant.

Answer. This is a new grant. CSREES has requested the University of California to submit a grant proposal defining a competitive process that will identify the best research, education, and extension programs to address this problem.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Pierce's Disease is a devastating disease of grapes that severely limits production wherever it occurs. It is vectored by the glassy-winged sharpshooter, which has recently expanded its range into California vineyards in the southern half of the state. California is the lead state in production of grapes for all uses, which include wine, fresh table, and raisins, with a total crop value approaching $40 billion. Control of this important disease and management of its vector are essential to the continued viability of this vital agricultural industry.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new grant and the proposal for funding is presently being developed. The primary goals of the proposal will be to slow the spread of the glassy-winged sharpshooter and to discover a method of controlling Pierce's Disease.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. The work supported by this grant is being initiated in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $1,895,820.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. The total non-Federal contribution to this project for fiscal year 2001 is $1,250,000. The State of California has designated $750,000 for control of Pierce's Disease. In addition, the Town of Temecula in conjunction with Riverside County, both in California, have designated $250,000 toward this project in fiscal year 2001. The viticulture industry in California has contributed $250,000 toward this project in fiscal year 2001.

Question. Where is this work being carried out?

Answer. The work is being carried out by the California Agricultural Experiment Station. Funds will be awarded competitively to scientists from around the country involved in research on Pierce's Disease.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. Each proposal submitted to the project will undergo a peer review. CSREES will review annually the request for proposals developed for this program.

PLANT, DROUGHT, AND DISEASE RESISTANCE GENE CATALOGING, NEW MEXICO

Question. Please provide a description of the work that has been funded by the Plant, Drought, and Disease Resistance Gene Cataloging, New Mexico grant.

Answer. The specific objectives of this project are to construct, curate, and distribute cDNA libraries for genes that are differentially expressed in response to drought or disease. The DNA sequence and the pattern of expression of these genes will be determined, and this information will be made publicly available in databases. The specific plants under investigation include representatives from the major crop plant families: legumes, grasses, and the Solanacea.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Water deficit stress is the most severe and ubiquitous stress plants face. As urban and agricultural needs for water continue to compete, it is of national importance to understand which genes control drought resistance. This problem is especially pronounced in the arid southwest of the U.S.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The original goal of this project was to develop the facilities to perform plant genomic research at the New Mexico State University in collaboration with other institutions in the state, Los Alamos National Laboratory, and the National Center for Genome Resources. The project was intended to develop plant functional genomics in the thematic area of biotic and abiotic stress responses. To date, cDNA libraries of drought responsive genes have been constructed from five different samples and one library of disease responsive genes. Scientists are now beginning to use microarray approaches to characterize gene expression profiles. DNA sequence information has been generated for several hundred genes from these libraries.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998 and has been supported with appropriations of the following amounts: fiscal years 1998 and 1999, $150,000 per year; fiscal year 2000, $212,500; and fiscal year 2001, $249,450. A total of $761,950 has been appropriated since fiscal year 1998.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. New Mexico Agricultural Experiment Station is providing six percent of co-Principal Investigators' salaries, at a cost of approximately $9,000.

Question. Where is this work being carried out?

Answer. This work is conducted primarily on the main campus of New Mexico State University in Las Cruces, New Mexico. Some collaborative work is conducted with scientists at Los Alamos National Laboratory in Los Alamos, New Mexico, and with scientists at the National Center for Genome Resources in Santa Fe, New Mexico. A researcher from the Los Alamos National Laboratory, is collaborating on the

microarray technology, and a researcher from the National Center for Genome Resources is collaborating on the gene expression database technology.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Principal Investigators developed a detailed project outline for a five-year project, from 1998 through 2003, with specific yearly goals and objectives. Each year a detailed progress report is provided specifically addressing the bulleted yearly goals and objectives. The project is on schedule. The anticipated completion date for the project is May 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last agency evaluation of this project was a merit review in March 2000. This evaluation noted that the faculty at New Mexico State University have been conducting research on genes involved in disease and drought resistance on a wide range of crops and have recently developed expertise and collaborative efforts in bioinformatics. It was further noted that this project addresses high priority objectives in plant genetics that are directed to economically-important crops and approval of funding was highly recommended.

POTATO RESEARCH

Question. Please provide a description of the research that has been funded under the Potato Research grant.

Answer. Scientists at several of the State Agricultural Experiment Stations are breeding new potato varieties, high yielding, disease, and insect resistant potato cultivars, adapted to the growing conditions in their particular areas, both for the fresh market and processing. Research is being conducted in such areas as protoplast regeneration, somoclonal variation, storage, propagation, germplasm preservation, and cultural practices. Congressional language for fiscal years 1997 through 2001 has directed CSREES to award these funds on a competitive basis. In each of the years, CSREES published a request for proposals in the Federal Register and awarded grants competitively based on a scientific peer review.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This research effort addresses needs of the potato producers and processors throughout the U.S.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was to improve potato production through genetics and cultural practices as well as improve storage for quality potatoes for processing and fresh market. This research has resulted in a number of new high yielding, good quality, disease, and insect resistant cultivars, which are now being used in the processing industry and in the fresh market. CSREES has been successful using a farmer review panel and a scientific peer panel in directing more regional comprehensive breeding programs that have resulted in potato varieties targeted to the specific growing conditions of that region. A number of the new cultivars have also been adaptable to other regions. These programs have also had success in identifying resistance to pests and pathogens in wild germplasm and are developing expertise to incorporate genetic engineering approaches as traditional components of the program.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1983, $200,000; fiscal year 1984, $400,000; fiscal year 1985, $600,000; fiscal years 1986–1987, $761,000 per year; fiscal year 1988, $997,000; fiscal year 1989, $1,177,000; fiscal year 1990, $1,310,000; fiscal year 1991, $1,371,000; fiscal years 1992 and 1993, $1,435,000 per year; fiscal year 1994, $1,349,000; fiscal years 1995 through 1998, $1,214,000; fiscal years 1999 and 2000, $1,300,000 per year; and fiscal year 2001, $1,446,810. A total of $20,698,810 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $401,424 state appropriations, $4,897 product sales, $249,830 industry, and $30,092 miscellaneous in 1991; $567,626 state appropriations, $6,182 product sales, $334,478 industry, and $44,323 miscellaneous in 1992; $556,291 state appropriations, $9,341 product sales, $409,541 industry, and $44,859 miscellaneous in 1993; $696,079 state appropriations, $21,467 product sales, $321,214 industry, and

$226,363 miscellaneous in 1994; $935,702 state appropriations, $35,376 product sales, $494,891 industry, and $230,080 miscellaneous in 1995; and an estimated $900,000 state appropriations, $10,000 product sales, $400,000 industry, and $200,000 miscellaneous in each of the years 1996 through 2000. A total of $13,170,056 in non-Federal funds have been provided from fiscal year 1991 through 2000.

Question. Where is this work being carried out?

Answer. The research work is being carried out at the New York, Idaho, Maine, Michigan, North Dakota, Oregon, Pennsylvania, Virginia, Washington, North Carolina, New Jersey, Wisconsin, and Colorado State Agricultural Experiment Stations. The grant to Colorado is divided by Colorado with the California and Texas Agricultural Experiment Stations.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initiated to accomplish significant results in about five years, but because genetic varietal development takes from 5 to 10 years, we anticipate significant progress by 2006.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Beginning in fiscal year 1997, these funds have been awarded on a competitive basis using a scientific peer review. In addition, CSREES conducts a formal meeting with representatives from the potato industry to review research needs and provide input to the agency on the merits of the proposals.

PRECISION AGRICULTURE, KENTUCKY

Question. Please provide a description of the research that has been funded under the Precision Agriculture, Kentucky grant.

Answer. Research will evaluate site-specific practices for production of corn and soybeans under field conditions. The work will compare various combinations of management practices, using site-specific technology, and evaluate economics of its application.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need for this research is to provide objective information about precision agriculture technologies to assist farmers in the development of management systems that are productive, economical, and environmentally benign.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to evaluate site-specified technologies and develop recommendations related to variation in fertility, erosion potential, drainage, and soil physical condition. The ultimate goal is to demonstrate the potantial economic and envrionmental benefits from precision practices.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999 and the appropriation for fiscal year 1999 was $500,000 in fiscal year 2000, $850,000; and in fiscal year 2001, $748,350 total of 2,098,350.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The estimate for non-Federal funds supporting this project, largely from state appropriations, was $425,000 in fiscal year 1999 and $787,000 in field year 2000.

Question. Where is this work being carried out?

Answer. This research will be conducted at the Kentucky Agriculture Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for this project is 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project will be evaluated upon receipt of the required grant proposal.

PRE-HARVEST FOOD SAFETY, KANSAS

Question. Please provide a description of the research that has been conducted under the Pre-Harvest Food Safety, Kansas grant.

Answer. Longitudinal studies on the fecal shedding of Escherichia coli 0157:H7—E. coli 0157:H7—by cattle on beef cow-calf ranches are being done to determine the impact of various routine management practices on the shedding rate. The purpose of the research is to develop an understanding of the management factors that contribute to the incidence of E. coli 0157:H7 in beef cattle. During the past two years, the project has been enlarged to include more monitoring of environmental and wildlife samples to determine reservoirs for E. coli 0157:H7.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. The presence of E. coli in beef animals sent to slaughter can contribute to the contamination of meat products produced from such animals. This has increased the need for control measures that could reduce the incidence of such foodborne human pathogens in food animals during the production cycle. With the implementation of mandatory Hazard Analysis Critical Control Point—HACCP—programs for E. coli 0157:H7 in slaughter plants, there is increased pressure for the livestock producer to deliver animals to slaughter with reduced prevalence of E. coli 0157:H7. This type of research has been identified as critical by all food animal commodity groups as well as public health officials and consumers. An additional problem has now emerged as we learn more about the ecology of the E. coli 0157:H7 organism, namely, the ubiquitous nature of this bacterium in the general environment, including water sources as well as various species of wildlife.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was to determine the incidence of E. coli 0157:H7 in large versus small beef cow-calf operations and describe the management factors that contribute to or affect the rate of shedding of organisms in the feces of such animals. E. coli 0157:H7 has been detected in 3.11 percent of monthly fecal samples—n=3152—with 4.57 percent of the 2,058 animals having at least one positive sample. Fecal shedding was normally transient; only one animal was positive on more than one sampling date. In addition, there was a difference in prevalence between farms. Sources of drinking water were also examined and 3.5 percent of 199 water samples were positive. Of particular interest was that 8.3 percent of 24 creek/stream samples and 2.9 percent of 103 pond samples were positive. In addition, isolates of E. coli 0157:H7 have been obtained from wildlife, especially deer. Management practices on the ten farms are being examined to determine if there are specific risk factors that can be identified. As the work has progressed, however, the significance of the rather widespread presence of E. coli 0157:H7 in the general environment has resulted in added objectives to this important study.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1996. The appropriations for fiscal years 1996 through 2000 were $212,000 per year, and for fiscal year 2001 is $211,534. A total of $1,271,534 has been appropriated.

Question. What is the source and amount of non-Federal funds by fiscal year?

Answer. Non-Federal funds have been contributed to this project as follows: In fiscal year 1996 non-Federal funds were $150,000 in state appropriations and $91,450 in contributed indirect costs; 1997 non-Federal funds were $165,000 in state appropriated funds and $90,300 in contributed indirect costs; 1998 non-Federal funds were $175,000 in state funds and $91,500 in contributed indirect costs; 1999 non-Federal funds were $109,957 in state funds and $90,800 in contributed indirect costs; 2000 non-Federal funds were $125,193 in state funds and an additional $91,300 in contributed indirect costs.

Question. Where is this work being performed?

Answer. This research is being conducted at Kansas State University, University of Nebraska-Lincoln, and at ranches in Kansas, Nebraska, and Colorado.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date was October 1, 1998 for the original objectives. However, the project was not initiated until several months after the expected start date of October 1, 1995 and the original objectives were completed in late spring of 1999. As the project has progressed, the Principal Investigator has added other important questions to the original research plan and has planned to look more closely at management interventions that could help reduce the incidence of E. coli shedding in beef cattle. During the past two years, the project has added objectives which are focused on environmental issues such as prevalence of E. coli 0157:H7 in wildlife as well as in various water supplies used by the cattle. Thus the project is expected to continue for some time after the original expected termi-

nation date. The research team has been very productive and has completed the original goals of the project but has taken the initiative to look further at the environmental issues.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was evaluated by an on-site visit on October 28–29, 1997 by the CSREES National Program Leader. The project team was doing an excellent job, and the interactive collaboration was outstanding. The research team has also been successful in bringing other participants into the program. Also, the project leader provided a very comprehensive written report on December 4, 2000, which summarizes the current status of the research project. Several scientific papers have been given at scientific meetings. Three peer reviewed manuscripts have been published and two more are currently in the review process. Manuscripts are being published as rapidly as data are assembled, analyzed, and prepared for publication.

PRESERVATION AND PROCESSING RESEARCH, OKLAHOMA

Question. Please provide a description of the research that has been funded under the Preservation and Processing Research, Oklahoma grant.

Answer. Research has focused on the effects of preharvest and postharvest factors on the market quality of fresh and minimally-processed horticultural products, including pecans, watermelons, spinach, and various herb, spice, and colorant crops for further processing as nutraceuticals. Researchers have developed harvester prototypes for maximizing active component yield from marigold flowers and from sage, for incorporation with drying and threshing systems to accommodate further processing. Research focuses on integration of production, harvesting and postharvest handling systems for fresh market, and processing market horticultural products. Research continues on methods to determine textural properties of pecans, and is being extended for development of improved pecan grading and sorting systems. Precision farming operations using remote optical sensing technology to optimize chemical inputs and improve profitability for Oklahoma spinach production are being developed and implemented.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Technological improvements in fruit, nut, and vegetable handling systems are needed to supply domestic markets and support continued participation in international commerce. Processing systems under development for commercial adaptation will support market expansion of pecans and various nutraceutical crops, affecting product market potential and value regionally. Improvements in combined production, postharvest handling, and processing systems are necessary to support growth of the state and national horticulture and related agriculture industries and ensure competitive involvement in national and international commerce of horticultural commodities uniquely suited for production in Oklahoma. New extraction facilities will continue to have a positive impact on local economies, incorporating a new-value added processing industry, providing local employment opportunities, and a new local market for Oklahoma produced commodities.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research has been to define the major limitations for maintaining quality of harvested fruits, vegetables, tree nuts and nutraceutical crops, and prescribe appropriate harvesting, handling, and processing protocols to extend shelf life and enhance marketability of harvested horticultural commodities. Technologies and procedures previously developed for cucurbit, tree fruit, sweet corn, and okra systems are being applied to development of pepper, sage, spinach, and marigold cropping, handling, and light processing systems, with a targeted completion date of 2003. Research from this project provided the basis for commercial high relative humidity storage of peaches and is focusing on implementation of systems for maintenance of high active ingredients in nutraceutical crops to complement and extend efforts towards economical value-added extraction of foods.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1985, $100,000; fiscal year 1986, $142,000; fiscal year 1987, $242,000; fiscal years 1988 and 1989, $267,000 per year; fiscal year 1990, $264,000; fiscal year 1991, $265,000; fiscal year 1992, $282,000; fiscal year 1993, $267,000; fiscal year 1994, $251,000; fiscal years 1995–2000, $226,000 each year; and fiscal year 2001, $225,503. A total of $3,928,503 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. State funds have been provided as follows: fiscal year 1991, $126,900; fiscal year 1992, $209,783; fiscal year 1993, $219,243; fiscal year 1994, $308,421; fiscal year 1995, $229,489; fiscal year 1996, $366,570; fiscal year 1997, $397,881; fiscal year 1998, $205,662; fiscal year 1999, $206,334; and fiscal year 2000, $193,126. The state also invested $16.1 million for development of an Agricultural Products and Food Processing Center and approximately $2.0 million annually to staff and operate the facility.

Question. Where is the work being carried out?

Answer. This work is being conducted at the Oklahoma State Agricultural Experiment Station, in conjunction with ongoing production research at the Wes Watkins Agricultural Research and Extension Center and the South Central Agricultural Research Laboratories.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. It is expected that ongoing research will be completed in 2004. Additional related objectives beyond this date would address further opportunities for horticulture industry growth, innovative food processing technologies, and associated economic development.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. A review of the proposal supporting the fiscal year 2000 appropriation was conducted on May 11, 2000. Additionally, scientists from outside the university routinely review proposals prior to submission to the agency. The project was evaluated as part of a comprehensive site review in the fall of 1995, with a recommendation by the review team to continue and substantially expand the value-added product development.

PRODUCE PRICING, ARIZONA

Question. Please provide a description of the research that has been funded under the Produce Pricing, Arizona grant.

Answer. CSREES has requested Arizona State University to submit a grant proposal that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. This research is needed address a number of pricing issues and problems in the changing produce industry.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to understand a variety of pricing problems in the produce industry and to evaluate pricing alternatives.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This is a new project that begins in fiscal year 2001. The appropriation for fiscal year 2001 is $75,833.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. We expect state appropriated funds to become a part of this project. The dollar amount will be included with the proposal.

Question. Where is this work being carried out?

Answer. Research will be conducted at Arizona State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What if the anticipated completion date of additional or related objectives?

Answer. The original objectives and anticipated completion date will be specified in the forthcoming proposal.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the project when the first proposal is received.

PROTEIN UTILIZATION, IOWA

Question. Please provide a description of the research that has been funded under the Protein Utilization, Iowa grant.

Answer. CSREES has requested the university to submit a grant proposal that has not yet been received. The research will deal with the utilization of proteins to design new products. Research will be conducted at Iowa State University.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need for research is to create value added market for new protein products with potential for national and international markets

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The overall goal of this project is to develop technologies that will add value to soybean proteins using industrial enzymes. The investigators propose to (1) improve the functional properties of soy proteins; (2) restore the functional properties of head-treated soy proteins; and (3) enhance protein recovery from soybeans and soy products. Iowa State University will team up with Genecor International Inc. to utilize the company's industrial enzyme library in achieving the goal. This is a new project, and the accomplishments will be reported at the end of the project period.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $189,582.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The sources of matching funds will be known when the full proposal is received from the university.

Question. Where is this work being carried out?

Answer. Research will be conducted at Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is August 2002.

Question. What was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Since this the first year of the proposed award, no previous evaluation has been conducted.

RANGELAND ECOSYSTEMS, NEW MEXICO

Question. Please provide a description of the research that has been funded under the Rangeland Ecosystems, New Mexico grant?

Answer. Current research is focused on the ecology of noxious and invasive weeds that are endemic to New Mexico's rangelands. Competitive research grants have been awarded that deal with studying the physiological and toxicological effects of these weeds on livestock.

Question. According the research proposal, or the principal researchers, what is the national, regional, or local focus for this research?

Answer. Noxious weeds are a serious problem in the southwestern U.S. More than one-half of the rangeland is infested in New Mexico and about one-fifth of the rangeland in Texas. Under this program, researchers are working to develop an integrated weed management approach in rangeland ecosystems for that region.

Question. What was the original goal of this research and what has been accomplished?

Answer. Research has led to the understanding of broom snakeweed and other noxious weeds resulting in a better understanding of plant's strategy for invasion and persistence. Currently, the primary focus of research is addressing the need for an integrated weed management approach for noxious weeds, especially broom snakeweed. Three general areas of research are ecology and management, biological control, and toxicology and animal health. One specific accomplishment is the biological control arena; several plant pathogens and insects are proving to be effective in broom snakeweed's control.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001.

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $100,000; fiscal year 1990, $148,000; fiscal year 1991, $150,000; fiscal years 1992 and 1993, $200,000 per year; fiscal year 1994, $188,000; fiscal years 1995 and 1996, $169,000 each year; fiscal year 1997, $175,000; fiscal year 1998, $185,000; and

for fiscal years 1999 and 2000, $200,000 per year; and for fiscal year 2001, $299,340. A total of $2,383,340 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $249,251 state appropriations in 1991; $200,110 state appropriations in 1992; $334,779 state appropriations in 1993; $302,793 state appropriations in 1994; $294,451 state appropriations in 1995; and an estimated $300,000 in state appropriations in each fiscal year 1996 through 2000. A total of $2,881,384 in non-Federal funds have been provided since fiscal year 1991 through 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at New Mexico State University and throughout the State of New Mexico under actual field conditions.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initiated in 1991. Considerable progress has been made on many of the original objectives. Currently, additional and related objectives have evolved, and anticipated completion date for these is 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Each year the grant is peer reviewed with oversight by an administrative executive committee within the College of Agriculture and Home Economics at New Mexico State University. Additionally, CSREES' senior scientific staff review the progress of the grant. Those reviews indicated progress in achieving the objectives.

RED SNAPPER RESEARCH, ALABAMA

Question. Please provide a description of the research that will be funded under the Red Snapper Research, Alabama grant.

Answer. The principal investigators will be developing techniques to culture red snapper in the Gulf of Mexico.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher indicates that there is a regional need for red snapper research because of its importance to the Gulf states and the fact that it is presently considered to be an over-fished species by commercial and recreational interests. Current harvest limitations mandated by Federal actions have resulted in economic losses to coastal communities. Research will provide critical knowledge in efforts to restore native populations and stimulate the development of aquaculture enterprises in the Gulf region.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The project was initiated in fiscal year 2000. The overall goal of the research is to develop hatchery, nursery, and growout methods for the mass production of red snapper that will lead to opportunities for aquaculture development and aid in management and restoration of wild stocks. Accomplishments in fiscal year 2000 included refinement of egg quality evaluation methods to improve larval survival, development of hormone spawning protocols to improve the stimulation of egg release and natural fertilization, evaluation of diets to improve sexual maturation of brood stock, and initiation of studies on photoperiod and temperature manipulation to improve brood stock spawning.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $510,000 and for fiscal year 2001 is $723,405. The total appropriation for this project to date is $1,233,405.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The principal investigators indicate that non-Federal support for this project is provided by the use of state-owned public and private facilities. For fiscal year 2000 state appropriations included $20,000 for salary support and facility use and miscellaneous sources contributed $11,000 for a total of approximately $31,000.

Question. Where is this work being carried out?

Answer. The research is being conducted through the Alabama Agricultural Experiment Station at the Claude Peteet Mariculture Center located in Gulf Shores, Alabama, and at the Alma Bryant High School in Bayou La Batre, Alabama.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is fiscal year 2002. The project was initiated in fiscal year 2000. Studies are currently underway relating to spawning, diet development, broodstock development, and methodologies for growout of food-sized fish. Project objectives are anticipated to be met in fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the progress of this new project on an annual basis. The university submitted an accomplishment report for evaluation purposes for fiscal year 2000 activities that will be updated and included in the fiscal year 2001 proposal submitted to CSREES. The university is fulfilling its work objectives and expanding collaboration with other institutions conducting related research. The 2001 CSREES review will be completed within three weeks of submission of the fiscal year 2001 proposal. The researchers will be requested to develop the research proposal consistent with the National Science and Technology Council's Strategic Plan for Aquaculture Research and Development as in the past.

REGIONAL BARLEY GENE MAPPING PROJECT

Question. Please provide a description of the work that has been funded under the Regional Barley Gene Mapping Project grant.

Answer. The Regional Barley Genome Mapping Project is a multi-disciplinary, multi-institutional project to develop a genome map of barley. Specific objectives are to: construct a publicly-available medium resolution barley genome map; use the map to identify and locate loci, especially quantitative trait loci controlling economically-important traits such as yield, maturity, adaptation, resistance to biotic and abiotic stresses, malting quality, and feed value; provide the framework for efficient molecular marker-assisted selection strategies in barley varietal development; identify chromosome regions for further, higher resolution mapping with the objective of characterizing and utilizing genes of interest; and establish a cooperative mapping project ranging from molecular genetics to breeding that will be an organizational model for cereals and other crop plants.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes barley breeders nationwide need information about the location of agriculturally-important genes controlling resistance to biotic and abiotic stresses, yield, and quality factors in order to rapidly develop new, improved cultivars and respond to disease and pest threats. This project provides that information along with appropriate molecular markers to track these traits through the breeding and selection process. The project is national in scope.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this project has been to develop a restriction fragment length polymorphism map for barley and associated important genetic traits as a map to provide closely-linked molecular markers for barley breeders. The project successfully mapped 300 molecular markers. Portions of the map are described as very dense and contain key location points for enhanced utility. The project is now using the map to locate quantitative traits loci of economic importance. These include genetic determinations for yield, maturity, rust resistance, plant height, seed dormancy, and components of malting quality. Technical papers have been published to report research results to the scientific community.

Question. How long has this work been under way and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1990, $153,000; fiscal year 1991, $262,000; fiscal years 1992–1993, $412,000 per year; fiscal year 1994, $387,000; and fiscal years 1995–1998, $348,000 each year; fiscal year 1999, $400,000 fiscal year 2000, $425,000; and fiscal year 2001, $586,706. A total of $4,429,706 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $203,760 from industry in 1991; $212,750 from industry in 1992; $115,000 from industry in 1993; $89,000 from industry in 1994; and $35,000 from the State of Washington and $108,000 in other non-Federal funding, for a total of $143,000

in 1995, $163,000 for 1996, $178,240 in 1997. In 1998, $147,000; for 1999, $156,000; and for 2000, $154,000.

Question. Where is this work being carried out?

Answer. Research is being conducted in the following state agricultural experiment stations; Oregon, Colorado, Washington, Montana, Idaho, North Dakota, Minnesota, New York, Virginia, and California.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objective was to produce a genetic map of agronomically important traits of the barley genome. The anticipated time to complete this task was estimated at ten years with completion in 1999. The initial goals have been exceeded; however, maps are never "done". The next step will be physical mapping of generich regions in order to study the genes and understand pathways. Researchers will focus on quality and disease resistence. This phase is projected for completion in 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. In 1998, the special grant proposal was subjected to the project approval process at Oregon State University, which is the lead university, and reviewed by an agency scientist. This project is made up of many competitively-awarded mini grants. A subgroup of the National Barley Improvement Committee, which is composed of elected representatives of research, growers, and industry, serves as the peer panel to review and select proposals based on relevance to the original objectives and scientific merit. Multi-disciplinary, multi-institutional, and continuing projects are given the highest priority. The overall project and its min-grants have been judged to be scientifically sound and appropriate for the stated objectives, based on comments and rating from peer scientists which is done on each support prior to selection.

REGIONALIZED IMPLICATIONS OF FARM PROGRAMS, MISSOURI AND TEXAS

Question. Please provide a description of the research that has been done under the program on Regionalized Implications of Farm Programs, Missouri and Texas grant.

Answer. The University of Missouri continuously provides regionalized analysis of alternative farm program designs. This includes providing farm level analysis of national changes in agriculture policy.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The need for this research is to give farm-level or micro view of macrolevel changes; and to provide as accurate and robust an analysis as possible in order to point out regional differences in policy alternatives.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original, as well as current, goal is to provide the farm community, agribusiness groups, and public officials information about farm, trade, and fiscal policy implications by developing regionalized models that reflect farming characteristics for major production regions of the U.S. The researchers have developed a farm level policy analysis system encompassing major U.S. farm production regions. This system interfaces with existing agricultural sector models used for farm, macroeconomic, and trade policy analysis. The universities have expanded the number and types of representative farms to 80. Typical farm models also are being developed for Mexico and Canada under a collaborative agreement for use in analyzing impacts of the North American Free Trade Agreement.

Policy studies completed this past year at the request of policymakers and farm groups included analysis of the impacts of marketing loan provisions on farmers' economic viability; drought on farm income and farm viability; early provision of Agricultural Market Transition Act payments, risk management accounts; and other crop insurance and disaster assistance alternatives.

Results of these analyses were presented to more than 60 different groups across the U.S., including both congressional agriculture committees. The Agricultural and Food Policy Center web site, which contains copies of all Working and Briefing Papers, was visited more than 345,000 times and more than 2 billion bytes of information was transferred.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1990 and the appropriation for fiscal year 1990 was $346,000. The fiscal years 1991–1993 appropriations were $348,000 per year; $327,000 in fiscal year 1994; $294,000 in each of the fiscal years 1995 through 2000; and $293,353 in fiscal year 2001. A total of $3,774,353 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $288,843 State appropriations and $46,773 industry for a total of $335,616 in 1991; $45,661 State appropriations in 1992; $33,979 State appropriations in 1993; $40,967 State appropriations in 1994; $161,876 State appropriations in 1995; $187,717 State appropriations for 1996; $137,100 for 1997; and $161,400 for 1998.

Question. Where is this work being carried out?

Answer. Research is being conducted by the Texas A&M University and the University of Missouri at Columbia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This program is of a continuing nature for the purpose of assessing the impacts of existing policies and issues and proposed policy and program changes at the individual firm level for feed grain, wheat, cotton, rice, oilseed and livestock producers. In addition, the representative farms are constantly being updated as farming practices change. Currently the researchers are making adjustments for the increasing use of Bt and Round-Up Ready seeds.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. No formal evaluation of this project has been carried out, however the CSREES representative is in regular contact throughout the year to track the progress of the stated objectives.

RICE MODELING, ARKANSAS

Question. Please provide a description of the research that has been funded under the Rice Modeling, Arkansas grant.

Answer. The purpose of this research project is to develop a regional, national, and global rice industry model for use in analyzing the impact of changes in domestic and foreign public policies on production, trade, stocks, substitute crops, farm prices, and domestic as well as global consumption.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Research is needed to assist both the U.S. rice industry and national policymakers in assessing the impact of existing and proposed changes in public policies for rice. This research enables improved analysis of both international and domestic policy changes on rice production, stocks, prices of substitute crops, and consumption. It has been, and is being used to analyze the impacts of farm policy proposals on the U.S. rice industry, to analyze the impact of the World Trade Organization—WTO—and the Uruguay Round agreements on United States trade, to analyze the impact of emerging rice importing and exporting countries on United States rice exports, and to analyze the market for different rice types—qualities—and seasonal demand and supply factors that affect the global rice market. The principal researcher believes this research addresses national, regional, and local needs.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop international, national, and regional models to analyze the impact of foreign and domestic policy changes, and forecast changes in production, trade, stocks, prices of substitute crops, farm prices, and consumption.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work actually began about four years ago and Federal research grants from various sources have totaled roughly $2 million prior to this year. The work supported by this grant began in fiscal year 1996. The appropriation for fiscal years 1996 and 1997 was $395,000; for fiscal years 1998 through 2000, $296,000; and for fiscal year 2001, $295,349 for a total appropriation of $1,973,349.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds over the four years prior to this year totaled approximately $500,000. For the 1996 fiscal year, state appropriations were $178,000; and for 1997 and 1998, $150,000.

Question. Where is the work being carried out?

Answer. The research is being carried out at the University of Arkansas-Fayetteville and the University of Missouri-Columbia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The domestic portion of the rice model has been completed. The international modeling research is a little over half completed and the researchers estimate another five years is required. The purpose of constructing the models, however, is to provide on-going analysis of the impact of various policy proposals on the U.S. rice industry.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. We have conducted no formal evaluation of this project. However, annual proposals are peer reviewed for relevance and scientific merit. Also, each annual budget proposal is carefully reviewed for adherence to stated objectives and annual progress is discussed with the principal investigators.

RURAL DEVELOPMENT CENTERS

Question. Please provide a description of the research that has been funded under the Rural Development Centers Program grant.

Answer. There are four regional and two state level rural development centers funded under this grant. The four regional centers play a unique national role in linking the research and extension capacity of land-grant universities with local decisionmakers to address a wide range of development issues affecting rural America. The centers now collaborate on a number of national initiatives on key issues that touch all of rural America, but each continues a research program that addresses the particular needs of its region. National collaboration is underway on e-commerce and e-community opportunities; land use and sprawl; workforce quality in light of technological change, global competition, and Federally-restructured entitlement programs; community design methodology; the impacts of rural schools and public education on rural communities; and the complex links between food systems, rapidly changing agricultural production systems, and community systems.

Research priorities are also identified by stakeholders and partners within the regions. The North Central Regional Center for Rural Development has mobilized scientists to examine the community implications of moving to a more bio-based economy; e-commerce opportunities for remote areas and American Indian reservations; small stores and retail trade; leadership capacity and economic options in areas of population decline; the impact of Federal place-based poverty reduction programs; and methods of sustainable, participatory development. In the Northeast Regional Center, attention is directed to land use and rural development; other land use issues such as farmland preservation, farming on the urban fringe, and urban sprawl; and the emergence and adoption of information technology and its use for rural economic development. The Southern Center portfolio includes research on the food assistance needs of vulnerable populations; increasing diversity of the rural south; the quality of life for children and youth; opportunities and drawbacks of e-business; a systems approach to sustainable development; transitions in southern agriculture and related environmental issues; water quality and quantity issues; health care infrastructure; land use in urban-proximity areas; and workforce preparation and opportunities for new quality jobs in the south. In the west, research is underway on issues of rapid growth and sprawl; public land issues; the impact of energy deregulation on rural electric co-operatives; civic capacity and youth leadership; and the wildfire and residential interface and long term forest health issues.

The two state centers engage in research identified by stakeholders and partners in their respective states. In Louisiana, scientists are looking at rural school districts and teacher preparation; local government capacity; and access to and applications of information technology for rural organizations, agencies and individuals. In North Dakota, the principal investigator is studying the changing age structure and consequences for the state's labor force, as well as the contribution of the economic export services sector to counties in the state. In general, the research agenda of the centers taken together includes understanding trends and emerging issues in rural America; improving economic competitiveness and diversification; supporting the capacity for strategic planning; promoting constructive use and protection of our

natural resources; and helping individuals, families, businesses, farmers, ranchers, and communities adjust to change and achieve prosperity.

Question. According to the research proposal, or one of the principal investigators, what is the national, regional or local need for this research?

Answer. Rural communities and rural economies are increasingly complex and multi-dimensional. Restructuring in agriculture, the rapid rate of change and its uneven effects in rural America, and impacts of global markets are creating new challenges and opportunities for people, families, communities, farms, ranches, and businesses. The mix of challenges varies from one region to another and from one community to another. Some rural and urban communities struggle together with rapid growth, sprawl, congestion, and environmental degradation. Others contend with severe unemployment, out-migration, and loss of businesses and vital services. The significant Federal-state policy shift to "place-based" development puts an increasing burden on local communities to envision, plan, and create their own futures. Many communities lack the capacity to deal with these challenges or to grasp alternative opportunities. Increasingly, they are turning to the land-grant system for research, information, education, and assistance.

Although people living in rural America face an ever increasing number of public issues and problems needing resolution, the number of research faculty addressing broader rural issues is declining in many places. Multi-disciplinary, multi-state research supported by the four regional centers is even more crucial in this context. The regional centers have a proven track record of bringing together the most innovative minds—from both inside and outside the universities—to address cutting-edge issues without regard to state boundaries. They generate credible science-based information that clarifies these issues, and they provide science-based and tested tools for dealing with them. Their research and outreach activities support the public-private partnerships necessary to address the problems facing rural America.

The regional centers have assumed a national role in moving forward the scientific disciplines that underpin agriculture and community and economic development. Their approach increases the capacity for multi-disciplinary thinking and research; seeds new research fields; facilitates creation of new teams of scholars engaged in multi-state, multi-disciplinary and multi-institution research; and quickly moves research results to the constituents who need them. In this manner they play a unique role in the U.S.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The Rural Development Center mission is to strengthen rural families, communities, and businesses by facilitating collaborative research and extension education through land-grant institutions and their partners in the various regions and nationally. Research programs are undertaken after evaluating broad regional and national priorities. Following are some accomplishments of selected research activities conducted under the auspices of various centers.

The Southern Regional Development Center continues to receive national recognition for its Information Briefs, prepared to shed light on the host of challenges and opportunities facing governments, communities, and people in the South. They help national, state, and local leaders and officials understand and respond to the devolution of government services, rural transportation issues and welfare reform, family economics and individual development accounts, the cost of living, rural earnings capacity, job opportunities for low-income people, and child care issues. The center's Millennium Series generates research on persistent and emerging problems in the rural South, as well as optimistic trends. Current topics include wage levels and quality jobs, the economic health of agricultural and non-agricultural firms, rural racial and ethnic diversity, rapid urbanization and its effects on natural and environmental resources, the demand for better educated workers, labor force skills, entrepreneurial opportunities and strategies to diversify the rural economy, the changing structure of families and related family services needs, and barriers to health care quality and access. The full complement of policy briefs will stimulate public dialogue needed to create vibrant, healthy rural communities in the rural South. The center was again chosen by the Economic Research Service to be involved in a small grants program to support research on food assistance and the needs of vulnerable populations in the south.

Like the other regional centers, the southern center links research with extension education in several ways. In fall 2000, it sponsored a direction-setting conference on "Sustainable Development: Building Quality Communities." Co-chairs merged development perspectives from agriculture and natural resources and from community resource development to cross silos which have traditionally divided thinking about rural development across the country. In 2000, the center organized the first-ever institute designed to provide Extension agents a state-of-the-art health issues pro-

gram. Recent integrated programs were continued. For example, with land-grant faculty in the southeast, the center developed and continues to sponsor the Southern Regional Community Development Institute. Diverse extension educators—agriculture, natural resources, family and youth development, community development, and middle management—spend five days attending sessions on understanding community, strategic planning, asset-mapping, social infrastructure, local government, problem-solving, economic and sustainable development, and leadership skills. Demand for the training continues, and the center held its third Institute in the summer of 2000. The Mid-South Delta Institute also continues as an on-going participatory research and training program designed to help community leaders in northwest Mississippi develop skills in asset-mapping, strategic planning, building partnerships, and consensus-building.

The North Central Regional Center for Rural Development continues to expand its extensive repertoire of research that informs policy and sustainable community development programs. It now plays a national role in considering the community implications of moving to a more bio-based agriculture. It is supporting research and public advocacy coalitions around different issues related to biotechnology, work critical to the process of developing and maintaining a trusted and high quality scientific base. Other research examines points of intersection between trends in agriculture and rural economic and community vitality; demographic shifts and increasing ethnic diversity; and research on industrial recruitment and value-added firms locating in rural communities. Current research also focuses on ingredients to reduce gross migration in rural areas, e-commerce viability in remote areas and for diverse populations, the match between leadership development curricula and areas of persistent poverty, and the geography of rural financing and investment capital. Each of these research program areas is fully integrated with extension activities in the north central region. Its integrated approach has won national recognition for the center in the areas of workforce preparation, state of the art community visioning and strategic planning, social indicators for community and economic planning, and Federal program assessment including the Empowerment Zone/Enterprise Community initiative and national workforce preparation programs. The center has also supported research that enhances the scientific methods land-grant faculty use in applied research on rural development. For example, research demonstrates the power and utility of clustering geographic and demographic data and linking geodemographic clusters to Agriculture Census and Decennial data. Other research analyzes the future of small rural trade centers as providers of public services, the dynamics of rural retail trade, and the most critical needs of rural business communities. Through its workshops, conferences, training programs, and newsletter, Rural Development News, the North Central center provides research results and related educational materials to rural development professionals in land-grant and partner institutions and organizations across the country and internationally.

In the Northeast Regional Center, strategic planning during the first six months of 2000 under a new director resulted in valuable stakeholder input and a focused list of research and extension priorities. Small research and extension grants are now targeted for a more effective return on invested dollars. As a top priority, grants now support integrated activities on land use and rural development, with a land use conference to follow sometime in 2001. Farmland preservation, farming on the urban fringe, urban sprawl, and urban-rural conflict are issues highlighted for research and outreach. Information technology also emerged as an important area for research, and regional research and planning grew out of a joint four-center national conference in 2000. To facilitate research dissemination and networking capability in the region, the Northeast center set up specific briefing rooms on its website on land use/sprawl, community-supported agriculture, community design, business retention and expansion, workforce preparation, youth development, local government issues, entrepreneurship, leadership visioning, and consensus-building. In addition, the center identified and reported on two major trends affecting rural counties in the northeast: a persistent and growing gap between per employee earnings in metro and non-metro counties; and the steady increase in the share of self-employed workers in the total workforce. The center is now evaluating implications of these trends for development strategies.

As in the northeast, the Western Rural Development Center devoted part of 2000 to strategic planning and organizational development under a new director. One focus in the year was to build partnerships within the region, especially with the fabric of extension and experiment station program in the west. Input from these stakeholders helped identify priorities and programmatic goals. Because few faculty in the western land-grant institutions are actively involved in rural development work, the center organized a faculty development workshop, seeded the development of research proposals on rural development issues, and partnered with regional fac-

ulty on competitive grant programs, again in an effort to build the research capacity in the region. The center continued its work on a "Rapid Growth Toolkit" to help community leaders and local governments understand and address rapid growth at the community level.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1971, $75,000; fiscal year 1972, $225,000; fiscal year 1973, $317,000; fiscal years 1974–1981, $300,000 per year; fiscal years 1982–1985, $311,000 per year; fiscal years 1986–1987, $363,000 per year; fiscal year 1988, $475,000; fiscal year 1989, $500,000; fiscal year 1990, $494,000; fiscal years 1991–1993, $500,000 per year; fiscal year 1994, $470,000; fiscal years 1995–1998, $423,000 per year; fiscal years 1999–2000, $523,000 per year; and fiscal year 2001, $521,849. A total of $11,685,849 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds available to the four regional centers, as previously reported, were: fiscal year 1991, $1,117,000; fiscal year 1992, $790,000; fiscal year 1993, $900,000; fiscal year 1994, $776,591; and fiscal year 1995, $710,050; for a total of $4,293,641 across those five years. Non-Federal funds available to the four regional centers since 1995 were: fiscal year 1996, $3,559,662; fiscal year 1997, $1,322,237; fiscal year 1998, $2,660,048; fiscal year 1999, $1,472,249; fiscal year 2000, $1,300,990; fiscal year 2001, $1,573,316. The total for 1996 through 2001 is $11,888,502. Non-Federal partners sponsoring research and related extension programs through these centers since 1995 include the Farm Foundation, the Northwest Area Foundation, the University of Kentucky's Tennessee Valley Authority Rural Studies Program, the W. K. Kellogg Foundation, the Upjohn Institute, the Kerr Center for Sustainable Agriculture, the National 4-H Council, the Heartland Center, Farmer's Legal Action Group, Pegasus Satellite Television, and Cornell University's Conneman project. Other Federal partners include the U.S. Environmental Protection Agency, the Small Business Administration, and in USDA—Rural Development, Economic Research Service, Agricultural Research Service, Forest Service, Sustainable Agriculture Research and Education, and National Resource and Conservation Service. The regional centers continue to expand their non-Federal partnership base and have established an impressive record of brokering partnerships with private foundations and non-governmental organizations, as well as other Federal partners, to meet their goals and extend the impact of their allocated Federal dollars.

Question. Where is this work being carried out?

Answer. The four regional rural development centers include the following: Northeast Regional Center for Rural Development at Pennsylvania State University; North Central Regional Center for Rural Development at Iowa State University; Southern Rural Development Center at Mississippi State University; and Western Rural Development Center at Utah State University. The state level rural development centers are at North Dakota State University and Louisiana Tech University. Most of the research sponsored by the four regional centers is performed by resident faculty at land-grant universities in the respective region through subcontracts from that center's grant.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives.

Answer. The regional rural development centers were established to provide an on-going "value added" component to link research and extension and by doing so to increase rural development under the special conditions in each region. The work of the Centers is being carried out in all 50 states and in some territories. The Centers compile a report of annual accomplishments and share those with the states in the region. Accomplishments are now shared through sophisticated, interactive web sites. The list of needs is constantly evolving and is being addressed through projects that are matched to the constantly shifting local and regional agenda. The current phase of the program will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The proposals for the four regional and two state centers have all undergone merit reviews. The regional centers enlist the help of academic and private/public foundations personnel on advisory committees, boards of directors, and technical advisory committees to help establish research and extension priorities and operating rules and to provide professional, technical counsel and peer evaluation of Center projects and the investigators. The projects are evaluated annually through

peer review of scientific merit by the advisory committees and through merit review by the boards of directors against the five key issue areas and the objectives of each project for relevance, achievement, and initial impacts. Follow-up evaluation is carried out by the Center staffs in order to assess long-term impacts of these projects on local communities.

The Southern Rural Development Center was engaged in strategic planning over the course of the last six months of 2000. Input from over 150 individuals was studied by the Technical Advisory Committee and discussed at its fall 2000 meeting. That committee will submit recommendations in January 2001 to the Center's board of directors.

A full outside review of the North Central Regional Center for Rural Development was conducted in 2000. The review team concluded, "The Center is doing consistently high quality work. It has had considerable impact on rural development research and extension in the land-grant universities across the region, and nationally, and it has been of benefit to many non-government organizations, community leaders, and state and Federal agencies beyond the land-grant system." The team's positive assessment of the Center's performance led it to recommend that "The Center should continue its integrative research-engagement approach in its own projects but it is now time to take this approach beyond its own projects and become a promoter and teacher of an integrative approach throughout the region and the country. The Center is a leader in rural development at the national and regional levels and has facilitated and nurtured the development of leadership among the region's states and communities."

RURAL POLICIES INSTITUTE, NE, IA, MO

Question. Please provide a description of the research that has been funded under the Rural Policies Institute, Nebraska, Iowa, and Missouri grant.

Answer. The Rural Policy Research Institute is a consortium of three universities designed to create a comprehensive approach to rural policy analysis. The Institute conducts research and facilitates public dialogue to increase public understanding of the rural impacts of national, regional, state, and local policies on rural areas of the U.S.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. There is a need to estimate the impacts of changing state and national programs and policies on rural people and places. Objective public policy analysis can provide timely and accurate estimates of the impacts of proposed policy changes to allow more reasoned policy discussions and decisions. The principal researcher believes this research meets national, regional, and local needs.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the Rural Policy Research Institute was to create a new model to provide timely, accurate, and unbiased estimates of the impacts of policies and new policy initiatives on rural people and places. That model was developed, and the Institute's policy analysis research and dissemination activities have expanded significantly. The Institute's programs develop in response to current and emerging issues in rural America. Work in 2000 centered on six Institute projects: the Community Policy Analysis Network, Rural Equity Capital Initiative, Rural Health Panel, Operation Rural Health Works, Targeted Rural Economic Development, and Rural Welfare Reform Panel. The Community Policy Analysis Network refined methods of modeling policy alternatives at the community level. Their efforts provide quantitative estimates of economic, demographic, and fiscal effects of policy alternatives on local communities of different types and in different regions. Members of the Network published 2 white papers, 9 journal articles and book chapters, and 15 staff papers and research reports. The Rural Equity Capital Initiative mobilized scientists to examine issues related to access to capital for rural development and resulted in 2 policy briefs, 5 presentations at conferences, and consultations with governors in Ohio and Missouri. Rural Health Panel members published 6 policy papers, 2 policy briefs, and 2 journal articles. They also contributed to congressional staff briefings on medicare, prescription drugs, and other rural health insurance issues and presented papers at seven professional meetings. Through Operation Rural Health Works, the Institute published a policy brief on community-level impacts of losing health care infrastructure and produced a video on saving rural hospitals. Other outreach included Congressional testimony, presentations at 13 professional meetings, and workshops in Washington, D.C., and 13 states. The Institute's work on Targeted Rural Economic Development is a new project area. It resulted in presentations and extension programs in four states, website publications,

and steps to establish partnerships for the project, including the U.S. Forest Service and the Economic Development Administration. The Rural Welfare Reform Panel published two white papers and a database on welfare reform research, and the Institute co-sponsored a national research conference and organized a congressional briefing on rural dimensions of welfare reform. During 2000, the Institute also analyzed classifications of metropolitan and micropolitan areas proposed by the Office of Management and Budget; developed methods to analyze the impacts of Living Wage legislation on workers, businesses, and the public sector; advised the National Governors' Association on workforce development and entrepreneurship; served as a consultant for the Wallace Institute on the Farm Bill and for the Kauffman Foundation on minority, rural, and non-profit strategic planning; served on the Pinchot Institute's Task Force reviewing the U.S. Forest Service Cooperative Forestry Programs; and worked with the Congressional Rural Caucus on numerous briefings. The Institute's work is published and cited in numerous academic journals, discussed in the media, and widely used by policy decision makers at all levels of government.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by these grants began in fiscal year 1991 and the appropriation for fiscal year 1991 was $375,000. The fiscal year 1992 appropriation was $525,000; for fiscal year 1993, $692,000; for fiscal year 1994, $494,000; for fiscal years 1995–2000, $644,000 each year; and for fiscal year 2001, $820,192. A total of $6,770,192 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Aggregated non-Federal funds to support the Rural Policy Research Institute across the three involved universities include unrecovered indirect costs, salary support from university and other non-Federal sources, and various other grants, contracts, and reimbursable agreements. They amounted to $316,458 for fiscal year 1991; $417,456 in fiscal year 1992; $605,302 in fiscal year 1993; $537,834 in fiscal year 1994; $584,516 in fiscal year 1995; for fiscal year 1996, $576,782; for fiscal year 1997, $186,859; for fiscal year 1998, $153,614; for fiscal year 1999, $168,450 for; for fiscal year 2000, $137,254; and an estimated $188,382 for 2001. Total to date, including the 2001 estimate, is $3,872,907.

Question. Where is this work being carried out?

Answer. The Institute's member universities are: the University of Missouri-Columbia; the University of Nebraska-Lincoln; and Iowa State University, Ames.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1991 was for a period of 24 months; however, rural communities continue to be impacted by major socio-economic changes as well as state and Federal policy changes. Citizens and elected officials at all levels of government continue to need expert analysis of the impacts of current policies and policy changes and of alternatives. CSREES funding supports the Institute's ability to generate research on changing conditions in rural America and conduct briefings on a myriad of rural policy issues The current phase of the program will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in February 1999, as it evaluated the 1999 project proposal, and determined that: "[The Institute] is an effective interdisciplinary, multistate effort that supports the mandates for collaboration in the Agricultural Research, Extension and Education Reform Act of 1998. Its work supports CSREES strategic goals of enhancing economic opportunity and quality of life. The principal investigator and participants are well qualified to conduct the project."

RUSSIAN WHEAT APHID, COLORADO

Question. Please provide a description of the research that has been funded under the Russian Wheat Aphid, Colorado grant.

Answer. Funding will support two key areas of research that are needed to assure long-term and sustainable Russian wheat aphid management. These are: (1) Discovering new crop genes which provide resistance to the Russian wheat aphid and incorporating them into commercially-acceptable wheat varieties, and (2) Integrating the available control tactics into the most effective, efficient, and environmentally-sound production systems for the Great Plains.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Russian wheat aphid is an exotic invasive pest that entered the western U.S. without its normal complement of biological control agents. This insect has rapidly become the most important insect pest of wheat in the western U.S. From 1986–1991, the total economic impact was estimated to be in excess of $657 million. In the same period, some 17.5 million pounds of insecticides were used nationally for Russian wheat aphid control. The cost to American farmers of insecticide treatments was over $70 million. In addition, the intense use of insecticides on a crop that previously received little insecticide treatment raised concerns about the impact on water quality, human health, food safety, non-target organisms, and general environmental quality. Direct losses in Colorado have been as high as $27 million in a single year with an average direct loss of above $11 million per year since 1987.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals of the research are to: (1) Discover new crop genes which provide resistance to the Russian wheat aphid and incorporate them into commercially-acceptable wheat varieties; and (2) Integrate the available control tactics into the most effective, efficient, and environmentally-sound production systems for the Great Plains. The techniques of molecular genetics are being employed to reach the goal of identifying new genes for resistance to Russian wheat aphid and incorporating them into commercially-acceptable wheat varieties.

In addition, the mapping effort of this project will access cDNA libraries produced under a National Science Foundation grant awarded to a team of U.S. wheat researchers for the purpose of developing tools for wheat genomics. Progress has been made in Integrating Tactics for Management of the Russian wheat aphid. In 1998, experimental dryland cropping systems were established in eastern Colorado. Long-term studies compare the experimental systems with typical wheat production systems in the area. The experimental systems were designed to optimize the effects of environmentally-sound pest management tactics and Russian wheat aphid numbers through the actions of predators and parasites. In addition, the experimental systems were designed to optimize water use efficiency and other agronomic and profitability factors.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998 and the appropriation for fiscal years 1998 through 2000 was $200,000 per year; and for fiscal year 2001, $249,450. A total of $849,450 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. State appropriations and the Colorado Wheat Administrative Committee have demonstrated strong support for this effort. The total per year is approximately $775,000 in new funding from the state of Colorado and redirected funds from within the university.

Question. Where is the work being carried out?

Answer. Research will be conducted on the campus of Colorado State University, at Colorado State University research stations, and on the farms of cooperators throughout Colorado. Outreach and extension activities are being shared with scientists and wheat growers in Colorado, Nebraska, Wyoming, Kansas, New Mexico, Texas, and Oklahoma.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This project is anticipated to continue for a total of five years with a completion date of July 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was evaluated by a CSREES site visit on February 4 and 5, 1999. Laboratory, greenhouse, and field research facilities available for the research program underway are excellent and progress has been excellent. Greenhouse space appears adequate for the work, and the units are well adapted for the wheat breeding program. Rearing facilities and the support personnel for maintaining a source of aphids used for bioassays are also excellent. Research laboratories are very well equipped for the studies, either proposed or underway, and there is strong technical support for the research which involves application of techniques of molecular genetics to wheat breeding. The research scientists represent strengths in both classical or traditional wheat breeding and new molecular genetics-based

wheat breeding. The group also has strong, well recognized expertise in Russian wheat aphid biology, ecology, and management and also in dryland wheat production systems used in the Great Plains states. In short, there would appear to be few, if any, other locations which could match the combination of facilities, equipment, and scientific and technical support needed to achieve the goals of this project. The project is a multifaceted, multi-disciplinary program which is directed toward long-term solutions for Russian wheat aphid management utilizing a viable combination of approaches which requires the type of facilities and equipment available at this location.

SAFE VEGETABLE PRODUCTION, GEORGIA

Question. Please provide a description of the research that has been funded under the Safe Vegetable Production, Georgia grant.

Answer. This is a new grant and the University of Georgia is presently preparing a grant proposal for submission.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. According to the principal investigator, 1.37 billion tons of animal manure is produced annually in the United States. Approximately 90 percent of this is produced by cattle. Farm surveys indicated that 1 to 5 percent of the cattle shed E. coli 0157:H7, a human pathogen, in their manure. Since human consumption of organic produce is increasing at an unprecedented rate, and since many organic farmers use bovine manure as a fertilizer, research is needed to develop practical methods of treating manure to assure that it is safe when used as a fertilizer in vegetable production.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this project is to evaluate the hazards associated with manure used as fertilizer in vegetable production and to develop innovative and practical treatments to reduce the risk of spreading harmful microorganisms to crops from manure.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $284,373.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. This is a cooperative project between the Center for Food Safety and Quality Enhancement, University of Georgia, Griffin; the Coastal Plain Experiment Station, University of Georgia, Tifton; the USDA/ARS Soil-Microbial Systems laboratory, Beltsville, Maryland; and private industry. Industry has committed $50,000 to this project for fiscal year 2001.

Question. Where is this work being carried out?

Answer. The work is being carried out at the Center for Food Safety and Quality Enhancement, University of Georgia, Griffin; the Coastal Plain Experiment Station, University of Georgia, Tifton; and the USDA/ARS Soil-Microbial Systems laboratory, Beltsville, Maryland.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. The anticipated completion date for the original objectives is the end of fiscal year 2004. This is a new project and research of the original objectives has just begun.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. A peer review of the project will be undertaken by the performing institution, and the agency will conduct a throughout evaluation of the proposal upon receipt.

SATSUMA ORANGE PRODUCTION, ALABAMA

Question. Please provide a description of the research that has been funded under the Satsuma Orange Production, Alabama grant.

Answer. This is a new grant and Auburn researchers are presently preparing a grant proposal for submission.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Satsuma oranges are a type of orange commonly referred to as tangerines. In the past, there was significant production of satsuma oranges in Alabama. However, a series of unusually cold winters has placed this important production system at risk of being lost. Research is needed to determine practical new methods for raising satsuma oranges and to develop cold tolerant plant material.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to identify new ways of producing satsuma oranges under potentially unfavorable environmental conditions. This is a new grant and the work has not yet begun.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001.

Answer. The work supported by this grant begins in fiscal year 2001 and the amount appropriated for fiscal year 2001 is $473,955.

Question. What is the amount and source of non-Federal funds provided by fiscal year?

Answer. Presently no non-Federal funds are being provided.

Question. Where is this work being carried out?

Answer. The work is being carried out by the Alabama Agricultural Experiment Station, with a subcontract to the Citrus Research Station of the Louisiana Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have these been met? What is the anticipated completion date of the additional or related objectives?

Answer. This is a new project and the anticipated completion date has not yet been determined.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. This is a new project. A peer review of the project will be undertaken by the performing institution and the agency will conduct a throughout evaluation of the proposal upon receipt.

SCLEROTINIA DISEASE RESEARCH, MINNESOTA

Question. Please provide a description of the research that has been funded under the Sclerotinia Disease Research, Minnesota grant.

Answer. Research will focus on spring planted canola which is increasing in importance as an alternative crop in the upper midwest states of Minnesota and North Dakota. The main objective of the research is to develop strategies for growers to use to manage sclerotinia to prevent yield reductions in canola fields.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The scope of the research will be to investigate the disease Sclerotina, also known as white mold, affecting canola. This is a serious disease that affects a number of rotational crops such as sunflower, soybeans, dry beans, and canola in the Red River Valley of Minnesota and North Dakota. Yield losses can be as high as 50 percent. Canola is a source of an excellent low-saturated fat edible oil the can be used to meet increased consumer demands for healthy oil.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The main objective of the research is to develop strategies for growers to use to manage sclerotinia to prevent yield reductions in canola fields. There are six sub-objectives which are: variety evaluation and selection; fungicide evaluation for control of sclerotinia; sclerotinia forecasting model for sclerotinia control; sclerotinia ascospore infection techniques for canola; influence of crop rotation on canola diseases; and survey of grower fields for sclerotinia.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001 ?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $237,476.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since the proposal has not been submitted to CSREES, the non-Federal funds and sources provided for this grant cannot be determined at this time.

Question. Where is this work being carried out?

Answer. Research will be conducted jointly by the University of Minnesota and the North Dakota State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is five years.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the programmatic merits of the proposal by at least one senior scientist. Additionally, the university will provide a peer review prior to submitting their grant.

SEAFOOD HARVESTING, PROCESSING, AND MARKETING, ALASKA

Question. Please provide a description of the research that has been funded under the Seafood Harvesting, Processing, and Marketing, Alaska grant.

Answer. This project was initiated in fiscal year 2000. The goal of this project is to improve and develop technologies in seafood harvesting, processing, product development, and marketing Alaska. The CSREES Seafood Harvesting, Processing, and Marketing Program for fiscal year 2000 has six subprojects. They are entitled: "Building an Industrial Test Version of a High Capacity Automated Pinbone Removal Machine for In-Plant Tests", "Utilizing By-Catch: Developing Processes for Texturized, Cooked Minces for Food Service Application", "Opportunities for Flaked Products from Pink Salmon", "Feasibility Study—Evaluation of Spectroscopic and Imaging Technologies for Detecting Bruising in Salmon", "The Digital Observer Project—Development of Fish Recognition and Weight Estimation Software" and "Feasibility Study for Alaska Herring Food Product Diversification." A proposal in support of fiscal year 2001 has been requested.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Alaska harvests more than half of all the fish landed in the U.S. and upwards of 65 percent of the food fish. The subprojects in this program are designed to help increase the value of Alaska's Seafood Industry through fostering greater utilization of the fisheries resources as human food and greater efficiency in their production. Federal support for research in this area has dropped from $17.3 million to little more than $1 million nationwide, largely through a significant reduction in Saltonstall-Kennedy funds. The funds are appropriated from duty collected on imported seafood to National Marine and Fisheries Service, which in turn makes grants to U.S. universities. USDA traditionally has supported fish food research primarily from aquacultured fish. The State of Alaska and private industry have been supporting applied fisheries research. Though the product is harvested in Alaska, the benefits are shared with fishermen residents in Washington State, Oregon, California, and throughout the nation.

Question. What is the original goal of the research and what has been accomplished to date?

Answer. The objective is to complete the six subprojects listed above. These projects have considerable significance to the Seafood Industry. Informed people from government and industry helped to identify the most important objectives facing the industry. The subprojects mentioned address pertinent research needs in the areas of harvesting, processing, and marketing of Alaska seafood.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This project was started in fiscal year 2000 with an award of $552,500. In fiscal year 2001, the amount to be appropriated is $1,165,430. A total of 1,717,930 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. Our estimates for industry contributions for the subprojects are as follows: (1) Building an Industrial Test Version of a High Capacity Automated Pinbone Removal Machine for In-Plant Tests, Summer 2000. Industry contributions total $18,000; (2) Utilizing By-Catch: Developing Processes for Texturized, Cooked Minces for Food Service Application. Industry contribution $28,000: (3) Opportunities for Flaked Products from Pink Salmon. Industry contribution $15,000; (4) Feasibility Study—Evaluation of Spectroscopic and Imaging Technologies for Detecting Bruising in Salmon. Industrial contribution $8,500; (5) Digital Observer Project—Development of Fish Recognition and Weight Estimation Software. This is part of a much larger project for which the total industrial contribution is over $200,000; and (6) Feasibility study for Alaska Herring Food Product Diversification. Industrial contribution $13,200. Total industry contribution is approximately $282,700.

Question. Where is this work being carried out?

Answer. Research is being conducted by scientists at the University of Alaska—Fishery Industrial Technology Center in Kodiak, Alaska; The University of Alaska, Fairbanks; The Center for Applied Regional Studies, Cambridge Massachusetts; Washington State University; and Cornell University.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The anticipated completion of the full objectives of this research is one year.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was reviewed on August 30, 2000. The proposal aims to advance the Alaskan Seafood Industry through research problems facing harvesting, processing, and marketing of seafood. The goal is to increase the resources and value of Alaskan seafood. New and value added products will be developed from pink salmon, herring, and arrow tooth flounder. Appropriate new technologies will be developed.

SEAFOOD HARVESTING, PROCESSING, AND MARKETING, MISSISSIPPI

Question. Please provide a description of the research that has been funded under the Seafood Harvesting, Processing, and Marketing, Mississippi grant.

Answer. Research related to seafood safety, quality, and by-product utilization has been supported by this grant. For fiscal year 2000, funds supported research on: (1) antimicrobial potential of phloxine B against Listeria monocytogenes, Escherichia coli, Saccharomyces cerevisiae, and Aspergillus niger; (2) effects of starvation and acid stress on the growth characteristics, heat tolerance, freeze thaw stability, and virulence factor expression of Aeromonas hydrophila; and (3) processing yield and proximate composition, color, microbial counts, and surimi quality of mince obtained from under-utilized Gulf Coast fish. Funds from the fiscal year 2000 grant are supporting research through September 30, 2001. A proposal in support of fiscal year 2001 funds has been requested

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The national needs reflected in the project include providing consumers with affordable alternative seafood products and assessing the food safety implications of new antimicrobial agents and emerging pathogens. Continuation of this project will provide continued assistance to Gulf-Coast seafood processors in meeting new U.S. regulations as well as new international regulations that are important for Mississippi export products. Locally, catfish processors are a major employer of the severely economically-depressed Delta region of Mississippi. By further enhancing the value of catfish products, this project seeks to improve the livelihood of individuals both on the Gulf coast and in the aquaculture region of the state.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The original goals of the research were to improve the quality and safety of catfish and improve the utilization of catfish byproducts and underutilized marine species. Due to successes of the original project, subsequent efforts are focusing on additional uses of seafood and aquaculture foods by improving processing strategies and providing alternative products from waste materials. The project has thus expanded to include crab, shrimp, oysters, freshwater prawns, hybrid striped bass, tilapia, and crawfish. The Food and Drug Administration has passed rulings affecting the potential viability of Mississippi seafood and aquaculture harvesters and processors; emphasis is thus being placed on addressing possible adverse consequences resulting from these changes.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1990 when $368,000 was appropriated for this project. The appropriations for fiscal years 1991–1993 were $361,000 per year; fiscal year 1994, $339,000; fiscal years 1995–2000 $305,000 each year; and fiscal year 2001, $304,329. A total of $3,924,329 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The State of Mississippi contributed $1,949 to this project in fiscal year 1991; $41,286 in fiscal year 1992; $67,072 in fiscal year 1993; $91,215 in fiscal year 1994; $147,911 in fiscal year 1995; and $61,848 in fiscal year 1996. Product sales contributed $7,044 in 1991, $13,481 in 1992, $13,704 in 1993, and $5,901 in 1994.

Industry grants contributed $14 in 1992 and $31,796 in 1993. Other non-Federal funds contributed $80 in fiscal year 1991, $838 in 1992, and $17,823 in 1993. The total non-Federal funds contributed to this project from 1991 through 1996 was $501,962. In fiscal year 1998, $151,286 in state funds, $8,790 in self-generated funds, and $23,877 in other non-Federal funds were obtained. In fiscal year 1999, $65,998.05 in state funds were contributed to this project. Information on funding for 2000 is not currently available.

Question. Where is this work being carried out?

Answer. Research is being conducted by scientists in the Departments of Food Science and Technology and Agricultural Economics of the Mississippi Agricultural and Forestry Experiment Station at Mississippi State University and at the Coastal Research and Extension Center, Seafood Processing Laboratory, in Pascagoula, Mississippi.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The principal investigators anticipate that research on the original objectives will be completed in 2000. Continuing needs by Mississippi seafood and aquaculture harvesters and processors related to improved quality, safety, and utilization will require research and development of new technologies to expand this industry.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. The last review of the proposal was conducted on August 30, 2000. At that time, the agency science specialist believed that the projects addressed needs and interests of the regional seafood and aquaculture industries.

SEAFOOD SAFETY, MASSACHUSETTS

Question. Please provide a description of the research that has been funded under the Seafood Safety, Massachusetts grant.

Answer. Research will be conducted to improve the safety of seafood products.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher indicates the need to strengthen the local and Northeast region fisheries industry by addressing and solving priority seafood safety issues critical to assuring public health and maintaining consumer confidence in a variety of economically-important fisheries and aquaculture products.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was to investigate handling, storage, and processing techniques which will improve the food safety of seafood products. Accomplishments to date include examination of fresh fish samples at the retail level for the human pathogen, Listeria monocytogenes, and evaluation of several chemicals classified as generally regarded as safe to inhibit the growth of the human pathogen under investigation.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000. The appropriation for fiscal year 2000 was $255,000 and the fiscal year 2001 appropriation is $277,388. The total appropriated for this project is $532,388.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In fiscal year 2000, $13,000 was obtained from the American Meat Institute, and an additional $12,000 was made available from the Department of Food Science, University of Massachusetts, Amherst, Industrial Endowment Fund. Additional non-Federal funds are anticipated for the fiscal year 2001 grant.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of Massachusetts-Amherst, Chenoweth Laboratory of the Department of Food Science through the Agricultural Experiment Station and in cooperation with seafood processing plants located in Gloucester and Boston, Massachusetts.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is fiscal year 2002. Work is progressing and is still ongoing relative to the original objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency will evaluate the progress of this project on an annual basis. The university submitted an accomplishment report for evaluation purposes for fiscal year 2000 activities that will be updated in the new grant proposal submitted to CSREES for fiscal year 2001 funding. The 2001 CSREES review will be completed within three weeks of submission of the fiscal year 2001 grant proposal.

SMALL FRUIT RESEARCH, OR, WA, AND ID

Question. Please provide a description of the research that has been funded under the Small Fruit Research, Oregon, Washington, and Idaho grant.

Answer. Funding for this special grant has been used to enhance the production and quality of small fruits—blackberry, blueberry, caneberry, cranberry, marionberry, raspberry, strawberry, and grape in the Pacific Northwestern states of Idaho, Oregon, and Washington. Research has been focused on crop genetics, production/physiology, pest management, berry/grape processing, marketing, and wine production. Proposals are reviewed and selected after evaluation of their scientific merit and relevance to priorities identified within the region.

Question. According the research proposal, or the principal researcher, what is the national, regional, and local need for this research?

Answer. The importance of berry and grape crops to the region has long been recognized by the three northwest states: Washington, Idaho, and Oregon. These crops are mainstays of high-value, specialty horticulture. The universities and small fruits industry have made a strong commitment to the improvement of these crops as evidenced by the high level of internally-developed resources for research and marketing. There is a considerable demand for fresh and processed berry products in the U.S. and in urban Asian markets. Research on international consumer preferences, packaging, and products continues to be essential.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. Genetic improvement of small fruit cultivars continues to be a powerful tool using germplasm collection and identification, field evaluation of new germplasm, and advanced selections from breeding programs, virus identification and elimination, and approaches that utilize genetic engineering. Research is identifying cultivars and developing cultural practices that growers can utilize to reduce crop losses. Research is evaluating and investigating nutritional factors, cultural management, temperature stress, effects of pruning, micro propagation, cold hardiness/low temperature injury, and effects of viticulture practices on wine quality and of winery processing on wine quality.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001.

Answer. The initial support for this grant was an appropriation in fiscal year 1991 for $125,000. The fiscal appropriation for 1992 and 1993 was $187,000 per year; fiscal year 1994 was $235,000; fiscal years 1995–1998 were $212,000 each year; fiscal year 1999 and 2000 was $300,000 each year; and is $324,285 for fiscal year 2001. A total of $2,506,285 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. There are no non-Federal funds supplementing this grant. This project involves the use of the Oregon State University administrative personnel, equipment, utilities, and facilities that are indirect costs to the project. These costs constitute an OSU contribution to this research project.

Question. Where is the work being carried out?

Answer. The research is being conducted at Oregon State University, Washington State University, and the University of Idaho. Oregon State University is the lead institution for this project.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives are still valid researchable issues, therefore this is a continuing process with priorities annually re-evaluated to appropriately adjust research direction within the project objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project evaluation process is accomplished annually by peer reviewers whom are chosen and organized by expertise according to the five technical working groups with input from the designated Agricultural Experiment Station

Representatives in Washington, Oregon, and Idaho. The Program Administrator in each state contacts possible reviewers for each proposal. The chair of the review process annually rotate between the Agricultural Experiment Station representatives. Each submitted proposal is peer-reviewed by a panel of five individuals—three scientists and two industry representatives—and is grouped into one of the Center Technical Working Groups, namely genetics, pest management, production/physiology, processing/packaging, and marketing. Proposals are evaluated on the following criteria: (1) The nature of the proposed research and its relevance to the needs of the small fruit industries; (2) The relevance of the proposal to current small fruit research designated priorities; (3) The scientific expertise of the scientists involved—training, experience, and accomplishments relative to specific areas of small fruit research; (4) The appropriateness of the level of funding requested, vis-a-vis, availability of funds; and (5) The likelihood of success. Reviewers complete an evaluation sheet for each proposal, rating the five criteria on a scale of one to ten, with ten being the best. Previously awarded projects are given special consideration in order to allow for funding for up to three years—when appropriate progress is demonstrated. Compilation of evaluations are distributed to the three Agricultural Experiment Station Directors and the USDA-Agricultural Research Service—ARS—Horticultural Crops Research Laboratory Research Leader, who make the final determination of funding for each proposed project. Notification of awards are made in December. The peer review of all proposals is coordinated and processed through the Northwest Center for Small Fruit.

SOUTHWEST CONSORTIUM FOR PLANT GENETICS AND WATER RESOURCES

Question. Please provide a description of the work that has been funded by the Southwest Consortium for Plant Genetics and Water Resources Grant.

Answer. Work funded by this grant is cooperative, innovative, and relevant to crop adaptation in arid and semi-arid lands. The primary objectives of research funded by the Southwest Consortium are: to determine and evaluate tolerance to biological and chemical stresses in desert plants, to determine the impact of these stresses on susceptibility of plants to pests and pathogens as well as on the activities of symbionts and beneficial organisms, and to determine and evaluate genetic modification of plants that are targeted for better adaptability to stress of arid and semi-arid environments and the problems of water use efficiency and water quality.

All funded research has a water and a genetic component and requires an interdisciplinary research team. The interdisciplinary research teams are formed from researchers at the five participating southwestern institutions, which include New Mexico State University, Texas Tech University, Los Alamos National Laboratory, University of Arizona, and the University of California in Riverside.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This research is highly significant on all levels. The Southwest Consortium conducts an integrated program that identifies specific problems of southwest agriculture, coordinates water and biotechnology research aimed at solving these problems, and facilitates the transfer of this information for further research, development, and commercialization. This coordinated arid lands research is relevant, necessary, and can be applied regionally, nationally, and locally, as well as be applied for international improvements of arid lands agriculture.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original and ongoing goal of this research is to provide funding for the development of innovative and competitive research that is relevant to arid lands agriculture. The Southwest Consortium is a mini-grant program which awards seed money to researchers from the five participating institutions. Projects are selected for funding based on a thorough external and committee peer review. Over 50 projects have been funded since the Consortium was established in 1986, with numerous accomplishments in research relevant to arid lands agriculture. Among the most recent accomplishments are: genetic analysis of heat tolerance in cotton; hydraulic lift to improve drought tolerance in crop plants; molecular mapping of heat tolerance genes in corn; exploration of plant defenses to aphids and whiteflies; and identification of stress induced gene products using enhancer gene traps. Data collected from the first ten years of the Consortium—1986–1995—show that Consortium funding has been successfully leveraged by researchers toward the acquisition of an additional $4,836,208 in research funding from other agencies, and that a total of 88 peer review scientific publications resulted from Consortium work funded during this period.

Question. How long has this work been under way and how much has been appropriated through the year 2001?

Answer. The work supported by this grant began in fiscal year 1986 and has been provided with appropriations of the following amounts: fiscal year 1986, $285,000; fiscal years 1987 through 1989, $385,000 per year; fiscal year 1990, $380,000; fiscal years 1991 through 1993, $400,000 per year; fiscal year 1994, $376,000; fiscal years 1995 through 2000, $338,000 per year; and fiscal year 2001, $368,188. A total of $5,792,188 has been appropriated since fiscal year 1986.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The source of matching funds is derived from the support from the five participating institutions in the form of support researchers, salaries, facilities, equipment maintenance, and administrative assistance. It is estimated that the amount of non-Federal supporting funds during fiscal years 1993–2000 is $100,000 per year.

Question. Where is this work being carried out?

Answer. Research on this grant is conducted at the five participating institutions in the laboratories and support laboratories of the principal investigators on each mini-grant project.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Southwest Consortium was initiated in 1986. Each year, additional and related objectives have been developed and the anticipated completion date for these is 2002. The original objectives of the project have successfully been met.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation provided.

Answer. Mini-grants are awarded competitively to support research that will lead to solutions of problems unique to agricultural production in the southwest. The mini-grant selection process is competitive with each proposal subjected to a rigorous review process that includes external scientific peer review and internal review by the Consortium Steering and Scientific Committees. A progress report is submitted for review by each funded mini-grant project prior to the award of second year funds. CSREES reviews the complete Southwest Consortium progress report on a yearly basis.

SOYBEAN CYST NEMATODE, MISSOURI

Question. Please provide a description of the research that has been funded under the Soybean Cyst Nematode, Missouri grant.

Answer. The research being funded by this grant is crucial to the development of effective management strategies to understand host parasite relationships of the pathosystems and each of its components. Work has dealt mainly with identifying Heterodera glycines-resistant genes and incorporating them into agronomically-superior cultivars. Basic studies elucidate the fundamental biology of the cyst nematode in regard to new management strategies. Applied work dealt with evaluating production systems and to new management strategies. This project was not awarded competitively but has undergone peer review at the university level and merit review at CSREES.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for the research?

Answer. The principal researcher believes that although this research is focused on the soybean cyst nematodes in Missouri, the problem is of regional and national significance. The soybean cyst nematode, Heterodera glycines is the most serious pest of soybean in the U.S. The problems continue to increase in the midwest where 12 states have yield reductions in soybean because of this nematode. Due to the nematodes ability to adapt to resistant varieties over time, new varieties are continually needed.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this research is managing soybean cyst nematode through the various management strategies including the development of new resistant soybean varieties. To date, several nematode resistant soybean lines have been or will be released. The need for breeding soybean lines to develop resistant varieties with a broad spectrum of resistance continues. More fundamental research involves the utilization of new molecular technologies to identify genes responsible for resistance. Other aspects of the work relates to field management strategies for these nematodes.

Question. How long has work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1979, $150,000; fiscal years 1980–1981, $250,000 per year; fiscal year 1982, $240,000; fiscal years 1983–1985, $300,000 per year; fiscal years 1986–1989, $285,000 per year; fiscal year 1990, $281,000; fiscal year 1991, $330,000; fiscal years 1992–1993, $359,000 per year; fiscal year 1994, $337,000; fiscal years 1995–1997, $303,000 per year; fiscal year 1998, $450,000, fiscal years 1999–2000, $475,000 per year; and fiscal year 2001, $598,680. A total of $7,503,680 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $105,012 state appropriations in 1991; $84,368 state appropriations in 1992; $168,017 state appropriations in 1993; $118,725 state appropriations in 1994; $33,498 in 1995 and 1996; $33,723 in state appropriations in 1997; $37,445 in state appropriations in 1998; and $201,994 in 1999 and $200,000 in 2000.

Question. Where is this work carried out?

Answer. This research is being conducted at the Missouri Agriculture Experiment Station and the University of Missouri.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Many objectives are being met, but genetic interaction of the soybean cyst nematode/soybean is extremely complex. The anticipated completion date of the continuing research is in 2004–2006.

Question. What was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last evaluation of this project was a merit review in January 1999 and the renewal project was evaluated in 2000. In summary, continued development of new management strategies for the soybean cyst nematode is extremely important. Progress continues with nematode resistance being released yearly as well as excellent progress in other management strategies. Certified seed of MPV437–NRR was made available to farmers in 1999. A new soybean variety, "Anand" was released in 2001. Another high yielding soybean strain, S96–1908 was developed that is resistant to all races of soybean cyst nematodes and is being evaluated in the uniform tests. More fundamental research involves the utilization of new molecular technologies to identify genes responsible for resistance. Seven genetic markers associated with loci controlling resistance to soybean cyst nematode were found in Peking, China, which may be useful in marker assisted selection for resistant lines. Other aspects of the work relates to field management strategies for these nematodes including effects of nutrient uptake on nematode development. A seven-year study of the effects of soybean cyst nematode on soybean growth and development was recently completed. It showed among other things that a grower's choice of tillage methods and date of planting are relatively unimportant in their strategy to control soybean cyst nematodes. Another study indicated that nitrogen accumulation and fixation are limited under high soybean cyst nematode infections.

STEEP III—WATER QUALITY IN PACIFIC NORTHWEST

Question. Please provide a description of the research that has been funded under the STEEP III—Water Quality in the Pacific Northwest grant.

Answer. The STEEP III study was established in 1996 as the third phase of the tri-state STEEP Program entitled, "Solutions to Environmental and Economic Problems" to meet the needs of farmers and ranchers in the Pacific Northwest in solving severe problems with soil erosion and water quality, while maintaining economically- and environmentally-sustainable agricultural production. An open call for research proposals is held by three cooperating states, Idaho, Oregon, and Washington. Awards are made competitively after both internal and external peer reviews within the states, and merit review by the agency. The project is in a new phase and is just known as STEEP because the STEEP III objectives have been completed.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to the research proposal, the soils of the Pacific Northwest wheat region are subject to severe wind and water erosion, which has taken a heavy toll of the topsoil in a little more than 100 years of farming. Due to the hilly terrain, water erosion has reduced potential soil productivity in the high rainfall areas of the region by about 50 percent. Wind erosion has reduced productivity on the sandy

soils in the lower rainfall areas. Also, off-site environmental costs of water erosion are large. Although many of these are difficult to measure, they include damage from sediment to recreational areas, roadways, and other areas which costs taxpayers millions of dollars annually. Wind erosion, which occurs mostly in the spring and fall, also can be costly and environmentally damaging to air quality and causes increasing concerns for human health and safety from blowing dusts. Water quality degradation is of increasing concern in the agricultural areas of this region, since sediment is a major pollutant of surface water runoff which may also carry potential chemical contaminants. The complex hydrology of the region's landscape has made it difficult to identify the sources of these chemicals in surface and ground waters. A new major emphasis has been the funding of direct seed research in combination with reduction in summer fallow and more complex crop rotations. Direct seed is synonymous with no till where tillage is eliminated or reduced to a very minimum. Consequently, soil and wind erosion are reduced significantly improving soil and water quality and contributing to salmon recovery.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The primary goals are: to obtain and integrate new technical/scientific information on soils, crop plants, pests, energy, and farm profitability into sustainable, management systems; to develop tools for assessing the impacts of farming practices on soil erosion and water quality; and to disseminate conservation technology to the farm.

The original STEEP and following STEEP II and STEEP III projects for erosion and water quality control, have provided growers a steady flow of information and technologies that have helped them meet economic, environmental, and resource conservation goals. Through the adoption of these technologies, the researchers believe that growers of wheat, barley, and other alternative crops have been able to reduce soil erosion by water and wind, improve water quality, and maintain or increase farm profitability. This has been accomplished through a tri-state, multi-disciplinary, multi-agency approach of basic and applied research, along with technology transfer and on-farm testing to assist growers with applying these research findings on their farms. The on-farm testing program has directly involved growers and stakeholders in the planning and conduct of the research and educational efforts—and has helped growers evaluate conservation options, such as residue management, to meet conservation compliance requirements.

STEEP programs have helped position farmers with new conservation technologies, such as direct seeding management systems, well in advance of deadlines to meet current and anticipated policy requirements. This preparation protects farmers against potential penalties and loss of government program benefits. The new emphasis on direct seeding has significantly reduced summer fallow through more annual cropping and through more emphasis on alternative crops.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1991, and the appropriations for fiscal years 1991–1993 were $980,000 per year; in fiscal year 1994, $921,000; in fiscal year 1995, $829,000; in fiscal years 1996–2000, $500,000 per year; and in fiscal year 2001, $498,900. A total of $7,688,900 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $938,812 state appropriations, $63,954 product sales, $156,656 industry, and $16,994 miscellaneous in 1991; $1,025,534 state appropriations, $75,795 product sales, $124,919 industry, and $88,696 miscellaneous in 1992; $962,921 state appropriations, $62,776 product sales, $177,109 industry, and $11,028 miscellaneous in 1993; $1,069,396 state appropriations, $46,582 product sales, $169,628 industry, and $22,697 miscellaneous in 1994; and $1,013,562 state appropriations, $31,314 industry, and $107,151 miscellaneous in 1995. In 1996, Washington received $231,724 state appropriations; Oregon passed Measure 5 which reduced revenues and imposed funding restrictions so they were unable to provide any non-Federal cost-sharing or matching funds; and Idaho contributed $81,525 state support, and $86,242 in estimated non-Federal grant support, for a total non-Federal contribution of $167,767. In 1997, Washington received $197,234 state appropriations; Oregon continues to have Measure 5 as law and continues to be unable to provide any non-Federal cost-sharing or matching funds; and Idaho contributed $27,235 state support and $24,525 in estimated non-Federal grant support for a total non-Federal contribution of $51,760. In 1998–2000, these same general levels of support have been continued with sources of funds from the Environmental Protection Agency, Washington Wheat Commission, and PM–10 Air Quality.

Question. Where is this work being carried out?

Answer. The work under STEEP III has been performed at laboratories and field research sites at the University of Idaho, Oregon State University, and Washington State University. Cooperative on-farm testing will be conducted in cooperation with growers on their fields in Idaho, Oregon, and Washington.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The STEEP II project was completed in 1995, and the results were compiled in a final, 5-year report in January 1997 showing that the original objectives have largely been met. The STEEP III project started in 1996 and continued through the year 2000 as a 5-year project. Four modified objectives were identified in the new STEEP program for 2000. The objectives are: (1) determine the impact of farming practices and systems on soil, water, and air quality; (2) develop new technologies and increase efficiency of inputs which improve profitability of conservation farming systems; (3) assess the profitability of conservation systems; and (4) accelerate grower evaluation and adaptation of profitable conservation farm systems.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's program manager annually reviews progress reports, proposes new research on the STEEP Program, and attends the annual meetings to assess progress. The program is evaluated within the states each year by three committees: grower, technical, and administrative. Annual progress is reported at an annual meeting and compiled into written reports. These reports and the meeting are reviewed annually. Grower and industry input is solicited at the annual meeting on research objectives and accomplishments. The most recent evaluation was made at the January 2000 annual meeting which highlighted direct-seeding technology. This highly successful meeting attracted many growers, scientists, and agricultural experts from the tri-state region. Another annual review and reporting session is scheduled for January 2001. Farmer surveys are also distributed at each annual meeting, and results are compiled to assess whether objectives are being successfully achieved.

SUSTAINABLE AGRICULTURE, CALIFORNIA

Question. Please provide a description of the research that has been funded under the Sustainable Agriculture, California grant.

Answer. This project aims to build upon and link across individual efforts to provide a more comprehensive picture of the potential impacts of ecologically-integrated farming systems and land management on environmental health, farm viability, and regional communities.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Central Coast of California is a global center of fresh fruit and vegetable production and innovative production and marketing methods. According to the research proposal, the project is needed to help the region respond to a new period of challenge arising from globalization of markets, environmental conservation needs, and the claims of Latino farm workers and small farmers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This project aims to develop economically-viable and environmentally-sound production systems for strawberries and vegetables, to enhance ecosystem health in multiple-use watersheds, and to assess the feasibility of alternative production and marketing strategies, including consumer education.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $255,000 and in fiscal year 2001 is $392,135. The total appropriation is $647,135.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds are shown in the project proposal, but the project entails a consortium approach involving several non-Federal partners, such as the Santa Cruz County Farm Bureau and regionally-based non-profit organizations which are likely to bring considerable in-kind contributions to the effort.

Question. Where is this work being carried out?

Answer. The work is being carried out by the Center for Agroecology and Sustainable Food Systems at the University of California-Santa Cruz in the Monterey Bay area of California.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date was May 1, 2001. The original objectives have not yet been completed.

Question. When was the last agency evaluation of this project? Provide a summary of the last agency evaluation conducted.

Answer. No evaluation has yet taken place since the project has been underway less than one year.

SUSTAINABLE AGRICULTURE, MICHIGAN

Question. Please provide a description of the research that has been funded under the Sustainable Agriculture, Michigan grant.

Answer. This project is intended to develop agricultural production systems that are highly productive and profitable and which provide high quality ecosystem services to local communities and to the environment. It examines how to achieve a high nutrient flow from soil to crops and animals, and back to soil, with low loss to ground and surface waters. The grant is allocated by the Michigan Agricultural Experiment Station to priority areas within the general area of sustainable agriculture. Grants are awarded based on research merit and proposal submission.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research.

Answer. The principal researcher believes there is a need to better understand the biological processes occurring in Michigan's high-nutrient-flow crop and animal systems. With high water tables, networks of lakes and slow-moving streams, and concern about environmental standards, field contamination by agricultural production materials is a high priority.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The objective of this research is the identification, quantification, and description of production ecology information to permit its use in a significant way in farm management decision making. Key areas addressed include soil carbon and nitrogen flows, soil nematode population management, and weed seed predation and seedbank management.

Accomplishments to date include the development of on-farm compost demonstration sites, collection of research data and computer software models on water table management, completion of initial research trials on rotational grazing at three sites in Michigan, widespread testing of cover crops in several crop rotation systems, and tests of the use of nematology community structure as a method of detecting difference among farming systems. Findings from this project have demonstrated that rotational grazing reduces production costs, and increases net profits, compared to traditional cow management. This project has also shown that composting is an effective way of stabilizing livestock waste, controlling odor, and improving nutrient composition for later land application. Cover crop development as an integrated tool is becoming quite advanced. Frost seeding of wheat with clover is increasingly used; approximately one-third of Michigan's wheat acreage, by some estimates, is overseeded. Results are being integrated into a series of practical publications partially supported by this grant. The first in the series, "Michigan Field Crop Ecology," received an American Society of Agronomy award in 1998 for excellence as an Extension publication. A second volume, on field crop pest ecology was completed in January 2000, and similar volumes for fruit and vegetable ecology are under development. New work on organic apple production is very timely, given producers' growing interest in this area.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1994 with an appropriation of $494,000; $445,000 were appropriated in fiscal years 1995 through 2000; and $444,021 in fiscal year 2001, bringing total appropriations to $3,608,021.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Matching funds were provided at the state level for $511,900 in fiscal year 1994, $372,319 for fiscal year 1995, and $359,679 in fiscal year 1996. Matching support was not reported in fiscal years 1997 through 2000.

Question. Where is this work being carried out?

Answer. This work is being carried out in Michigan at several locations by Michigan State University. Locations include the Kellogg Biological Station, the Upper Peninsula Experiment Station, and farms around the state.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original project, begun in 1994, was proposed through April of 1997. Its specific objectives were met, with additional objectives addressed in subsequent related proposals. The current project is scheduled to go through July 31, 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last agency evaluation conducted.

Answer. A formal evaluation of the Principal Investigator's program was concluded in 1997, commissioned by the C.S. Mott Foundation through an independent consultant. The project continues to have annual peer review. According to the Principal Investigator, the proposal has gone through the normal Michigan State University review process. First, all teams and collaborators of the project have met and reviewed the entire proposal with several suggestions and changes being incorporated. Second, research administrators in the fields of agronomy/soil science and entomology/pest management covering the major dimensions of the proposal have reviewed it for scientific appropriateness and accuracy as well as for overall balance and likelihood of achieving objectives. Their comments have been included as revisions to the proposal.

SUSTAINABLE AGRICULTURE SYSTEMS, NEBRASKA

Question. Please provide a description of the research that has been funded under the Sustainable Agriculture Systems program for Nebraska.

Answer. This project is aimed at integration of field crops, animal production, agroforestry, livestock waste management, and diversified enterprises to meet production, economic, and environmental quality goals.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Farmers and ranchers in Nebraska and throughout the Midwest face increasing difficulties in maintaining profitable operations that are sustainable under increased production costs and more stringent environmental regulations. They continue to seek alternative production systems, integration of crop and animal enterprises, value-added products, including those from woody perennials, and new marketing approaches to secure more of the food dollar. Work on crop residue utilization is highly important to assess the loss of erosion mitigation when grazing occurs as well as the benefits of winter forage to production of lean beef. Erosion is still a major problem with monoculture cropping, and work with contour strips, residue management, and animal grazing is essential to provide good recommendations to farmers for how to manage fragile lands.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This project has addressed a number of questions related to the management of integrated crop and livestock enterprises. The work on composting has answered questions about the costs of composting, improved the nutrient content of compost, and evaluated different spreading technologies. Because elevated levels of nitrate have been found underneath the composting sites, studies are underway to compare different crops and shrubs as scavengers of nitrogen. The work on contour strip cropping, residue management, no-till planting, and cover crops has demonstrated ways to reduce erosion on highly erodible land. Studies of grazing on corn residues under different tillage and management systems are determining the forage value of residue and the impact of grazing on subsequent crop production. Plots that have been managed with organic methods for six years are providing local experience in this topic of increasing grower interest.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. This project began in fiscal year 1992, with an appropriation of $70,000; subsequent appropriations are as follows: $70,000 in fiscal year 1993; $66,000 in fiscal year 1994; $59,000 in fiscal years 1995 through 2001; and $58,870 in fiscal year 2001. Total appropriations to date are $618,870.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Matching funds provided for this research include state funds in the amount of $25,313 for fiscal year 1992; $26,384 for fiscal year 1993; $27,306 for fis-

cal year 1994; $36,091 in fiscal year 1995; and $24,267 in fiscal year 1996. No matching funds were reported in fiscal years 1997 through 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted by the University of Nebraska at several locations in Nebraska, with the major part of the project at the Agricultural Research and Development Center near Mead, Nebraska.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original project proposed work through March of 1994. The current project proposes work addressing additional related objectives through June 30, 2001. It is expected that current objectives of the project will be met by this time period.

Question. When was the last agency evaluation of this project? Provide a summary of the last agency evaluation conducted.

Answer. There has not been a formal evaluation of this project, but progress reports have been submitted to the agency and reviewed by our scientific staff. The grant was awarded competitively within the University of Nebraska, and the integrated farm project has been reviewed annually for technical merit and progress toward goals by the internal review process of the university.

SUSTAINABLE AND NATURAL RESOURCES, PENNSYLVANIA

Question. Please provide a description of the research that has been funded under the Sustainable Agriculture and Natural Resources, Pennsylvania project?

Answer. This project studies the cycling of nutrients in soil and crops with special emphasis on the development of indices for measurement of soil health. Specific goals are to identify indicators of a soil ecosystem that maintains a high level of active soil organic matter, and to develop nutrient and carbon budgets for managing on-farm cropping systems.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Degradation of soil health/quality is a most serious problem for agriculture both in the mid-Atlantic region and throughout the nation. State governments, both regionally and nationally, are attempting to address the issue of soil and water degradation in cropping systems and in intensive animal agriculture. Traditional soil test results are not providing the needed answers for effective nutrient management.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to understand the cycling of nutrients and to use that knowledge to develop practical indicators of soil quality and health. If farmers are to manage their farm lands properly, indicators of soil quality and health must be developed that can be used by agricultural producers and consultants. Efforts under this project have been devoted to this goal with significant accomplishments to date. Management practices have been found to affect soil microbiology, and the fate of nutrients from crop residues and legume cover crops is being elucidated. A significant indicator of soil quality has been identified: measurement of the decomposition of filter paper has been shown to be an effective indicator of plant residue decomposition, which in turn has been shown to be highly correlated to nitrogen mineralization and also shows promise as an indicator of soil biological activity. Experiments are underway to refine this approach. Results on microbial biomass work have been submitted for scientific publication by scientists at Rodale, and a Masters of Science thesis at the Pennsylvania State University—PSU—evaluated the ability of different indicators of soil quality to distinguish soil management histories.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported under this grant began in fiscal year 1993. The appropriation for fiscal year 1993 was $100,000; $94,000 per year in fiscal years 1994 through 1998; $95,000 per year in fiscal years 1999 and 2000; and $99,780 in fiscal year 2001. A total of $859,780 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. A total of $369,574 in matching support from university, state, and private industry sources was provided in fiscal year 1997. No matching support was reported in fiscal years 1998 through 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted by the Pennsylvania State University with cooperators throughout the state, at the Hunter Rotation Experiment at PSU's R.E. Larson Research Center near Rock Springs, Pennsylvania, at the Rodale Institute Research Center near Kutztown, Pennsylvania, and on farms around the state.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project has met the specific objectives set forth in the original project which began in 1993 with an ending date in 1995. The continuing project addresses additional objectives related to the overall goal. The ending date for the current project objectives is June 30, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last agency evaluation conducted.

Answer. There has not been a formal evaluation of this project, but progress reports have been submitted to the agency and reviewed by our scientific staff. The project undergoes regular internal evaluation and assessment as part of PSU's major effort in soil quality and nutrient management research.

SUSTAINABLE BEEF SUPPLY, MONTANA

Question. Please provide a description of the work that has been funded under Sustainable Beef Supply, Montana grant.

Answer. The Sustainable Beef Supply, Montana, project develops a system to provide information feedback among the various segments of the beef industry. This program is a cooperative effort between the Montana Stockgrowers Association and Montana State University. A systems approach was adopted to allow for tracking of weaned, feeder calves from ranches in Montana to feedlots in other states and eventually to the packing plant. Information collected throughout the production chain is to be shared among all owners of the cattle.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The beef industry is becoming more focused on consumers, and specific quality and consistency targets are being established in all segments of the industry. In order to meet customer and consumer expectations for safe beef and return additional revenue to cattle producers, a systems network must be developed to ensure that a high quality and consistent product is being produced. Central to this networking approach is the exchange of information from the producer to the end user, customer, or consumer. This systems approach for information transfer is the foundation of the Montana Beef Network.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This project has three primary objectives: develop and provide educational programs aimed at meeting beef quality assurance standards, production, and marketing goals; certify feeder calves that have met defined health management protocols; and provide information feedback from the feedlot and packing plant to the cow-calf producers showing if the feeder calves met industry requirements for quality, consistency, and red meat yield. The funding was used to develop and distribute 1,500 training manuals and present over 45 educational programs on the Beef Quality Assurance. County agents were trained to provide this educational training within their counties. Approximately 20,000 calves have been certified in 1999 and 2000. A state-wide audit of ranches has been initiated to determine value-added production and management practices. A research project was completed involving 12 ranches to determine if a standardized weaning protocol, which includes vaccinations and nutrition, could reduce morbidity of calves after they entered the feedlot. Results suggest a possible benefit in terms of reduced illness after the calves reach the feedlot. One-day short courses were conducted in Billings and Lewiston, Montana, to present issues pertinent to the beef industry. Ten interactive-television short courses were presented in 2000 that focused on carcass evaluation, genetic management, backgrounding calves, nutrition, drought management, and marketing.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The program supported by this grant began in fiscal year 1999. The appropriations were $500,000 in fiscal year 1999; $637,500 for fiscal year 2000; and $742,363 for fiscal year 2001. The total appropriation is $1,879,863.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Montana Department of Agriculture contributed $15,000, and the Montana Stockgrowers Association contributed $5,000 in fiscal year 2000. The Montana beef producers provided $10,000 in fiscal year 2001.

Question. Where is this work being carried out?

Answer. This project is being conducted at Montana State University and on cooperating Montana ranches.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. It is anticipated that it will take five years of funding to fully achieve the objectives of this project. Progress to date has been very encouraging. Approximately 1,300 producers have received beef quality assurance training, and 38,000 calves have been certified. The goal is to increase the certification effort to include 75,000 feeder calves each year.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer-reviewed by faculty at Montana State University and also by Montana cattle producers prior to submission. The proposals were merit reviewed by the agency prior to funding.

SUSTAINABLE PEST MANAGEMENT FOR DRYLAND WHEAT, MONTANA

Question. Please provide a description of the research that has been funded under the Sustainable Pest Management for Dryland Wheat, Montana grant.

Answer. Montana State University researchers are studying the influence of four cropping sequences and two tillage systems on insects, weeds, plant pathogens, nutrient management, physical and biological properties of soil, economic profitability, and environmental benefits. The research is being conducted on large experimental blocks in the three different dryland farming regions of northern, central, and eastern Montana. Each site differs climatologically and agronomically from one another yet represents a significant production area within the state.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This project addresses pest management issues under different cropping sequences and tillage practices utilized in the Northern Great Plains for dryland wheat production. The wheat-fallow-wheat system used by many farmers in the region favors the build up of many pests. Dollar losses due to insects, competitive weeds, and plant pathogens in dryland wheat production in Montana alone are staggering. For example, annual losses attributed to wheat stem sawfly exceeds $25 million; wild oat infestations causes an estimated $50 million in harvest losses and management costs; and wheat streak mosaic has a monetary loss of $37.5 million. These and other pests also increase reliance on pesticides for crop protection which impacts environmental quality, increases production costs, and causes secondary pest outbreaks and resistance. The agronomic, environmental, and economical benefits of diversified crop rotations are numerous, but these benefits are largely unknown or not documented in dryland wheat production. This multi-disciplinary project can result in significantly reducing the economic impact of agriculturally-important pests by improving soil health, reducing production costs, and improving production efficiency.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of this research were to study the influence of cropping sequences, tillage systems, and different levels of inputs on dryland wheat production, pests, nutrient management, physical and biological properties of soil, economic profitability, and environmental benefits. The third cropping season was completed at the northcentral site and the second cropping season was completed at the central location in 2000. Data collection continues at these sites, but results and the influences of cropping sequences, tillage systems, and inputs into the systems have not been determined nor translated into useful strategies articulated for use by growers. Arthropod densities have increased from 1998 to 2000. Significantly more pests and beneficial arthropods were captured in spring wheat following fallow than other rotations. These arthropod data suggest that when pest numbers are elevated in particular crops, including spring wheat, mustard, sunflower, and Conservation Reserve Program land, beneficial numbers respond in kind. There was no detectable wheat streak mosaic virus, and there was no evidence of foliar fungal diseases in any of the wheat plots. The influence of crop rotation was not significant for Fusarium crown rot infection of spring wheat in 2000.

The main objectives at the third research site in northeast Montana are determining the effects of forages on wheat yields, intensively crop for a more efficient use of water, and determine the value of feeding high quality forage in late summer. The entire 25-acre site was cropped to spring wheat in 1999 and lentils in 2000. Rotations include traditional wheat-fallow, wheat hay barley, wheat-hay barley-pea, wheat-sorghum sudan, and alfalfa. Useful results have not been reported at this stage in the research program.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This work supported by this grant began in fiscal year 1997 and the appropriation for fiscal year 1997 was $200,000; for fiscal years 1998 and 1999, $400,000 per year; for fiscal year 2000, $425,000; and for fiscal year 2001, $460,984. A total of $1,885,984 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds of $42,000, $80,000, and $80,000 from the Montana Wheat and Barley Committee were provided for project support during 1997, 1998, and 1999, respectively. The Montana Agricultural Experiment Station provided $25,000 in state support. Private industries provided $5,000 during 1999. Non-Federal funds of $85,335 from the Montana Wheat and Barley Committee were provided for project support during 2000. The Montana Agricultural Experiment Station provided $35,000 in state support. Private industries provided $3,500 during 2000.

Question. Where is the work being carried out?

Answer. Research is being conducted in three distinct dryland areas of Montana in the north, central, and northeast located on producer-owned land. Each field site is within 45 miles of a Montana State University Agriculture Experiment Station research center.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initially proposed for a duration of three years. However, this project is envisioned as a long term project and will require a total of 12 years to see it to completion.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Yearly progress reports will be used to track the effectiveness of the program of research. Assessment of the precision of biological control organisms and estimates of profitability, marketability, and risk will be used to assess progress. An onsite visit and review is anticipated during the growing season of 2001.

SWINE WASTE TREATMENT, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Swine Waste Management, North Carolina grant.

Answer. Research funded through the current grant continues to support research, development, and demonstration of innovative technology for swine waste management. Primary focus has been on various alternatives or modifications to traditional lagoon/spray-field technology. Specifically, this particular funded project is focusing on determining the technical and economic feasibility of utilizing a combination of technologies—systems approach—involving solids separation, aeration, and constructed wetlands, as well as value-added processing of generated biosolids, to treat swine manure.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this project?

Answer. Nationally, regionally, and locally, discussions and efforts regarding animal waste management practices and the impact of animal agriculture on the environment are at the forefront of issues facing the livestock industry, pork production in particular. Soil and water quality issues associated with this industry have been identified to be: nutrient loading and fate of nitrogen, phosphorus, and metals—copper and zinc; and fate of pathogenic bacteria in the manure effluent and air emissions from animal production facilities. Air quality issues identified include emissions of ammonia nitrogen, greenhouse gases, dust, and odor. The attention directed to this subject area has resulted in research, development, and demonstration efforts by academic institutions, the private sector, as well as the livestock industry. The need for this project is further illustrated by the proposed Concentrated Animal Feeding Operations rule that was signed by the U.S. Environmental Protection Agency's Administrator on December 15, 2000. The rule proposes changes to the size

of operation requiring permitting and effluent guidelines under the National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations.

In North Carolina, where livestock and poultry production account for approximately $5 billion in farm gate income annually, the sustainability of this industry has enormous economic implications. Several other states and local regions in which animal production agriculture contributes to the economy are facing the same concerns. As such, this research project will have a local, state, and national impact.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The specific goals for this project include: determine the effectiveness of the system at reducing nitrogen, phosphorus, metals—copper and zinc—ammonia volatilization, pathogenic microorganisms, and odor in the treated wastewater; determine the effectiveness of utilizing specialized waste processing equipment including a pelletizer, fluidized bed dryer, and flash dehydrator for blending and processing biosolids removed from the system into value-added products; and determine the economic feasibility of the system to include capital and operational costs.

The original goal of this project was to evaluate a full-scale, on-farm constructed wetland system for swine waste which was supported by very promising reports of a five-year study of a prototype system on an actual swine farm. This goal has subsequently been re-enforced by the North Carolina Governor's request to develop alternatives to lagoons for swine waste management and the North Carolina Attorney General—Smithfield Foods, Inc. Agreement is to provide funding to implement and evaluate advanced technologies for swine waste management. The constructed waste management system described in the proposal has been installed, and a Ribbon Cutting ceremony was held to publicize startup of this full-scale system.

In addition to the system described in the proposal, a dissolved air flotation unit has been added to provide greater reduction of solids, oxygen demand, and organics in the influent to the wetland system. This unit may also provide some oxidation of the nitrogen to nitrate to provide higher levels of denitrification in the wetland system. Overall, the addition of this dissolved air flotation unit should provide the performance of the wetland system to potentially reduce its size and thus the footprint for the overall waste treatment system. In addition, arrangements have been made with a local vermicomposting facility to take the solids removed by the incline screen and the dissolved air flotation unit and process them into a marketable vermicompost.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1997 and the appropriation for fiscal year 1997 was $215,000; fiscal year 1998 was $300,00; fiscal years 1999–2000 was $500,000 per year; and fiscal year 2001 is $498,900. A total of $2,013,900 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This Federally-funded project has helped leverage funds from the state and private sector. From state funds for 1998, $25,000; 1999, for $1,098,00; and for 2000, $0. From industry or commodity sources for 1998, $242,000; for 1999 $308,000; and for 2000 $1,450,000.

Question. Where is this work being carried out?

Answer. This work is being conducted at North Carolina State University in Raleigh, North Carolina. The commercial site demonstration is located in Onslow County, North Carolina.

Question. What was the anticipated date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The current project term dates are July 1, 2000, to June 30, 2003. Based on progress to date, it is anticipated that project objectives will be completed by the June 30, 2003 date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES conducted an evaluation of the progress of this work during January 2001. The project has made significant progress towards meeting the original goals.

This project is effectively integrated with the other animal waste management efforts at North Carolina State University, particularly those efforts of the Animal and Poultry Waste Laboratory. The long term viability of the state's swine industry will be dependent upon waste management technologies that are documented to address water and air quality concerns. This project is coordinated with the three prin-

cipal areas being addressed by the College of Agriculture and Life Sciences at North Carolina State University. The first is development and performance verification and demonstration of alternative animal waste treatment technologies. The second is nutritional modification of swine diets such that lower concentrations of nutrients are excreted by the animal. The third is identification and quantification of the environmental risks associated with existing lagoon/sprayfield techonolgy. Based on the work of over 50 projects and nearly two dozen different categories of technology, several promising technologies have been identified. They include covered lagoons, upflow biofiltration system, sequencing batch reactor process, constructed wetlands, and high temperature anaerobic digestion. This project has produced significant progress on the constructed wetlands research.

Efforts have been made to identify processes by which by-products of the alternative technology may be developed which have economic value. Examples of such work include: capturing biogas for energy; and use of nutrients in the processed waste effluent to grow plant, vegetable, and fish products. Diet related research has shown promise to reduce not only nutrients excreted but to also help control odor.

TECHNOLOGY DEVELOPMENT OF RENEWABLE RESOURCES, MISSOURI

Question. Please provide a description of the research that has been funded under the Technology Development of Renewable Resources, Missouri grant.

Answer. This is a new project thus a precise description of the research to be conducted is not currently available. The general focus however is genetic manipulations of soybeans for engineering applications.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. At this writing, a proposal has not been received. The grantee is conducting a thorough literature review and will submit a proposal in conjunction with the outcomes of the literature review. The requested date for proposal submission is March 31, 2001.

Question. What was the original goal of this research and what has been accomplished to date.

Answer. The original goal is to determine if soybeans can be altered to produce oils for engineering applications. The project has not begun, thus we are unable to cite any accomplishments.

Question. How long has the project been under way, and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. Other than a literature review, which is ongoing, the project has not begun. The total fiscal award, and the fiscal year 2001 award are identical $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. The source and amount of non-Federal funds has not been disclosed as the grantee is still working on the original proposal.

Question. Where is the work being carried out.

Answer. The project will be conducted in and around Rolla, Missouri.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion dates of additional or related projects?

Answer. The work has not begun thus no objectives have been met. The grantee will likely structure their original investigative work over a two year time span.

Question. When was the last agency evaluation of this project. Provide a summary of the evaluation conducted.

Answer. The agency has not conducted an evaluation of this project as we are awaiting the original proposal.

TILLAGE, SILVICULTURE, AND WASTE MANAGEMENT, LOUISIANA

Question. Please provide a description of the research that has been funded under the Tillage, Silviculture, and Waste Management Research, Louisiana grant.

Answer. This research has six components: Rice and Cotton Tillage, Bald Cypress and Water Tupelo Silviculture, and Dairy and Poultry Waste Management. More specifically, the Rice Scientists are looking for ways to improve stand establishment; the Cotton Scientists are focusing on the use of tillage systems to combat harmful insect populations; the Waste Management Scientists are quantifying the environmental and economic effectiveness of approved dairy and poultry waste disposal systems; and the Silviculturists are conducting a problem analysis on factors affecting Bald Cypress and Water

Tupelo regeneration. The project is annually subjected to the university's merit review process.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researchers hypothesize that the crops, forests, and waste issues addressed by this project extend beyond the state borders; thus, this research has, at a minimum, multi-state to regional application.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals were to: improve conservation tillage in rice and cotton farming; determine the effectiveness of no-discharge dairy waste treatment facilities; determine acceptable land treatment levels for poultry waste disposal; and to evaluate wetland forest regeneration processes. All components of the project have established research studies and are monitoring progress. For fiscal year 1998, the silviculture component was placed on hold and a sweet potato project was added. This decision was prompted by a staffing change in the Department of Forestry and Wildlife. Prior to this decision, an annotated bibliography of Bald Cypress Silviculture was completed; and the responsible scientists had begun work on Water Tupelo regeneration.

Question. How long has the project been underway, and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. The work began in fiscal year 1994. The appropriation for fiscal year 1994 was $235,000. For fiscal years 1995–2000, the appropriation was $212,000, and for fiscal year 2001 is $211,534. A total of $1,718,534 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. State funding in support of these areas of research exceeds $750,000 annually.

Question. Where is the work being carried out?

Answer. Investigations are being conducted on the main campus at Louisiana State University as well as the Experiment Stations at Calhoun, Crowley, Chase, Winnsboro, St. Joseph, and Washington Parishes, Louisiana.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related projects?

Answer. The original work was scheduled for completion in 1999. Early term objectives have been met. The added experiments have closing dates ranging from 1999–2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted?

Answer. The last field evaluation was completed on December 12, 1995. The evaluation summary complimented the scientists on the interdisciplinary components associated with this project, along with their investigative procedures, report writing, and external networking.

TOMATO WILT VIRUS, GEORGIA

Question. Please provide a description of the research that has been funded under the Tomato Wilt Virus, Georgia grant.

Answer. This project supports research to help in the reduction of major crop losses in the southeastern U.S. due to Tomato Spotted Wilt Disease. Research focuses on vector biology and the virus transmitted by the vector.

Question. According to this research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. Tomato Wilt Virus has become a major yield-limiting constraint in a number of very important food crops. This is a world-wide problem, but in the last ten years, has spread invasively throughout the southeastern states. Since this virus was first observed in Georgia in 1986, it has caused over $100 million in crop loss in Georgia alone. The wide host range of the virus and its vector makes this a disease that is difficult to manage. The new strategies to manage this virus in Georgia will be applicable to all states where it occurs.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The primary goal of this research is to reduce losses in the major crops grown in the southwest due to spotted wilt. This primary goal has sub-goals of identifying the sources of virus and vectors, determining the dynamics of the thrip species that transmits the virus, elucidating how the virus is acquired by thrips to identify possible genes to enhance virus resistance in plants, and adapting to crops in the southeast the Risk Assessment Index for spotted wilt that is currently in implementation and refinement at the University of Georgia for peanut.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This grant began in 1999 and has been supported at the level of $200,000 per year in fiscal years 1999 and 2000 and $249,450 in fiscal year 2001. A total of $649,450 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant are $84,736 in fiscal year 1999.

Question. Where is this work being carried out?

Answer. Research is being carried out at the University of Georgia and The Coastal Plain Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives have not been met since this is a complex research area. The anticipated completion date for the continuing research is the end of fiscal year 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project has undergone peer review at the University level and an agency merit review in January 2000. In summary, some progress has been made on all objectives of this research. Some progress has been made in understanding the relationship of cellular receptor proteins in the guts of the vector. This will aid in the identification, characterization, and eventually cloning of these genes that then could be modified against the virus. Progress was also made in investigating the source of inoculum and seasonal dynamics of the vector. This included identification of several weed species that are alternative virus hosts. The Risk Assessment Index for management of spotted wilt disease was used to evaluate peanut cultivars and determine how they fit better into management of the virus on peanut.

TROPICAL AQUACULTURE, FLORIDA

Question. Please provide a description of the research that has been funded under the Tropical Aquaculture, Florida grant.

Answer. The research is focused on increasing the production efficiency of tropical ornamental fish culture, handling, and transportation techniques.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. The principal researcher indicates that the ornamental fish industry is unique and important to the local economy where 69 percent of the total U.S. production of ornamental fish occurs in Hillsborough County, and 95 percent of the total production of ornamental fish is in southern Florida. At a national level, the U.S. imports 60–70 percent of the ornamental fish sold that results in a significant trade deficit that can be reduced by increased domestic production.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research under this grant is to improve culture and transportation techniques for the commercial tropical aquaculture industry in Florida. Accomplishments to date include progress on fulfilling the original research study objectives and formation of multidisciplinary research teams that are leading the various research studies.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000. The appropriation for fiscal year 2000 was $170,000 and for fiscal year 2001 is $197,564. The total appropriation for this project is $367,564.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. For fiscal year 2000, state appropriations supported the salaries of principal investigators and the use of state-owned facilities to conduct research. The university estimates that significant non-Federal funding will be provided in fiscal year 2001 primarily from state sources to cover salaries of the principal investigators and operating expenses for the laboratory. As the program develops, additional non-Federal funding is expected.

Question. Where is this work being carried out?

Answer. Research is primarily conducted at the University of Florida's Tropical Aquaculture Laboratory located in Ruskin, Florida, in addition to some work at the main campus in Gainesville, Florida.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is fiscal year 2001. Work is ongoing to complete the original objectives in fiscal year 2001. The anticipated completion date of additional objectives is fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency has requested that the principal investigators submit an annual accomplishment report along with the fiscal year 2001 grant proposal. This report will be evaluated in terms of progress and accomplishments related to the original objectives. The 2001 CSREES review will be completed within three weeks of submission of the fiscal year 2001 proposal. The researchers will be requested to develop the research proposal consistent with the National Science and Technology Council's Strategic Plan for Aquaculture Research and Development as in the past.

TROPICAL AND SUBTROPICAL RESEARCH

Question. Please provide a description of the research that has been funded under the Tropical and Subtropical Research program grant.

Answer. Tropical and Subtropical Research program is operating in coordination with the Tropical and Subtropical Research Caribbean and the Tropical and Subtropical Research Pacific Administrative Groups. State Agricultural Experiment Stations that are members of the Caribbean group are Florida, Puerto Rico, and the Virgin Islands; members of the Pacific group are Hawaii and Guam.

Non-member institutional interests are represented by the Executive Director of the Southern Region Agricultural Experiment Station Directors, who is a member of the Caribbean group, and the Executive Director of the Western Region Agricultural Experiment Station Directors, who is a member of the Pacific group. The Agricultural Research Service—ARS—also has representation on the two groups, as does the CSREES scientist who manages the Tropical and Subtropical Research grant program.

Funds for the program are divided equally between the two Basin Administrative Groups. The research objective of the program developed by the Administrative Group is to improve the agricultural productivity of many of the subtropical and tropical parts of the U.S. Special research grants have been awarded for research on controlling insect, disease and weed pests of crops; increasing the production and quality of tropical fruits, vegetables, and agronomic crops; promoting increased beef production through development of superior pastures; detection of heartwater disease of cattle and the influence of heat stress on dairy cattle reproduction; better use of land and water resources; developing computer models for efficient crop production systems and animal feeding systems; developing computer models for land-use decisions; using biotechnology methodologies for improving plant resistance to viral and bacterial diseases; using biotechnology to develop non-chemical, or biological, strategies for controlling insect pests; and potential for growing new speciality crops.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes there is a need for the Tropical and Subtropical Research program to provide research-generated knowledge that enables informed choices in the responsible use of natural resources, facilitates the health and well being of American citizens through improved food safety and nutrition, provides frontline protection for the rest of the nation's farms and ranches from serious plant and animal diseases and pests, and enhances the ability of U.S. farmers to produce crops efficiently and economically and/or to introduce new crops and agricultural products with export potential to gain market share abroad. On a regional basis, the Tropical and Subtropical Research program addresses the unique challenges of practicing tropical agriculture, that is presence of pests year-round, heat stress, post-harvest processing to meet regulatory requirements for export, etc. The local need of Americans living in tropical regions of the nation for Tropical and Subtropical Research knowledge-based products is to design and implement sustainable agricultural development within fragile tropical agroecosystems—particularly on tropical islands—and to develop new crops and niche markets.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to increase the production and quality of tropical crops; control pests and diseases of plants and animals; promote increased beef production; and conserve land and water resources. Grants have supported research on control strategies for Melon thrips; the biochemical nature of resistance to rust in nutsedge; development of bioherbicides for nutsedges; development of tomato cultivars with resistance to the spotted wilt virus; development of pheromones for monitoring and controlling the citrus root weevil; reducing the effects of heat stress in dairy cattle; development of a decision support system for vegetable production; finding cucurbits with resistance to silverleaf; developing a computer program for optimal supplementation strategies for beef and dairy cattle on tropical pastures; characterizing new strains of citrus tristeza virus in the Caribbean basin; determining the economic threshold for the citrus leaf miner on limes; using viral replicase genes to engineer rapid detection methods for geminiviruses; developing makers of bacterial spot resistance genes in tomato; breeding snap and kidney beans for resistance to golden mosaic, virus, and for heat tolerance; searching for resistance to papaya bunchy top disease; developing weed control for yam production; and bioengineering ringspot virus resistance in papaya.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The operation of the Tropical and Subtropical Research program was transferred from the Agricultural Research Service to the Cooperative State Research, Education and Extension Service, with funding being first provided in fiscal year 1983. Funds were appropriated in the amount of $2,980,000 per year in fiscal years 1983 and 1984; fiscal year 1985, $3,250,000; fiscal years 1986 through 1988, $3,091,000 each year; $3,341,000 in fiscal year 1989; fiscal year 1990, $3,299,000; fiscal years 1991–1993, $3,320,000 per year; $3,121,000 in fiscal year 1994; $2,809,000 per year in fiscal years 1995–1996; $2,724,000 per year in fiscal years 1997 through 2000; and $3,853,504 in fiscal year 2001. A total of $58,571,504 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. For fiscal year 1997, more than $1.0 million of non-Federal were provided to the Tropical and Subtropical Research program from state appropriations; $856,000 for 1998; $595,000 for 1999; and $850,000 for 2000. These state funds were in the form of faculty salary time commitments and indirect costs covered by the institutions.

Question. Where is this work being carried out?

Answer. This research is being conducted in Florida, Puerto Rico, Virgin Islands, Hawaii, and Guam. Work is also being done in other Pacific and Caribbean countries through agreements between institutions but not using Tropical and Subtropical Research grant funds.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. Research on tropical crop and animal agriculture is to increase productivity net profits, decrease harmful environmental impacts, conserve water, and natural resources. Objectives for some projects have been completed, and new objectives addressing new issues are being developed in this ongoing project.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The projects that are funded by the Tropical and Subtropical Research Special Research Grant have been peer reviewed by panels of scientists in the U.S. to assure that good science is undertaken. Also, as part of the grant renewal process, progress reports are reviewed by the two Administrative Groups and by the grant manager at the national level. Workshops in which research results and their application for agricultural production are developed are conducted every two years. Research papers are published in the appropriate regional, national, and international forums available.

The development in 1995 of the Strategic Plan for Tropical and Subtropical Research provided a mechanism to define priorities, examine program direction, and recommend operational changes. One of the principal points considered was to bring the Caribbean and Pacific Basin components closer and better coordinated. Each sub project is peer reviewed annually at the initiating institution, by the Tropical and Subtropical Research panel and by CSREES National Program Leaders.

TURKEY CORONAVIRUS, INDIANA

Question. Please provide a description of the research that has been funded under the Turkey Coronavirus, Indiana grant.

Answer. The objectives of the research are to: (1) develop enzyme-linked immunosorbent assays for detecting antibody to turkey coronavirus and turkey coronavirus antigen in turkey flocks; (2) elucidate immune responses in turkey poults infected with turkey coronavirus; and (3) determine which immunity, humoral, and/or cellular, will provide the most effective protection for turkey poults against turkey coronavirus infection.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This enteric disease of young turkey poults, called turkey poult enteritis or poult enteritis mortality syndrome, has contributed to significant economic losses by producers in Indiana, North Carolina, South Carolina, Virginia and other states. The cost to the industry is in the millions. Currently, no effective medication or vaccination is available for control and prevention of the disease. Although turkey poults that recover from the coronaviral enteritis may develop long-term immunity, little is known about the specific immunity. The proposed research will lead to further study on the understanding of immunological interaction between turkey poults and individual turkey coronaviral proteins and subsequent development of recombinant or a deoxyribonucleic acid vaccine for effective prevention of the disease. The enzyme-linked immunosorbent assays that have been developed in this research will provide efficient tools for diagnosis and control of turkey poult enteritis.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research was to develop enzyme-linked immunosorbent assays for monitoring antibody to turkey coronavirus and turkey coronavirus antigen in turkey flocks during acute outbreaks or recovery and in routine health monitoring and to develop effective vaccines to protect turkey poults against turkey coronavirus infection.

The investigators' laboratories have successfully propagated turkey coronavirus from intestines of infected turkey poults in 22-day-old turkey embryos, purified turkey coronavirus from the embryo intestines, and have demonstrated an acute enteritis with decreased body weight gain in 7 or 10-day-old turkey poults by oral inoculation of the purified turkey coronavirus. This establishes an infection model to study immunology, pathogenicity, and pathogenesis of turkey coronavirus.

The research team has been successful in adapting a commercially-available ELISA test used for infectious bronchitis virus for use in detecting antibodies against the coronavirus causing the poult enteritis syndrome. They have also developed a second test system which allows for measurement of cellular immunity of turkeys exposed to this virus. The combination of these two tests will permit a much more informative study of the immune response of turkey poults exposed to the turkey coronavirus.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999. The appropriation for fiscal years 1999 and 2000 was $200,000 per year, and for fiscal year 2001 is $199,560. A total of $599,560 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds expended on this project in fiscal year 1999 were $72,311.06, including $25,200 from state funds and $47,111.06 from a private commodity group, and $245,483.67, in fiscal year 2000 including both private and state funds.

Question. Where is this work being carried out?

Answer. Research is being conducted at Purdue University in the Department of Veterinary Pathobiology and the Animal Disease Diagnostic Laboratory.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is spring 2002. At present the project is on target to meet its stated objectives in the designated time period.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was initially funded in July 1999, and no evaluation has been performed. A review is tentatively scheduled to be conducted during summer 2001.

VALUE-ADDED PRODUCT DEVELOPMENT FROM AGRICULTURAL RESOURCES, MONTANA

Question. Please provide a description of the research that has been funded under the Value-Added Product Development From Agricultural Resources, Montana grant.

Answer. Carbohydrates, the most abundant and commercially-available renewable chemicals from agriculture resources, provide the starting point for the research to be carried out at the University of Montana. The goal of this research is to develop wide-range value-added biodegradable polymer materials with different properties, from abundant grain and potato starches, wood carbohydrates, and waste milk sugar from the cheese industry. Target applications for these polymers include biodegradable packaging materials, industrial use materials, consumer products, and medically-useful products. The validity of the basic technology to produce these polymers is established, but the long-range goals of the project require improvement of the technology to make it practical and commercially attractive. Additionally, at this stage of the research, it is very important to explore materials applications that coincide with process technology development.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This project is centered around a growing national need to utilize renewable crop materials as resources for chemicals that are environmentally favorable and useful for consumer and industrial products. Biodegradable polymer materials are gaining favor globally because they address the need to start limiting the amounts of non-biodegradable solid materials that end up in landfills. These novel polymers have an added advantage in that the materials produced are both biodegradable and derived in significant part from renewable agriculture sources, thus adding value.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new grant in fiscal year 2001. Previous studies have established the validity of chemically-modifying carbohydrates into resins that can be extruded or made into films for use in packaging and other consumer products.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $331,270.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since this is a new grant, and a proposal has not yet been received, the source and amount of non-Federal funds for this research is unknown.

Question. Where is this work being carried out?

Answer. This work will be carried out at the University of Montana.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. This project is expected to be completed in three years.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Since this is a new grant, no evaluation has been conducted.

VALUE-ADDED PRODUCTS, ILLINOIS

Question. Please provide a description of the research that has been funded under the Value-Added Products, Illinois grant.

Answer. The objective of this project is to develop a breeding and production research program aimed at introducing alternative crops, such as milkweed, to the midwest region. The first priority will be to develop protocols to generate sufficient supplies of milkweed floss and seed for the development of value-added products. Long-term objectives will be focused on improving yields, developing auto-fertile varieties, and developing machinery for milkweed harvest.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this research?

Answer. Alternative crops will allow growers to disrupt life cycles of corn rootworms and to minimize their risks associated with falling commodity prices. With the reduced profitability of corn and soybeans, growers are looking for ways

to supplement their businesses and an attractive option is the introduction of new crops to their farming practices. Value-added products and technologies expand agricultural markets and create new job opportunities.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This grant is new in fiscal year 2001. Research to date has identified alternative crops that can produce materials with unique properties and high value-added industrial uses. The New Crops program at the National Center for Agricultural Utilization Research in Peoria, Illinois, has identified several crops with these characteristics that are suited for midwest production.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $94,791.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since this is a new grant, and a proposal has not yet been received, the source and amount of non-Federal funds for this research is unknown.

Question. Where is this work being carried out?

Answer. This work will be carried out at the Western Illinois University.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated date of additional or related objectives?

Answer. This project is expected to be completed in three years.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. Since this is a new grant, no evaluation has been conducted.

VIDALIA ONIONS, GEORGIA

Question. Please provide a description of the research that has been funded under the Vidalia Onion, Georgia grant.

Answer. The original research emphasis had been focused on pungency which became secondary in importance with the appearance of a new disease known to producers as Center rot. This newly-recognized disease caused a rotting of affected onions around the center leaf deep into the bulb. The disease crisis necessitated a revision of the goals of this grant and focused on the identification of this new pathogen, the incidence of the disease in the production system, the mode of disease transmission, the affect of the disease on onions in storage, and management options available to producers to prevent the disease.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for the research?

Answer. Vidalia onions are a specialty crop of great importance to the economy of certain areas of Georgia. This grant funds research to improve product quality and pest management in Vidalia Onion production thus maintaining the national and international economic competitiveness of this vital production system.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research has demonstrated that chemical tests can be used to accurately predict the pungency of onions prior to harvest, and perhaps flavor categorization, to consumers. The results have also indicated that several diseases affecting onions are the most serious problem in regard to quality and production. With the appearance of Center Rot in the Vidalia production system, this grant has focused entirely on understanding and managing this disease.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The project was funded for $84,000 for 1998; $100,000 per year in fiscal years 1999 and 2000; and $249,450 in fiscal year 2001. A total of $533,450 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. The non-Federal funding for this project was $193,137 from the state of Georgia, and $251,427 in private funding.

Question. Where is the work being carried out?

Answer. The work is being conducted at the Coastal Plain Experiment Station in Tifton, Georgia and in test plots in several commercial field sites in the State of Georgia.

Question. What was the anticipated completion date for the original objections of the project? Have those objectives been met? What is the anticipated completion date of additional objectives?

Answer. The anticipated duration for the original project was five years. The initial objective of establishing procedures for pungency testing has proceeded ahead of schedule. The plant disease problems that have emerged will likely require several additional years, although the incidence and severity of these diseases are highly variable from year to year.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A site visit was made by the CSREES Liaison for the Vidalia Onion Special Grant on the University of Georgia campus at Athens, Georgia, on January 14, 2000. The purpose was to discuss the progress and direction of this special grant with the principal investigators and their University Administrators. The project history was reviewed. The emphasis and goals of this special grant changed in fiscal year 1999 because of an emergency production problem caused by a new disease that threatened the product quality and consumer confidence of the entire Vidalia industry. The original research emphasis had been focused on pungency which became secondary in importance with the appearance of this new disease known to producers as Center rot. This newly recognized disease caused a rotting of affected onions around the center leaf into the bulb. The revised goals of this grant focused entirely on the identification of the pathogen, incidence of the disease in the production system, mode of transmission, the affect of the disease on onions in storage, and management options to prevent the disease.

The project accomplishments were reviewed, and the research objectives and performance goals for fiscal year 2000 were presented, justified, and discussed. Future research needs and related production issues were also discussed. The principal investigator demonstrated good progress, strong leadership, and judicious use of project funds. The site visit also allowed the Federal partner to provide input to the direction of the project and for the state scientist to demonstrate the accomplishments, competency, and merit of their research activities.

VITICULTURE CONSORTIUM, NEW YORK AND CALIFORNIA

Question. Please provide a description of the research that has been funded under the Viticulture Consortium, New York and California grant.

Answer. The University of California and Cornell University in New York conducted research on varietal responses of grapes, modeling of water requirements, management of diseases including Phyloxera, and other cultural aspects of grape production. Funds were awarded by the lead institutions on a competitive basis to fund projects in various grape-producing states within their region. Grants were made based on peer reviewed proposals and selected competitively by regional groups based on priorities developed by researchers, extension, and industry personnel.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The research being carried out is designed to help the viticulture and wine industries remain competitive in the U.S. and in the global market. Further, disease and insect problems are a concern of the industry, especially in new strains of phyloxera while overall improvement in all cultural management approaches to grape production need to continue.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to maintain or enhance the competitiveness of the U.S. Viticulture and wine industry in the global market. Each year the project directors meet with stakeholder advisory boards to determine research priorities. These priorities are then used to guide the formulation of a request for proposals.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1996 and 1997, $500,000 per year; fiscal year 1998, $800,000; fiscal years 1999 and 2000, $1,000,000 per year; and fiscal year 2001, $1,496,700. A total of $5,296,700 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Each year the viticulture industry provides matching contributions in excess of the appropriated Federal funds.

Question. Where is the work being carried out?

Answer. These funds are distributed through a competitive grants process administered through Cornell University and the University of California. Each year a request for proposals is sent to all states in which there is a viable grape industry. This results in research being conducted in as many as 12 different states in any one year.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The research priorities set by the guidance group have not been met. The research is varied and complex and will take many years to complete. Current priorities include: optimize grape production efficiency while reducing costs; increase yield and grape quality; identify new grape varieties for different growing regions; develop effective pest management systems; and determine impact of viticultural practices and components of grapes and grape producs.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project underwent merit review in January 2000. The research proposals are peer-reviewed in both regions before selection. The review group is composed on industry, research, and extension personnel that are experts in viticulture.

WATER CONSERVATION, KANSAS

Question. Please provide a description of the research that has been funded under the Water Conservation, Kansas grant.

Answer. This research program is designed to develop and disseminate technical and economic information on the efficient use of water for irrigated crop production in western Kansas. The program has the following five objectives:

—Develop regression models to estimate the longevity of subsurface drip irrigation systems using calculations of annual system performance deterioration based on 13 years of operating pressures and flow rates;

—Evaluate use of livestock effluent with subsurface drip irrigation and its effect on water redistribution and corn water use patterns;

—Develop best management practices for nitrogen fertigation using subsurface drip irrigation systems for corn;

—Estimate the long-run economic impacts of irrigation efficiency improvements for irrigated corn, wheat, and grain sorghum in the farm sector and affiliated sectors of the High Plains economy; and

—Disseminate irrigation research information and best management practice recommendations to Kansas irrigators through a series of extension bulletins and updates based on research-based information.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The need to conserve water has focused attention on more efficient alternatives such as subsurface drip irrigation. This research will be of particular significance within the state and region. However, it also has national and international applications as advanced irrigation systems, such as subsurface drip irrigation, which will be needed to improve irrigation water use efficiency in the next century. Economic research initiated in 1998 is examining the impact of adoption of improved water conservation techniques on the entire regional economy rather than just on the short term economics faced by the individual irrigator. This research will help determine whether society should have a role in providing incentives to increase adoption rates of water conservation technology.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The research goal is to determine the feasibility of subsurface drip irrigation and other alternative irrigation systems in western Kansas to sustain irrigated corn production to support the beef feedlot industry. The project also supports an educational effort through collection and dissemination of information on efficient irrigation methods. Subsurface drip irrigation acreage is increasing in Kansas, and farmers are obtaining results on their own farms.

The computer program Irrigation Economics Evaluation Svstem—IEES—was distributed by the Kansas State University Cooperative Extension Service and is being used by Kansas irrigators. A report has been published that documents the data requirements and algorithms used in the model. A user's guide is also available.

A report entitled, "Economic Analysis of Alternative Irrigation Systems for Continuous Corn and Grain Sorghum in Western Kansas" has been completed. The results of this study indicate that a low drift nozzle, center pivot system is the most

profitable center pivot system to use for irrigation of corn and grain sorghum. Overall, a surge flood system was the most profitable because of its relatively low ownership costs. Although the subsurface drip system shows some potential, it is only economically feasible when above-average crop yield and price conditions exist.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1993 with an appropriation of $94,000; $88,000 in fiscal year 1994; $79,000 each fiscal year from 1995 to 2000; and $78,826 in fiscal year 2001. The total funds appropriated are $734,826.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The state of Kansas non-Federal funds provided to this project were as follows: fiscal year 1997, $119,659; fiscal year 1998, $135,993; and fiscal year 1999, $129,850. No funds were reported in fiscal year 2000.

Question. Where is this work being carried out?

Answer. The research is being conducted at Kansas State University. The field portion of the research is being conducted on Research Centers at Colby and Garden City, Kansas. Additional work is being carried out on campus at the Departments of Agronomy and Agricultural Economics in Manhattan, Kansas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original anticipated completion date for the project was 1998. One of the most important objectives of the study is to evaluate longevity of the subsurface drip irrigation systems. These sites are unique to the region, and very little information is available on system longevity. Pressing water quality problems of a regional and national scope has necessitated a change in the objectives to developing nutrient management practices under subsurface drip irrigation and use of livestock wastewater with subsurface drip irrigation. Additionally, changes in the Federal farm program which allow greater planting flexibility has an effect on how irrigators make water/land allocation decisions. Field and economic studies related to allocation strategies, nutrient management, and wastewater usage should be completed in 3 years. The projected completion date is 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer reviewed in January 2000. The reviewers found the project concept to be valid and the timetable for accomplishments to be on target.

WEED CONTROL, NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the Weed Control, North Dakota grant.

Answer. A major focus has been developing and evaluating systems to reduce herbicide use in crop production. The experiments of longest duration are field evaluations of sustainable, reduced tillage and conventional crop rotation systems to ascertain changes in weed species and densities and in economic returns over time when weed management is reduced. Another emphasis has been weed biology, particularly understanding the unique physiological and genetic traits of herbicide-resistant kochia and wild oat in an effort to recommend the most cost-effective management alternatives. Another goal has been to improve the efficiency of postemergent herbicide use by utilizing additives that maximize weed control with reduced amounts of herbicide and by reducing spray volume and adapting new nozzle designs that improve application techniques.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The research address new methods to control weeds using systems control. The principles concerning effective use of additives with postemergent herbicides are being applied to improving the efficiency of postemergent herbicide use across the nation. Similarly, adaptation of herbicide application technology that allows reduced spray volumes while sustaining herbicide effectiveness is of nationwide benefit. The increased understanding of the inheritance and management of herbicide resistance in kochia and wild oat will be beneficial to management of these weeds in the central and northern regions of the U.S. where these weeds are abundant and cause major losses annually. The long-term field experiments should provide useful information on the positive and negative impacts of reduced weed management systems wherever spring-sown small grains are the primary crop.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The initial major activity was a long-term series of experiments to evaluate changes in weed species and populations and the economic returns in conventional, sustainable, and reduced tillage systems with rotations that are up to four years long. The research was initiated in 1993. At least two complete cycles of crop rotations of eight years will be necessary to accurately assess what farmers can expect from adopting new management systems. Resistance of wild oat to many of the major herbicides used for its control in the U.S. has been documented. This project has been the first to identify specific mutations that cause wild oat resistance. Also, resistance to a new herbicide for wild oat control has been confirmed, which had not been reported previously. Molecular biology and physiological studies were initiated to better understand the cause of this resistance in wild oat, so management strategies can be recommended.

Question. How long has this work been underway and how much has been appropriated by fiscal year through year 2001?

Answer. The support by this grant began in fiscal year 1992 and appropriation for fiscal years 1992 and 1993 was $500,000 per year; $470,000 in fiscal year 1994; $423,000 per year in fiscal years 1995 through 2000; and $435,041 in fiscal year 2001. A total $4,443,041 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $27,030 state appropriations in 1992; $48,472 state appropriations in 1993; $41,969 state appropriations in 1994; $71,847 state appropriations in 1995; $62,134 state appropriations in 1996; $78,579 state appropriations in 1997; and an estimated $70,000 state appropriations in each year of 1998 through 2000. A total of $540,031 in non-Federal funds has been provided from fiscal year 1991 through 2000.

Question. Where is this work being carried out?

Answer. Research is being conducted at the North Dakota State University.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original completion date for the long-term rotation experiment, utilizing the conventional, reduced tillage and sustainable management systems, was anticipated to be a minimum of five years, but the experience with atypical environmental conditions suggest that 8 to 10 years will be necessary to attain a relatively steady state or logical end of the research. The current intent is to continue the research until at least 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A scientific peer review of the written proposal was conducted in fiscal years 1998, 1999, and 2000 by CSREES prior to awarding the grant. CSREES' senior scientific staff review the progress of the grant. Those reviews indicated progress in achieving the objectives.

WETLAND PLANTS, LOUISIANA

Question. Please provide a description of the research that has been funded under the Wetland Plants, Louisiana grant.

Answer. The agency approved a proposal entitled, "Biological Approaches to Coastal Wetland Restoration" from the Louisiana Agricultural Experiment Station. The research is a collaborative effort among scientists of the Louisiana Agricultural Experiment Station Rice Research Station, the Department of Agronomy, and the USDA-Natural Resources Conservation Service's Plant Materials Program. The knowledge and technology resulting from this project should lead to an increased ability to economically propagate and maintain the genetic quality of Spartina alterniflora-smooth cordgrass—which is an important species used in coastal wetlands restoration. Plant biotechnology and genetic improved methods are proven and well established in crop production but have also been applied on a limited basis for bioremediation and coastal wetlands reclamation. This project will develop the knowledge base and strategies for genetic improvement needed for the economic and rapid establishment of Spartina alterniflora over large areas of established and reclaimed coastal wetlands areas. Collections from naturally existing populations will be characterized and superior plants will be intermated in a recurrent selection breeding program to develop improved populations that can be established from seed. Plant cloning artificial seed production and molecular biology will also be used

as tools to facilitate genetic characterization, genetic improvement and establishment of a commercial seed industry. Production research will focus on aspects of seed processing and production, including evaluation of pest control and management strategies to maximize seed production.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. There is local, regional, and national need for this research. Coastal wetlands erosion is a serious environmental problem in many coastal locations around the United States. The program is particularly severe in Louisiana where an acre of coastal wetlands is lost to erosion every 20 minutes. Current technologies, even at great expense, can only slightly reduce these losses. The research this grant is funding has the potential to provide a significant improvement with respect to both the magnitude and expense of further coastal erosion control efforts.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research was to develop an economically-feasible approach to controlling coastal wetlands erosion that would use vegetation to retain areas threatened by erosion and to rebuild lost land. To accomplish this, a system that incorporates agricultural principles involved in crop production is required. Specifically, a seed-based system using appropriate planting material is required. While last year was the first year of funding from the agency for this project, progress has been rapid in developing this seed-based system. Field trials in the marsh were initiated in 1999.

Question. How long has this work been underway and how much as been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999, and the appropriation for fiscal years 1999 through 2000 was $600,000 per year and for fiscal year 2001 is $598,680. A total of $1,798,680 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $18,391 state appropriations, $5,319 industry grants, and $8,691 miscellaneous in 1999. In addition, the University had $110,081 in unrecovered indirect costs. State appropriations for 2000 was $44,441.

Question. Where is the work being carried out?

Answer. Research is being conducted at the Louisiana Agricultural Experiment Station.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Since this is a new program, the original objectives have not yet been met.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project, and there has been no prior agency evaluation. An agency evaluation is planned for fiscal year 2001.

WHEAT GENETICS, KANSAS

Question. Please provide a description of the research that has been funded under the Wheat Genetics, Kansas grant.

Answer. This project provides partial support for the Wheat Genetics Resource Center at the University of Kansas. The Center focuses on collection, evaluation, maintenance, and distribution of exotic wheat-related germplasm needed to develop new wheat cultivar resistant to disease, insects, and environmental stress.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes most cultivated varieties of wheat are derived from common sources. They lack the rich genetic diversity needed to develop resistance to diseases, insects, and environmental stress. The replacement of genetically-rich primitive cultivar and land races by modern, more uniform cultivars all over the world is causing erosion of wheat germplasm resources. New pests or those that have overcome varietal resistance pose a constant threat to U.S. wheat production. Genetic resistance often resides in wild relatives of wheat. The researchers believe this program, which was established in Kansas, is providing service to wheat breeders nationally and internationally.

Question. What was the original goal of this research and what has been accomplished?

Answer. The original goal of this research was to enhance the genetic diversity available to wheat breeders nationally and internationally by collecting, evaluating, maintaining, and distributing germplasm derived from wild relatives of wheat. To date, 39 germplasm releases have been made containing new genes for resistance to such pests as Hessian fly, greenbug, leaf rust, soil-borne mosaic virus, and Russian wheat aphid. Germplasm stocks with resistance to leaf rust and powdery mildew are under development. Evaluation of germplasm for important resistance genes was carried out by Center scientists and cooperating institutions. Center scientists have introduced antifungal protein genes into the wheat plant which enhances its survival against pathogen attacks. One transgenic wheat line gave enhanced resistance to wheat scab, a devastating disease of wheat. In 1998, the center filled 20 requests from U.S. wheat breeders for seed from the germplasm collection and 10 requests for seed of germplasm releases, as well as 34 requests from international breeders.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Work supported by this grant began in fiscal year 1989. Appropriations were for fiscal year 1989, $100,000; fiscal year 1990, $99,000; fiscal year 1991, $149,000; fiscal years 1992–1993, $159,000 per year; fiscal year 1994, $196,000; fiscal years 1995–1997, $176,000 each year; $261,000 per year for fiscal years 1998 through 2000; and $260,426 in fiscal year 2001. A total of $2,433,426 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds provided for this grant were as follows: $609,309 in 1991; $531,167 in 1992; $730,082 in 1993; $468,960 in 1994; $563,671 in 1995; $457,840 in 1996; $495,820 in 1997; $155,279 in 1998; $452,600 in 1999; and $527,000 in 2000. Sources include state appropriations, product sales, and other organizations, such as state commodity associations.

Question. Where is this work being carried out?

Answer. This research is being conducted at Kansas State University at the Wheat Genetics Resource Center. The principle investigator also reports collaborative projects with other departments at Kansas State University, as well as other institutions in the U.S.

Question. When was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The collection, evaluation, and enhancement of wheat germplasm is continual process. Therefore, this project does not have a defined completion date. Some objectives related to germplasm evaluation have been completed in fiscal year 1999, and other objectives which are related to other genetic sources are still in the developmental stage.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project is peer reviewed annually by the institution, Kansas Agricultural Experiment Station, and was found to address important issues in the winter wheat industry in Kansas and other states. The research has been productive based on germplasm releases and peer-reviewed journal articles and other publications. Additionally, each annual proposal is reviewed by CSREES National Program Staff.

WHEAT SAWFLY RESEARCH, MONTANA

Question. Please provide a description of the research that has been funded under the Wheat Sawfly Research, Montana grant.

Answer. This is a new grant, and CSREES has requested Montana State University to submit a grant proposal that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The wheat stem sawfly is a long-standing pest of dryland cereal production in the northern Great Plains. Recently, this sawfly has adapted to become a pest of winter wheat. Historically, it was a pest of spring wheat only, but changes in its seasonal biology have now allowed it to expand its host range significantly. At a regional level, Montana, western and central North Dakota, north-central Wyoming, southeastern Idaho and the Nebraska panhandle are all impacted by the wheat stem sawfly. Its range also extends northward in to the Canadian prairie provinces, with losses estimated at over $100 million annually in this area. Losses due to this insect are focused in Montana with annual losses ranging from $20–$30 million. Montana is where the impact of the sawfly is centered, and infestation lev-

els can be up to 100 percent in areas with the heaviest damage. These localized heavy infestations can be particularly catastrophic to individual producers who may not be able to withstand heavy losses for several years in a row.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new project with initial goals to expand upon exploratory work on five novel avenues aimed at two critical stages of the sawfly, for example, mating and overwintering. The first is to develop an understanding of the role of multiple components of a complicated grouping pheromone system involved in insect mating. A related thrust is to focus on host plant attractants, repellents, and induced signals in the plants defenses as new ways to manipulate the insect in its environment. Second, investigations toward expanding knowledge based on preliminary indications that two partially effective natural enemies are impacting the sawfly in wheat, and that induced plant signals may be critical in the effectiveness of these enemies. The investigators will also look at the pheromones, kairomones, and allomones used by these beneficial species as a potential monitoring tool to better understand the broad distribution of the species, and to target new release sites. Third, they will examine the chemical cues released by pathogen-infected wheat plants, to better understand the nature of facultative use of overwintering sawflies by these pathogens. This process kills sawfly larvae, although in an unknown fashion. Fourth, they will fully elucidate the chemistry of the resistance mechanisms expressed by several grass and weed species attacked by the sawfly. The resistance shown kills many sawfly larvae, but in a way that is not completely understood. Each of these target areas will allow us to identify and develop practical tools for sawfly management. Finally, they will use Russian wheat aphid-resistant isolines to examine sawfly and multiple pest resistance traits in wheat. This information will provide cereal breeders with a new arsenal to use in developing insect-resistant varieties.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001, and the appropriation for fiscal year 2001 is $331,270.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This is a new project which will begin during 2001; other potential funding sources have not yet been developed.

Question. Where is the work being carried out?

Answer. The research will be conducted throughout Montana, with the main laboratory focus being centered at the main Montana State University campus in Bozeman. Annually, there will be a need to field test new behaviorally active compounds, and this will be handled at the level of individual farm cooperators, with Montana State University Research Centers in wheat producing parts of the state aiding in the coordination of this effort. For the work on the natural enemies, a considerable effort will be concentrated on understanding the distribution in the eastern part of Montana, with the Research Centers at Sidney and Huntley assisting.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The work proposed is to conduct basic research to aid in applied goals. The timelines are somewhat lengthy because of this. However, all goals should be reached by 2005, except for the pathogen-based approaches, which will require approximately seven years.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project and will be evaluated through accomplishment reports at the outset. An on-site review of another Montana special grant will enable a review of initial set-up and progress on this project at the beginning of the work.

WOOD UTILIZATION RESEARCH

Question. Please provide a description of the research that has been done under the Wood Utilization Research grant.

Answer. The research includes: developing processes to upgrade wood products made from small-diameter or low quality trees to higher value structural applications; catalyzing the formation of new business enterprises; reducing environmental impact while improving systems for timber harvesting and forest products manufacturing; increasing the life of wood in use through preservation and good design; and assisting industry to be more innovative.

Question. According to the research proposal, or the principal researchers, what is the national, regional, or local need for this research?

Answer. The forest products industry is very fragmented with many small firms which benefit from publicly-sponsored research. Research provides the woodworking machinery and tooling industry with the technology needed to be more competitive in the global economy. Most of the companies helped by this research are too small to afford in-house research groups. Shifts in resource availability and increased costs of the timber that is still available demand more complete usage in order for wood to remain competitive.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to generate new knowledge that will benefit the wood industry and the environment. New scientists are trained. Consumers benefit from better and more environmentally-sound products. Among the major accomplishments of the eight centers are (1) design of glue-laminated beams, reinforced with plastics, to save 25–40 percent of the wood fiber that would otherwise be needed; (2) technology to apply wood preservatives using super fluids to reduce environmental problems associated with present commercial treatments; (3) better harvesting systems that are efficient and environ-mentally acceptable; (4) increase of wood machining speeds and reduction of saw blade width to increase productivity and save raw material; (5) a patented system to apply pressure and vibration to prevent enzymatic sapstain which degrades hardwood lumber by $70 to $200 million per year; (6) reduction of quantity of wood bleaching chemicals needed by wood pulp producers; (7) design and strength of wood furniture frames to minimize wood requirements; (8) adoption of European frame saw technology to composite lumber to provide a new raw material source for industry; (9) improved technology to non-destructively scan standing trees for mechanical properties of the wood; (10) reduced warp in structural lumber produced from small-diameter trees; (11) characterization of the wood products industry; (12) heartwood formation; (13) recovery of preservatives from treated wood; (14) installation of a statistical process control system in one sawmill with impressive cost savings; and (15) development of cost effective and environmentally-friendly processes for removing high value chemicals from bark.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows:

Fiscal year	*Amount*
1985	$3,000,000
1986	2,852,000
1987	2,852,000
1988	2,852,000
1989	2,852,000
1990	2,816,000
1991	2,852,000
1992	2,852,000
1993	4,153,000
1994	4,176,000
1995	3,758,000
1996	3,758,000
1997	3,536,000
1998	3,536,000
1999	[1] 5,136,000
2000	[2] 5,136,000
2001	5,773,271
Total	61,890,271

[1] Provided a $500,000 increase for the six existing centers and $1,000,000 for the two new centers

[2] Provided $577,000 to establish a new center in Alaska.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The following are non-Federal funds provided by states:

—Mississippi State University non-Federal funds were: State appropriations, $2,498,800, $2,178,725, $2,353,225, 2,331,691, $2,650,230, $2,778,535, $2,582,617, 2,543,017, $2,717,448, and $2,993,888 for 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, and 2000 respectively. In addition, industrial funds averaged $958,871 for the 5 years from 1995 to 2000 in support of Mississippi's research.

—Oregon State University state appropriations were: $1,337,962, $1,394,304, $1,256,750, $1,252,750, $1,417,755, $1,117,000, $1,100,000, $1,352,000, $1,337,000, and $1,492,000 for 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, and 2000, respectively. Estimated non-public support was $802,000 this year.
—Michigan State University non-Federal contributions were $605,000, $590,000, $700,000, and $600,000 for 1997, 1998, 1999, and 2000 respectively.
—Three new locations were added in 1994: University of Minnesota-Duluth non-Federal match was $590,000, $550,000, $560,000, $371,930, $307,532, $510,939, and $1,506,000 for 1994, 1995, 1996, 1997, 1998, 1999, and 2000, respectively.
—North Carolina State University was $126,000, $165,000, $135,000, $163,216, $323,134, $518,258, and $556,486 for 1994, 1995, 1996, 1997, 1998, 1999, and 2000 respectively.
—University of Maine was $600,000, $445,723, $459,100, $477,464, $526,210, $148,032, and $619,898 for 1994, 1995, 1996, 1997, 1998, 1999, and 2000, respectively.
—Two new centers were added in 1999:
  —The University of Tennessee non-Federal funds for 1999 and 2000 were $150,987 and $241,696 respectively.
  —The consortium of the Universities of Idaho and Montana and Washington State University non-Federal funds for 1999 and 2000 were $305,000 and $406,000, respectively.
—An additional new center was added in 2000: The University of Alaska non-Federal funds for 2000 were $257,872.

Question. Where is the work being carried out?

Answer. There are nine locations. The initial three—Oregon State University, Mississippi State University, and Michigan State University—were joined by the University of Minnesota-Duluth, North Carolina State University, and the University of Maine in fiscal year 1994. In 1999, they were joined by a center at the University of Tennessee and a second center at the University of Idaho, which includes a consortium of the University of Idaho, University of Montana, and Washington State University. In fiscal year 2000, funds for a wood utilization center in Alaska were appropriated. This Center is just getting organized now.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objective was to build and maintain three strong regional centers of wood utilization research. These centers have been established, and six additional centers have been established. Projects begun in 1999 will be completed by 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. On-site reviews of centers are conducted on a rotating basis. Each center's plans are reviewed yearly or more frequently. Progress reports are reviewed yearly. Center directors met together for joint planning in June 1996, February 1999, and December 2000. Centers all have advisory committees or research committees which meet periodically. The agency conducts informal on-site reviews periodically. The Minnesota and Oregon sites were visited in 1996; the North Carolina site was visited in 1997. Oregon State was visited in 1998. A Departmental panel reviewed the original three centers in 1992 and 1993. At that time, the original objectives were broadened to address environmental concerns. The centers are helping industry meet environmental objectives by conducting research leading to sustained timber production; extending the timber supply through improved processing; developing new structural applications for wood; and developing wood extractives to substitute for pesticides, preservatives, and adhesives.

WOOL RESEARCH, TEXAS, WYOMING, AND MONTANA

Question. Please provide a description of the research that has been funded under the Wool Research, Texas, Wyoming, and Montana grant.

Answer. The overall goals for this research are to develop objective measures of wool, mohair, cashmere, and other animal fibers to improve the quality of wool products while enhancing the profitability of the U.S. sheep and Angora goat industries. Specific objectives include: develop and evaluate measurement techniques for rapid objective evaluation of wool, mohair, cashmere, and other animal fibers; increase the use of objective measurements to increase fiber production, quality, and income to producers; and increase consumer acceptance of fabrics made from these fibers. The fiscal year 2000 grants terminate between May and August 2001. The 2001 grant

proposals have been requested by the agency. All grants are reviewed for relevance to industry needs and undergo scientific peer review.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Collaboration exists among researchers in Texas, Wyoming, and Montana associated with this grant and other Federal, university, and industry scientists to assure responsiveness to the needs of those involved in wool and mohair production, marketing, and processing. The sheep and goat industries and the principal researchers believe that this research is of national, regional, and local need. The research on wool, conducted by means of this grant, represents the only research efforts in the U.S. focused on improving the efficiency of measuring and assuring wool, mohair, and cashmere quality for garments made from these fibers.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The overall goal for this research is to develop and evaluate objective measures of wool, mohair, cashmere, and other animal fibers with a focus on improving the efficiency of manufacturing and predicting the quality of products made from these fibers while enhancing the profitability of the sheep and Angora goat industries. Research accomplishments included the development of rapid and inexpensive measurements of average fiber diameter and distribution of animal fibers and other fiber properties such as fiber length and color. Each of these properties are very important for grading and processing to determine ultimate softness, durability, dye characteristics, comfort, and garment price. Within the past year, evaluation of laser and automatic image analysis techniques have been completed by the three cooperators in this project in collaboration with Yocom-McColl Testing Labs, the main animal fiber testing lab in the U.S. Two of the principal investigators authored American Society for Testing and Materials standard methods of test for these instruments that are now published by the Society and, therefore, accepted and in use by the U.S. textile industry. Due in large part to efforts expended under this grant, all animal fibers tested for fiber diameter distribution by this commercial laboratory are now tested using one or the other of these new instruments. This has resulted in labor savings that have produced a reduction in the price for some associated fiber tests. Producers, traders, and processors now receive more accurate fiber data at reduced cost and with shorter turnaround times. Because this form of testing is also recognized by the international textile community, U.S. animal fibers are now more readily accepted and accessible as international commodities. Additional instruments, primarily for measuring length and strength, have also been evaluated with the ultimate objective of better describing domestic wool that will eventually permit electronic trading of animal fibers. These measurements impact the efficiency of the sheep and Angora goat industries, the effectiveness of monitoring the quality and consistency of imported products, and the satisfaction of buyers of wool, mohair, and cashmere textiles. Other experiments, aimed at enhancing our ability to establish the value of specialty animal fibers were successfully completed and reported for mohair, cashmere, and other fibers. Experiments were also conducted to identify more productive rams and billie goats; to select for finer and more valuable mohair in Angora goats; to establish the genetic, nutrition, and management requirements for the concurrent production of lean lamb meat and high quality wool; and to demonstrate the economic advantages to producers of skirting and classing their raw wool prior to marketing. Research and education efforts have kept U.S. processors and producers current on the status of the wool markets world wide. A functional home page was built for the purpose of electronic marketing of wool, mohair, and cashmere with plans to have it in use by the private sector in late 2000 or early 2001. It is important that the U.S. producers of wool, mohair, and cashmere are competitive in the world market and that consumers are assured high quality textiles.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Grants have been awarded from appropriated funds in the amount of $150,000 per year for fiscal years 1984–1985; $142,000 per year for fiscal years 1986–1989; $144,000 for fiscal year 1990; $198,000 for fiscal year 1991; $250,000 per year for fiscal years 1992–1993; $235,000 for fiscal year 1994; $212,000 per year for fiscal years 1995–1997; $300,000 per year for fiscal years 1998–2000; and $299,340 in fiscal year 2001. A total of $3,780,340 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were as follows: $150,913 state appropriations, $11,800 product sales, $5,817 industry, and $3,556 miscellaneous in 1991; $111,394 state appropriations, $25,451 product sales,

$41,442 industry contributions, and $3,068 miscellaneous in 1992; $152,699 state appropriations, $39,443 product sales, $40,804 industry contributions, and $3,556 miscellaneous in 1993; $150,094 state appropriations, $35,284 product sales, $36,484 industry contributions, and $3,556 miscellaneous in 1994; $67,345 state appropriations, $10,000 product sales, and $34,325 industry contributions in 1995; $39,033 non-Federal support in 1996; $174,486 non-Federal support in 1997; $200,307 state appropriations and $13,000 industry contributions in 1998; $202,854 state appropriations, $14,385 industry contributions, and $34,000 miscellaneous in 1999; and $208,475 state appropriations, $13,000 industry contributions, and $30,500 miscellaneous in 2000.

Question. Where is this work being carried out?

Answer. The research is in progress at Texas A&M University, Texas Agricultural Experiment Station at San Angelo, the University of Wyoming at Laramie, and Montana State University at Bozeman.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The original objectives to improve the efficiency and profitability of wool, mohair, and cashmere production and marketing are still valid. Specific objectives for individual laboratories and experiments are continually revised to reflect the changing research priorities for the wool, mohair, and cashmere industries and to satisfy consumer demands for products from these fibers. It is anticipated that five years will be required to complete the current research.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An external review of the overall wool research program was conducted in 1998 in Las Cruces, New Mexico, by a team consisting of industry experts and peers from the scientific community. The review team concluded that the program was very productive and beneficial to the U.S. wool, mohair, and cashmere producers as well as the allied fiber industries. Research achievements, noted by the review team, included program input for testing methods and standards used to buy and sell wool for international trade. This has been very important in advancing issues important to domestic producers and maintaining competitiveness in the world market. World-wide acceptance of standards for the objective measurement of natural animal fibers due, in part, to this program, has set the stage for the electronic marketing of wool and other fibers to aid the U.S. fiber industries in remaining competitive in the world market. Viable sheep and goat industries will support jobs for people in rural areas, supply alternative foods for public consumption, use natural means of brush control to abate fire on rangeland and inhabited areas, and provide alternative uses of land unsuitable for cultivation and cattle grazing.

In addition to the program review, grant proposals are annually reviewed and the research facilities are periodically visited. The principal investigators meet annually to evaluate progress and re-evaluate research priorities according to industry needs. Because the research encompassed in this grant is a component of a regional research project, accomplishments are reported annually to scientific peers and representatives from the sheep, goat, wool, mohair, and cashmere industries. In addition, the overall regional research project is peer reviewed every third year.

FEDERAL ADMINISTRATION AND SPECIAL GRANTS

AGRICULTURAL DEVELOPMENT IN THE AMERICAN PACIFIC

Question. Please provide a description of the research that has been funded under the Agricultural Development in the American Pacific program.

Answer. The Agricultural Development in the American Pacific—ADAP—is a primary means for Land Grant research, extension, and instruction programs of the five participating institutions of American Samoa Community College, College of Micronesia—including the College of the Federated States of Micronesia, College of the Marshall Islands, Palau Community College—, Northern Marianas College, University of Guam, and University of Hawaii, to collaborate and cooperate to enhance their impact on Pacific tropical agriculture and communities. ADAP is a mechanism to address common regional client-based issues while maintaining cultural, rural, economic, and environmental integrity. This research grant is awarded non-competitively to a program planned and approved by the five involved Land Grant institutions.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the five participating institutions are geographically dispersed yet facing many similar issues which can best be served through extensive networking and communication. ADAP facilitates communications and seeks to raise levels of academic achievement and faculty skills and improves the overall quality of education at the Pacific Land Grants. ADAP's most unique feature is that twice each year it brings together the five Deans/Directors to discuss agriculture and human resources issues facing isolated, tropical ecosystems in the Pacific, and to plan and implement activities to address those issues. Oftentimes, discussions go beyond ADAP funding and opportunities to areas of increased partnership such as that found with the 1890 Land Grants. ADAP priorities are categorized in three areas: sustainable systems, collaborations/partnerships, and communication systems. Activities include joint and collaborative efforts to improve animal waste management, animal health, and information distribution; to business development and human nutritional improvement; to improving leadership capabilities at the institutional level; building mutually beneficial relationships with the 1890 Land Grant institutions; and the seeking of recognition of Pacific tropical agriculture by the National Association of State Universities and Land Grant Colleges.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. ADAP's goals are to develop human resources and information capacity within the institutions to manage more effectively agricultural programs within and among the institutions, and to focus available resources on critical agricultural issues of the Pacific. Ongoing projects include animal health surveys, livestock waste management, artificial insemination demonstration/education, market and production information tracking systems—co-developed with island "state" Departments of Agriculture— and a website that contains relevant publications from around the world. ADAP is also continuing to work with the 22-nation Secretariat of the Pacific Community in developing a paraveterinary education program. This program will use distance learning and site visits to train students from the cooperating nations and territories in animal health. This is a critical need for the Pacific region. Both ADAP and the Secretariat of the Pacific Community contribute support as well as skilled personnel to assist in this project. In another regional cooperative effort, ADAP led a retreat for strategic planning among the "state" and national Departments of Agriculture in the Pacific region in July 1999. That retreat identified food insecurity as a major issue for Pacific Island nations, and ADAP is formulating a number of island forums, in collaboration with the Secretariat of the Pacific Community and the Food and Agriculture Organization—FAO, Pacific office— to address the issue. In February 2000, the ADAP directors met with the University of the South Pacific and other international organizations in Apia, Samoa, to work on ways to communicate and collaborate better on issues of mutual interest.

Question. How long has this work been underway and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. This work was funded for seven years with an annual appropriation of $650,000 to the former Extension Service. In fiscal year 1994, an appropriation of $608,000 was made to CSREES to continue the ADAP program. In fiscal year 1995 the appropriation was $527,000. The fiscal years 1996 and through 2000 appropriations were $564,000 each year and fiscal year 2001 is $562,759. The appropriation total to CSREES is $4,517,759.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds are not provided. Unspecified in-kind support, such as facilities, equipment, and administrative support is provided by each institution and, in some specific projects, by non-ADAP collaborating institutions.

Question. Where is this work being carried out?

Answer. American Samoa Community College, College of Micronesia, College of the Federated States of Micronesia, College of the Marshall Islands, Palau Community College, Northern Marianas College, University of Guam, and the University of Hawaii are carrying out this work.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The ADAP program has been achieving original program objectives, particularly in the areas of improvement in institutional capacity and communications. It is anticipated that an additional 5 to 10 years will be needed to fully achieve collaborative integration of the American Pacific land-grant programs.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A formal review of the ADAP program was conducted July 1–10, 1997, and included visits by review team members to American Samoa Community College, College of Micronesia, Northern Marianas College, University of Guam, and University of Hawaii. ADAP incorporated review recommendations in preparing and adapting a new five-year strategic plan. An agency specialist conducts a merit review of the proposals submitted in support of the appropriation annually. In a review of the April 1999 proposal, progress was judged to be satisfactory.

AGRICULTURAL WASTE UTILIZATION, WEST VIRGINIA

Question. Please provide a description of the research that has been funded under the Agricultural Waste Management, West Virginia grant.

Answer. The West Virginia Department of Agriculture is conducting a project to validate the applicability and effectiveness of anaerobic filtration for treating municipal and agricultural wastes. Anaerobic filtration is a leading-edge technology specifically developed to biologically recover nutrients and energy from organic waste streams and produce an effluent which meets discharge permit requirements. West Virginia State College has worked on three objectives. One is to conduct field trials to determine the effect of digested solids on vegetable crops and pasture grasses. Task two is to assess the feasibility of using various digested waste products as a base for fish feeds. Task three is to move the anaerobic digester from Moorefield, West Virginia, to West Virginia State College for research and training.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The current need for this technology is local, national, and international. The beneficiaries of this technology will be both the people and the environment anywhere in the world where problems of food, fertilizer, and energy shortages are currently in conflict with the preservation of environmental quality. The direct benefits include enhanced and expanded waste water capacity, creation of new jobs, and revenue from by-products and water quality improvement.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was to determine the applicability of anaerobic digestion to convert organic waste materials to energy in the form of biogas, thereby reducing the amount of organic matter for disposal. The goal will go beyond the testing of waste materials in the digester and proceed with a program to compare the microbiological loading of rivers, where known environmental pollution is measurable, and where the total bacterial concentration in the rivers could be determined in real-time with a bioprobe. The subsequent goal is to manage the remaining solids from anaerobic digestion in an environmentally-sound manner.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998 and the appropriation for fiscal year 1998 was $360,000; for fiscal year 1999, $250,000; fiscal year 2000, $500,000; and fiscal year 2001, $494,909. A total of $1,604,909 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funds are not being expended.

Question. Where is this work being carried out?

Answer. Research is conducted at West Virginia State College, Charleston, West Virginia. Prior to 2000, most of the anaerobic digestion work was at a private farm near Moorefield, West Virginia.

Question. What was the anticipated date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date of the original objectives is June 30, 2000. These objectives are being met within the original schedule. The additional objectives should be completed by June 30, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The anaerobic digester sludge samples collected are analyzed at the laboratories of the West Virginia Department of Agriculture in Moorefield, West Virginia. The typical analyses consists of: total solids, volatile solids, volatile fatty acids, total kjeldahl nitrogen, phosphorus, pH, and fecal coliform. The separated solids are collected and sent to West Virginia State College for use in field studies to determine plant growth response to the nutrients. The perennial crops, blueberries and pasture grass, were planted in 1999 on the 2/3 acre field site. A fish production

facility was built with approximately 40 fish tanks and associated aquaculture equipment. This facility will be used to assess the feasibility of using various digested waste products as a fish feed. The anaerobic digester at the Moorefield, West Virginia, site was dismantled to be moved to Charleston, West Virginia.

AGRICULTURE WATER POLICY, GEORGIA

Question. Please provide a description of the research that has been funded under the Agriculture Water Policy, Georgia grant.

Answer. The research will investigate policy implications of agricultural water use in Georgia and across the southeastern U.S. The agency has received the grant proposal describing the proposed research and expected outcomes of the research.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Agricultural water use in the southeast U.S. has increased dramatically over the last two decades. At the same time, population growth in this region has led to increased demands for municipal water sources. The proposed research will evaluate these conflicting needs and develop policies aimed at maximizing the utility of the water supply to meet municipal and agricultural demands.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals of this research are to identify future water resource related problems, design alternative policies to correct these problems, estimate financial and non-monetary benefits of the alternative policies, and develop consensus among agricultural producers regarding preferred policies. This is a new grant; therefore, no work has been accomplished to date.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This is a new grant. The work supported by this grant begins in fiscal year 2001, and the appropriation for fiscal year 2001 is $365,195.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds and outside sources were provided for this grant in fiscal year 2001.

Question. Where is this work being carried out?

Answer. The majority of the work is being conducted at the Georgia Water Policy Center at Georgia State University. Additional work will be conducted through a collaborative arrangement established with Georgia Southern University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is a new grant. The anticipated completion date for this project is February 2004. No objectives have been completed at this time.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency is conducting a review of the proposal submitted by Georgia State University. Subsequently, an annual evaluation of the project is expected.

ANIMAL WASTE MANAGEMENT, OKLAHOMA

Question. Please provide a description of the research that has been funded under the Animal Waste Management, Oklahoma grant.

Answer. This research project is designed to develop sustainable, environmentally safe, and ecologically-sound best management principles and practices for beneficial animal waste applications for High Plains Agriculture in support of rural economic development through a Federal-state-local partnership. Emphasis will be placed on the rapidly expanding swine industry in the semi-arid region, but information gained will also be applicable to the beef and dairy industries which play major roles in agriculture production in the region.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Oklahoma Panhandle region and contiguous counties in the states of Colorado, Kansas, New Mexico, and Texas generates nearly $3 billion in sales of agricultural products annually. The Oklahoma Panhandle is the most productive agricultural region in the state with agricultural receipts in excess of $900 million, which represents 31 percent of the receipts in the region. Texas County, in the Oklahoma Panhandle, ranks number one in the state with sales of $668 million in 1997 and twentieth of all counties in the U.S. in agricultural sales. The majority of sales are related to livestock production and the rapid expansion of the swine in-

dustry in this semi-arid region has only strengthened that position. Oklahoma has moved to ninth in position in the U.S. for swine sales and Texas County, has risen to third nationally with nearly $200 million in swine sales from a position of 645 in 1992. The rapidly expanding swine industry was projected to add $650 million in pork and value-added products in Oklahoma through the slaughter and processing of over 4 million hogs per year. Information gained from this study will provide the database to develop best management practices to maximize beneficial nutrient use and minimize nuisance odor in semi-arid cropping and rangeland production systems. Practices developed will have significant implications regionally, nationally, and internationally. The semi-arid agro-ecosystem is unique with climatic conditions consisting of low rainfall that promotes both dryland and irrigated agricultural practices; extremes in high and low temperatures; soils characterized with alkaline pH, low in organic matter, and high in calcium carbonate. This unique agro-ecosystem makes information gained from more humid environments inapplicable.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to develop best management practices that will protect ground water supplies from pollution of nutrients, salts, and pathogens; maintain air quality; and minimize odors derived from the entire swine-house, lagoon, land-application, soil-cropping and or rangeland production system, thus maintaining the quality of life in the rural sector. The work shows a positive response to animal waste applications particularly for the forage production systems. This will have an immediate impact for producers who have a diversified livestock production system that includes swine, beef, and/or dairy. Studies of ammonia loss from applications indicate there can be significant losses following land applications. This has several implications for producers and the environment due to ammonia loss and ammonia deposition. Ammonia is one of several factors associated with air quality in the region that contributes to the quality of life. This project has been able to accurately predict conditions that contribute to ammonia loss that will be included in the best management practices for the region. Developing this and other best management practices will allow producers to minimize ammonia losses and improve air quality in the region.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998 and the appropriation for the fiscal years 1998, 1999, and 2000 at $250,000 per year and for 2001 is $274,395. A total of $1,024,395 has been appropriated for this project.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This project has been matched by $750,000 non-Federal funding. Sources for this funding have been State and agricultural industries.

Question. Where is this work being carried out?

Answer. This work has been initiated at The Oklahoma Panhandle Research and Extension Center located in Goodwell, Oklahoma. Further work will continue to be done at this site. The Center will provide the land area and a portion of the facilities and equipment necessary to conduct the major portion of the study. Other study sites have been developed on private land in cooperation with swine operations in the panhandle region.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original completion date was February 29, 2000. Some of the original objectives have been answered in regard to air quality and ground water protection. However, work needs to continue on the implications of ammonia deposition and the effect on water quality in the region. Additional work needs to continue on the issues related to soil quality and cropping system management. Completion of these objectives and additional objectives related to these will be February 28, 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was evaluated at the end of December 2000 when the summary report of the 1999–2000 accomplishments was submitted. Significant progress has been made toward accomplishing the specified goals.

Results to date indicate significant amounts of ammonia will be volatilized, lost as a gas, almost immediately following effluent application to bare soils. Preliminary indications are that applications made to soil, which have significant quantities of plant residue or growing plants will reduce the quantity of ammonia lost by this pathway. An accurate predictive model has been developed to determine the amount

of ammonia loss following application. This model will be included in development of best management practices for swine effluent application. Swine effluent applications to corn, sorghum, and forages have demonstrated that it is an acceptable method to supply nutrients for crop production. Of particular interest has been the response of the forage buffalo grass that is native to the Great Plains where work has been completed that indicates there is very limited potential for phosphorus from a swine lagoon reaching the aquifer in the region.

Results of this project to date have been disseminated to the scientific community and general public via: one conference, four refereed publications one published proceeding, eleven proceedings papers, eight abstracts, one completed thesis, nineteen presentations at national or regional meetings and five publications in preparation.

BIOTECHNOLOGY RESEARCH, MISSISSIPPI

Question. Please provide a description of the research that has been done under the Biotechnology Research, Mississippi grant.

Answer. This was a new special grant in fiscal year 2000. First year accomplishments include the hiring of two doctoral-level biotechnologists and the selection of two crops, sweet potato and hot pepper, as the initial target crops for improvement through genetic modification. CSREES has requested Alcorn State University to submit a grant proposal for fiscal year 2001 that has not yet been received.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The overall purpose of this project is to establish a Biotechnology Center at Alcorn State University that will focus on plant biotechnology research geared toward small farmers in Mississippi. Emphasis will be placed on improving the productivity and efficiency of crops and plants grown by small farmers in order to improve profitability and ensure long-term viability.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of the research is to enhance Alcorn State University's research efforts in biotechnology through genetic improvement research utilizing biotechnology techniques and to improve the livelihood and viability of limited-resource producers in Mississippi and the southeast. First year accomplishments include the hiring of two doctoral-level biotechnologists and the selection of sweet potato and hot pepper as target crops for improvement through genetic modification.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This project began in fiscal year 2000 with an appropriation of $425,000 and $589,700 in fiscal year 2001. The total amount appropriated is $1,014,700.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. A $150,000 grant from the World Bank in fiscal year 1996 and state funds have supported this work in previous years.

Question. Where is this work being carried out?

Answer. The research is being conducted at Alcorn State University in Lorman, Mississippi, and at field locations in Preston and Mound Bayou, Mississippi.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal investigator anticipates completing the original objectives of the project by 2003. Additional or related objectives have not been specifically identified at this time.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The Alcorn State University project was evaluated by a merit review panel convened by the agency on April 17, 2000. The panel recommended approval of the project pending receipt of supplemental information on scientific and administrative aspects of the project. The supplemental information was received, and the agency is satisfied that the program is being administered in compliance with the purpose of the grant. A review panel will be convened to re-evaluate the project upon receipt of a proposal for fiscal year 2001.

CENTER FOR AGRICULTURE AND RURAL DEVELOPMENT

Question. Please provide a description of the research that has been done under the Center for Agriculture and Rural Development program.

Answer. The research monitors the final form and implementation of the Uruguay Round Agreement and evaluates its impacts on global trade and implications for U.S. Agriculture.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. As the Uruguay Round—UR—Agreement implementation proceeds, researchers will monitor the development of these policy changes and analyze the likely impacts of these decisions with emphasis on obtaining differential impacts for developing economies, developed economies, and those in transition. Researchers will also explore possible directions for the next Round or Mini-round of the World Trade Organization.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal is to assess and evaluate various proposals affecting agricultural trade, to provide analytical support to the Office of the U.S. Trade Representative, and to provide information to farmers and agribusiness firms on the competitive implications of trade agreements. Theoretical studies and empirical and descriptive analyses of policy issues and technical problems pertaining to the Uruguay round of negotiations were completed and provided to negotiators and the agribusiness community. Knowledge developed in this phase is now being used to monitor the effects of the Uruguay Round Agricultural Agreement—URA.

This grant supports six projects focusing on URA and the World Trade Organization—WTO—monitoring and implementation problems; implications of the URA and WTO for Eastern Europe, Baltic, and the Newly Independent States; development of a model to assess the North American Free Trade Agreement and its linkages with the General Agreement on Tariffs and Trade; trade implications of U.S. food and development aid in developing countries; integration of China into world agricultural markets; and special projects as requested for the United States Trade Representative's office. Major emphasis is placed on developing and improving international livestock and grain sector models.

Question. How long has this work been underway and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. This research program was initiated in fiscal year 1989. Grants have been awarded from funds appropriated as follows: fiscal year 1989, $750,000; fiscal years 1990 and 1991, $741,000 per year; fiscal years 1992–1993, $750,000 per year; fiscal year 1994, $705,00; fiscal year 1995, $612,000; fiscal year 1996, $655,000; fiscal years 1997 through 1999 $355,000; fiscal year 2000, $355,000; and fiscal year 2001, $427,058. A total of $7,551,058 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $111,210 State appropriations and $175,616 miscellaneous for a total of $286,826 in 1991; $113,779 State appropriations and $173,117 miscellaneous for a total of $286,896 in 1992; $120,138 State appropriations and $164,707 miscellaneous for a total of $284,845 in 1993; $161,000 State and $30,000 miscellaneous for a total of $191,000 in 1995; $70,000 State appropriations and $44,000 miscellaneous for a total of $114,000 in 1996; $60,325 in State appropriations and $61,500 in miscellaneous funds for a total of $121,825 in 1997; and $72,000 in State appropriations and $75,000 in miscellaneous funds for a total of $147,000 in 1998.

Question. Where is the work being carried out?

Answer. The research program is carried out by the Center for Agriculture and Rural Development at Iowa State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives of the project envisioned the development of models capable of providing guidance to policymakers, researchers, and farmers and others of the impact of agricultural trade proposals on the U.S. agricultural sector. As such the objectives are ongoing.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. We have conducted no formal evaluations; however, each annual proposal is peer reviewed for relevance and scientific merit. Also, an informal evaluation of this project takes place as a part of each annual project review and approval process.

CENTER FOR INNOVATIVE FOOD TECHNOLOGY, OHIO

Question. Please provide a description of the research that has been funded under the Center for Innovative Food Technology, Ohio grant.

Answer. Funds from the fiscal year 2000 grant are supporting research projects on the use of neural networks to classify food ingredients, on maximizing the concentration of ellagiac acid and lycopene in raspberries, developing protocols for producing swiss cheese starter cultures, developing improved methods for coating snack food and cereal products, and studying the use of ozonated water for washing packaged salads

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes the value-added food processing industry is the largest industry in the mid-western states, including Ohio where the industry contributes over $17 billion to the annual economy. From an economic development point of view, processing and adding value to crops grown within a region is the largest possible stimulus to that region's total economic product. This program aims to partner with and encourage small and medium-sized companies to undertake innovative research that might otherwise not be undertaken due to risk aversion and limited financial resources for research and development in these companies. The principal researcher believes that, although the initial impact of this research will be regional, the recipient organization of this grant is part of a technology transfer network and proactively seeks opportunities to deploy technologies developed through this research to the food industry on a national basis.

Question. What was the original goal of the research and what has been accomplished to date?

Answer. The original goal of the research was to develop innovative processing techniques to increase food safety and quality or reduce processing costs. The neural network project has developed a model for predicting the optimum processing parameters for meat product ingredients; the raspberry and tomato products have resulted in useful information to increase the positive health effects from consuming the fruits; the Swiss cheese project has developed a standardized method for producing starter cultures that lowers production costs; the coatings work has resulted in improved methods for adding flavorings to food products at lower cost; and the ozonation project, when complete, will very likely increase the shelf life and safety of packaged salad products.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1995. The project received appropriations of $181,000 per year in fiscal years 1995 through 1997; $281,000 in fiscal year 1998; $381,000 each in fiscal years 1999 and 2000; and $759,326 in fiscal year 2001. A total of $2,345,326 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In fiscal year 1995, non-Federal funds included $26,000 from state funds and $70,000 from industry memberships. In fiscal year 1996, non-Federal funds included $26,000 in state funds and $80,000 in industry funds. In fiscal year 1997, non-Federal funds included $35,000 in state funds and $95,000 in industry memberships. In 1998, $35,000 in state funds and $105,000 in private industry memberships contributed to the support of the project. During 1999, industry funds increased to $125,000, and state of Ohio match increased to $50,000. Data on fiscal year 2000 are not currently available.

Question. Where is this work being carried out?

Answer. Research is being conducted in the laboratories of the Ohio State University and at various participating companies in Ohio, Illinois, and Missouri.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional related objectives?

Answer. The principal investigator anticipates that all projects supported by the fiscal year 2000 grant will be completed by February 28, 2001, and for funds awarded in fiscal year 2001, the principal investigator anticipates completing the objectives by July 31, 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An agency science specialist conducts a merit review of the proposal submitted in support of the appropriation on an annual basis. The last review of the proposal was conducted on June 22, 2000. At that time, the agency science specialist believed that the projects addressed issues relevant to food manufacturing, were sci-

entifically sound, and that satisfactory progress was being demonstrated using previously awarded grant funds.

CENTER FOR NORTH AMERICAN STUDIES, TEXAS

Question. Please provide a description of the research that has been done under the Center for North American Studies, Texas program.

Answer. The purpose of this grant is to develop linkages with educational and other institutions in Mexico and Canada in order to share data and faculty, conduct research identifying trade opportunities and marketing problems, conduct policy analyses, and develop a broad range of training programs preparing agricultural firms for international marketing opportunities. The research proposal was peer reviewed at the university prior to submission to CSREES.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Center for North American Studies—CNAS—program director believes that citizens of the United States, Mexico, and Canada have some similar concerns about the impact of the North American Free Trade Agreement—NAFTA—and that new, innovative approaches involving international cooperation are needed to assess and evaluate these issues. Research and training are needed to provide information to evaluate alternatives for expanding U.S. exports and to resolve potential social, economic, and environmental conflicts.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The goal is to promote strong agricultural ties among the three North American countries, foster greater cooperation in resolving critical agricultural issues of common interest, and ensure the continued competitiveness of U.S. agriculture. Accomplishments over the last five years include: preparation of a briefing book on the millennial World Trade Organization—WTO—negotiations for agricultural leadership and Congressional staff; survey of 100 agribusiness firms to determine views on upcoming millennial WTO negotiations; research on "strategic intent" of southern Texas food marketing firms; continued investigation of technical trade barriers as a substitute for tariffs; a study of El Niño and La Niña on fruit and vegetable production; impacts of NAFTA on livestock, meat, feed, fruit, and vegetable trade; a range management watershed study along both sides of the Rio Grande River; and study of the competitive response of Texas food marketers to NAFTA. Since a new CNAS publication series was started in June 1998, seven applied research papers have been published. In 1999, the Center conducted 47 seminars/workshops for producers and agribusinesses to increase the international capacity of the U.S.; over 3,200 people attended. Collaborative work included a workshop on International Strategic Alliances workshop developed jointly with a Mexican and a Canadian university; an expanded database on Mexican agriculture; and a video conference for a Mexican agribusiness audience.

Question. How long has this work been underway, and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Work supported by this grant began with an appropriation of $94,000 in fiscal year 1994; $81,000 in 1995; $87,000 per year for 1996 through 2000; and $86,809 in fiscal year 2001. A total of $696,809 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: $39,000 State appropriations in fiscal year 1994; $54,000 in 1995; $60,000 in 1996 and 1997; $84,500 in 1998; and $80,000 in 1999 and 2000.

Question. Where is the work being carried out?

Answer. The program is being carried out at Texas A&M University through the Texas Agricultural Experiment Station in collaboration with other segments of the Texas A&M University System and Louisiana State University Agricultural Center.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1994 was for a period of 12 months. The current phase of the program will be completed in the year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation.

Answer. CSREES performed a merit review of the project in April 2000, as it evaluated the 2000 project proposal, and concluded that: "The project has sound objectives and procedures for helping U.S. firms to be successful in international markets and for helping policy makers understand the impacts of policies and trade agree-

ment alternatives. Therefore, the project contributes to CSREES goals of a highly competitive agricultural production system and enhanced economic opportunity for Americans. The principal investigator is well recognized for his leadership in this area."

CLIMATE CHANGE RESEARCH, FLORIDA

Question. Please provide a description of the research that has been funded under the Climate Change Research, Florida grant.

Answer. The research supported by this grant seeks to promote the effective use of climate information to improve decisionmaking within the agricultural sector in Florida. The primary objective is to reduce economic risk and improve the economic and social well being of Florida's rural population involved in agricultural production.

Question. According to the research proposal, or the principal investigator, what is the national, regional, or local need for this research?

Answer. The need for this research emerges from the growing capacity to forecast climatic anomalies at seasonal lead times suggesting an unprecedented opportunity to tailor agricultural decisions to anticipated weather conditions. This could include decisionmaking to either mitigate the impact of unfavorable conditions, or to take advantage of favorable conditions.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goals of the research include: to characterize stakeholder needs; uses and perceptions of climate forecasts; evaluate the usefulness of and limitation of climate forecasts; and to adapt and enhance research tools, methodologies, and data products required for translating climate forecasts into information required to support agricultural decision/policy making.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $170,000 and for fiscal 2001 is $169,626. A total of $339,626 has been appropriated to support this research.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Information on non-Federal funds and sources is not available.

Question. Where is this work being carried out?

Answer. This research is being conducted at the University of Florida, Gainesville.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. It is anticipated that work currently underway will be completed in September 2001.

Question. When was the last evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The research proposed to be funded by this grant has been reviewed and approved by three qualified experts identified by the institution in April 2000. In addition, the proposal has been reviewed by qualified staff in CSREES prior to the release of funds. No additional evaluation is anticipated until the research is complete.

COTTON RESEARCH, TEXAS

Question. Please provide a description of the research that has been funded under the Cotton Research, Texas grant.

Answer. Texas Tech Universities has developed an integrated research effort to address cotton production issues using a comprehensive approach in order to strengthen the cotton industry in the high plains. Priority production and marketing issues will be studied.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The proposed project is expected to help support a broad-based program to address priority research needs of cotton grown on the Texas high plain. The specific issues will include production, processing, marketing and utilization.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal of this project is to improve the economics of cotton production in West Texas and expand the demand for cotton grown in the area.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998. The appropriation for fiscal years 1998–1999 was $200,000 per year; $170,000 for fiscal year 2000; and $498,900 in fiscal year 2001. A total of $1,068,900 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds are from the state of Texas and provide salaries and benefits for experiment station employees. Funds supporting the project were $156,000 in fiscal year 1998; $149,000 in 1999; and $187,000 in 2000.

Question. Where is this work being carried out?

Answer. The work will be conducted at the Texas A&M University Research and Extension Center, Lubbock and Texas Technical University Campus, research facilities, and on area farms.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The principal investigators anticipate the project should be completed in fiscal year 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project received a comprehensive review and evaluation at its inspection by Texas A&M and Texas Tech Universities and CSREES National Program Staff. Each research project is peer reviewed annually, and the combined proposal is reviewed and approved by the institution.

CURRICULUM DEVELOPMENT/MISSISSIPPI VALLEY STATE UNIVERSITY

Question. Please provide a description of the research that has been funded under the Curriculum Development and Strengthening-Mississippi Valley State University grant.

Answer. Funds were used to strengthen academic programs, including accreditation and reaccreditation. Of the ten programs eligible for accreditation, nine have been accredited. Assessment of the criteria has begun for the one remaining eligible program. Academic programs have been broadened to include more agriculture-related courses consistent with the needs of students from the Mississippi Delta, students from other parts of the State, as well as out-of-state students. Curriculum additions have had a positive impact on student enrollment. Courses continue to be modified to reflect the needs of graduates as well as employers in the Mississippi Delta, with particular emphasis on those areas that employers have the greatest need. The funds continue to provide enhancements related to other program and administrative support areas that positively impact program delivery and administration at Mississippi Valley State University—MVSU.

Question. According to the research proposal, or the principal researcher, what is the national, regional or local need for this proposal?

Answer. The primary need for this project is to satisfy a local need. The need is for strengthening university capacity and curriculum development at MVSU. The Delta region is well known for its high level of poverty, high rates of unemployment, infant mortality, teen pregnancies and other chronic social problems. The MVSU Social Work Department is working diligently to improve the quality of life in the Delta counties and communities. In following the university's primary mission of teaching, the Social Work Department is offering an affordable quality education that is the key to overcoming many personal and social problems encountered by living in an impoverished agriculture environment. The Social Work Department offers an educational program that prepares professionals whose primary goal is to empower clients to overcome their personal and social problems.

Question. What was the original goal of this project and what has been accomplished to date?

Answer. The original goal was to provide funding to strengthen the academic programs of the university. This funding has strengthened the fiscal and academic areas of the university. The university's cash flow and cash availability have remained steady and sufficient all year long. Student recruitment has improved to show a positive ratio between applications received and students admitted. Approximately one-half of the applicants are enrolled. Increased quality of instruction and programs have benefitted students. This is reflected in the higher graduation rate, increased student enrollment, enriched faculty, and improved community relationship.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. This program was initiated in fiscal year 1987. Grants have been awarded from funds appropriated as follows: fiscal year 1987, $750,000; fiscal years 1988 and 1989, $625,000 per year; fiscal year 1990, $617,000; fiscal year 1991, $642,000; fiscal years 1992 and 1993, $668,000 per year; fiscal year 1994, $593,000; fiscal year 1995, $544,000; fiscal years 1996–2000, $583,000 per year; and $645,577 in fiscal year 2001. A total of $9,292,577 was appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Mississippi Valley State University received State and private funding during the period of this grant. The State figures provided here are for enhancement funds gained above the university's standard formula generated funds. The sources and amounts are as listed:

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Fiscal Year	State	Private	Total
1987	$0	$168,640	$168,640
1988	0	1186,036	186,036
1989	68,658	190,258	258,916
1990	207,879	369,358	577,237
1991	333,263	337,700	670,963
1992	349,427	470,220	819,647
1993	35,750	358,680	394,430
1994	590,890	568,970	1,159,860
1995	841,654	530,300	1,371,954
1996	1,197,917	590,824	1,788,741
1997	309,717	755,629	1,065,346
1998	313,738	538,423	852,161
1999	909,419	389,812	1,299,231
2000	1,416,455	424,070	1,840,525

Question. Where is this work being carried out?

Answer. These funds are intended to strengthen programs at Mississippi Valley State University. The program has been carried out on the campus at Itta Bena and at off-campus sites in Anguilla and Greenville and the Greenwood Center since the Spring Semester of 1996.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives completion date was June 1992, and the primary objective of erasing the financial deficit was accomplished at that time. The university has been operating on a sound financial basis as of July 1993. Academic program strengthening has progressed very well. The objectives of the current grant will be completed by September 30, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The program staff in the agency conducts an annual evaluation of reports submitted by the principal investigator. The evaluation reflects steady enhancement in curriculum development and improved support for strengthening administrative units. The academic and administrative organization is being expanded and initiatives are being designed to integrate in-service learning and undergraduate research into the academic curriculum. These initiatives are redefining the academic focus of the institution. Student life and services are being improved. Additionally, much attention is being devoted to teach education effectiveness. The Department of Natural Sciences and Environmental Health realizes that in an ever changing scientific technological environment, a labor force must be educated to meet the demands of the workplace and its employers. As such, the department hopes to foster an environment which meets the needs of students and faculty in the natural and environmental sciences by exposing them to different technologies and experiences that will make them competent and knowledgeable in their chosen fields. Of particular concern are those issues in the areas of aquaculture and agriculture.

Presently, these areas are under studied and constantly changing. More and more, genetically-engineered crops are being used to avoid problems with drought and pesticides. This raises various concerns about its impact on the consumers and the exosphere. Many catfish farmers are concerned about their fish in regard to the pesticides and herbicides that are being used on crops in the Delta. The Department of Natural Sciences and Environmental Health aims to upgrade its facilities and the abilities of its researchers to address these issues and share the gained knowledge in a forum of fellow scientists.

DATA INFORMATION SYSTEM QUESTIONS

Question. Please provide a description of system development activities that have been funded.

Answer. CSREES continues to fund activities under contract with a major information technology firm for the design and development of the Research, Education, and Economics Information System—REEIS. Previously funded tasks include the conduct of an inventory of databases targeted for inclusion in REEIS; a comprehensive assessment of information needs within the Research, Education, and Economics—REE—mission agencies and State partner institutions; design and development of a Web accessible catalog of databases identified in the inventory; a comprehensive review of state-of-the-art information technology systems available for use in developing the system; ongoing design and development of a REEIS proof-of-concept prototype; and conduct of a comprehensive interagency data modeling effort that identifies and describes data, data relationships, and sources of data from across the research, extension, education, and statistics domains of the REE mission agencies and State partner institutions. Also, a cooperative agreement with the University of Arkansas was established to provide national leadership in coordinating the efforts of a National Steering Committee charged with guiding the continuing development of the system. The Committee held its latest meeting in August 2000. Funding has also been provided under the REEIS initiative for the design and development of an Evaluation and Accountability System for Extension—EASE—which is targeted for linkage in REEIS.

Question. What is the national, regional or local need for this activity?

Answer. At present, USDA's REE mission area agencies and their university partners lack a central, integrated, user-friendly electronic information system capable of providing access to thousands of programs and projects for which they are responsible and which focus on food, agriculture, natural resources, and rural development. Such an information system is increasingly needed to enable the Department and its partners to readily conduct baseline and ongoing assessments and evaluations of research, education, extension, and economic programs and projects. In recent years, this need has become more urgent for several reasons. First, the United States needs a visionary publicly-funded research and development program to produce essential knowledge and innovations for meeting growing competition in a global market—which is largely attributable to the expanding research and development efforts of foreign nations. Second, a comprehensive information system is needed to serve as a primary reference source for development of new research and education programs on such diverse issues as increasing productivity in agriculture, processing and improving the safety and quality of food, and enhancing the sustainability of the environment and rural communities. Third, Federal/State policy makers and administrators are requiring empirical analyses to account for historical, current, and future use of public funds to provide a basis for redirecting funds to higher priority issues. Fourth, the Government Performance and Results Act—GPRA—has imposed reporting demands which current databases and decentralized information systems are not prepared to adequately satisfy. It is also envisioned that REEIS will play a key role in implementation of the Agricultural Research, Extension, and Education Reform Act—AREERA—of 1998. In this regard, REEIS would be well-positioned to:

—Provide linkages for decisionmaking among REE agencies;
—Enable consistent reporting on identical or similar issues;
—Provide the public with understanding of the role and mission of REE agencies;
—Expand REE's outreach to a broader base of constituencies;
—Provide a better vehicle to facilitate interaction among REE agencies and their university partners;—Link commonalities of research, extension, and teaching projects and programs through a single interface; and
—Foster global interactions.

The REEIS customer base includes not only the REE mission agencies and their state partners institutions but other Federal agencies that partner with the research, extension, and education components of the Department. The Department

of Education, the Department of Health and Human Services, the Department of Energy, the Department of Defense, the Environmental Protection Agency, and the National Science Foundation are among the Federal agencies that share and exchange data with the REE mission agencies and fund programs that address problems of mutual concern. Web-enabled access to data and information in the REEIS data store and state-of-the-art capabilities for manipulating and organizing the data will permit a greater knowledge base of information to be more easily shared among stakeholders pursuing common areas of interest. It is expected that Federal agencies with programs in food safety, natural resources and the environment, rural economics and community development, human nutrition, and science education, for example, will be key players in assisting the REEIS development team in refining many of the system requirements for REEIS. As full implementation of the system is realized, greater inter-agency communication and collaboration resulting from use of REEIS will lead to a strengthening of alliances across the Federal sector.

Question. What was the original goal of this initiative and what has been accomplished to date?

Answer. The original goal of this initiative was to develop an information system that provides real-time tracking of research, extension, and education projects and programs; has the capability to communicate vertically between field, State, and Federal locations; enables the REE agencies and their partners to conduct rapid and comprehensive policy assessments and program evaluation analysis; facilitates assessment of technologies and practices employed in extension, education, economics, and research activities at the field and/or regional levels; provides clear and transparent public access to relevant parts of the information; and provides information management tools to enhance the timeliness and accuracy of REE-wide responses to inquiries about program objectives and expenditures.

Since launching of the REEIS initiative, substantial system planning and development work has been completed. Work accomplished under a series of multi-task contracts with a private sector information technology firm was instrumental in meeting major milestones considered to be critical components and a prerequisite to the design, development, and implementation of REEIS. Major tasks included the conduct of a comprehensive strategic information audit of information needs within the REE agencies and partner institutions; the identification and inventory of major research, extension, education, and economics/statistics databases maintained or supported by the REE mission agencies; the design, development, and preparation of the REEIS database catalog prototype that affords Web access to the inventory of 38 databases initially identified as candidates for inclusion in REEIS; the design and evaluation of the Web interface to the REEIS database catalog; a comprehensive review of state-of-the-art information technology systems available for use in developing REEIS; the design and development of several iterations of a Web accessible REEIS proof-of-concept prototype; and the completion of a comprehensive REEIS interagency data modeling effort.

Activities completed in fiscal year 2000 included the development and assessment of alternative system architectures and the development and testing of a REEIS prototype populated with actual data from selected core databases.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Congress first appropriated $400,000 for REEIS in fiscal year 1997 to begin planning its design and development. The fiscal year 1998 appropriation was $800,000. This was followed by appropriations of $1,000,000 in fiscal year 1999, $2,000,000 in fiscal year 2000, and $2,120,325 in fiscal year 2001. A total of $6,320,325 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Non-Federal funding does not apply at this time.

Question. Where is this work being carried out?

Answer. Leadership responsibility for REEIS resides within the CSREES Science and Education Resources Development unit in Washington, D.C. This provides for effective linkage within the REEIS platform of the Current Research Information System, the Food and Agricultural Education Information System, and other appropriate research, extension, education, and statistics databases. The REEIS leadership works closely with the four REE mission agencies and the university system to ensure that primary users as well as key stakeholders are involved in the REEIS development process. A sizeable effort continues under contract with a major private sector information technology firm for the design, development, testing, and implementation of REEIS. Three staff persons, including a newly recruited REEIS director, are assigned full time to direct, manage, and coordinate agency and contracting

activities. Plans are to recruit several full time computer specialists to operate and maintain the system.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. Initial implementation of REEIS was targeted for fiscal year 2000. However, the need to satisfy Department requirements for justification of the information technology investment for REEIS has delayed the use of fiscal year 2000 funds for implementation. These requirements include the preparation of several preliminary reports that include a cost/benefit analysis, a security plan, telecommunications plan, risk analysis, and a system architecture. Preparation of these reports is currently in progress. A cooperative agreement with the University of Arkansas has been extended in order to conduct a series of joint application design sessions and preparation of detailed system requirement documents needed for initial implementation. Pending the release of fiscal year 2000 funds, initial implementation is to begin in fiscal year 2001 with completion targeted for the first half of fiscal year 2002. Finalization of complete system requirements is to follow. Required to achieve broad implementation is the need to conduct ongoing needs assessments within the mission area and with its partners to align information system products and services with strategic information requirements necessary for meeting agency mission and goals and satisfying GPRA reporting requirements. Updating and maintenance of technical system assessments, conducting ongoing information technology evaluations, and enhancements of REEIS user interfaces will be essential to ensure currency and responsiveness over the life of the system. Additional activities include enlistment, training, and retention of essential personnel and staff, and the enhancement of several legacy systems and databases to permit effective inclusion in REEIS.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Progress and accomplishments of the REEIS initiative continue to undergo review and evaluation by the REE mission agencies, the REEIS National Steering Committee, our State partner institutions, and outside sources. The most recent in-depth evaluation of the project was conducted in June 2000 by a Department-wide information technology review board. Factors considered in the evaluation included REEIS system objectives, cost control measures, project scheduling, performance considerations, security policy, system architecture recommendations, and level of support for the Secretary's priorities. A user evaluation of this project was conducted at the August 2000 meeting of the REEIS National Steering Committee comprised of representatives of the REE mission agencies, university partners, and key stakeholders. Committee members were presented the opportunity to critique the latest iteration of the REEIS proof-of-concept prototype in terms of its potential for responding to primary users, satisfying primary uses, and meeting priority system requirements. An independent verification and validation study is planned for fiscal year 2001. The study seeks to verify that results of development activities fulfill their requirements and validate that development products satisfy user needs under defined operating conditions.

GEOGRAPHIC INFORMATION SYSTEM

Question. Please provide a description of the research that has been funded under the Geographic Information System program.

Answer. The purpose of this program is to promote collaborative and innovative transfer of systems technologies to state and local governments and others in the public and private sectors. The current program is being carried out by the non-profit National Consortium for Rural Geospatial Innovations in America—RGIS. The directors and participants of the Consortium are the sub-contractors who are carrying out the program by working on agro-environmental problems at the national, regional, state and neighborhood levels. They represent a wide spectrum of site-based expertise including six academic institutions, one regional development authority, and the Southwest Indian Polytechnic Institute site added by Congress in 1997. This institutional arrangement has helped fill a role in linking some of the otherwise disparate efforts of agencies and academic institutions to apply them now in seven regions of the country.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher believes that local officials are facing increasingly complex land management issues that require rapid access to resource knowledge and databases for decision making. This project is needed to transfer relevant

technology to state and local governments, including Native American communities whose limited training budgets and sometimes-isolated location make it difficult to use the latest technology. The technology developed by the Consortium is useful in improving the management of natural resources. While concentrating on issues related to agriculture, the independent, non-profit nature of the National Consortium for Rural Geospatial Innovations in America facilitates linkages across disciplinary and institutional barriers and makes it possible to use analyses at the state and local levels which were initiated at the Federal level. While the early phases of the geographic information system concentrated on building information systems related to rural, physical, and natural resources, the current challenge is to integrate human economic, social, and demographic information in order to better understand the relationship of human communities to the landscape. At the other end of the spatial scale, the role of the public sector in geographic information system-based precision farming technologies, data capture, and information synthesis is the subject of a current study group.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this work was to serve as a pilot project for the transfer of geographic information systems technology related to natural resources to local governments. The Consortium has carried out this function. Economic and biological data are being presented in various formats to state and local governments and individuals. Through its seven regionally-distributed sites, including the new Southwest Indian Polytechnic Institute site in New Mexico, the Consortium has implemented a variety of geographic systems technologies to local governments—both rural and urban. These include the recent expansion of transfer of geographic information technology through various distance education and Internet technologies. It is anticipated that the fiscal year 2001 grant will support work under this program through March 2002. The proposal for this work in 2000 has been received and reviewed.

Question. How long has this work been under way and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1990, $494,000; fiscal year 1991, $747,000; fiscal years 1992 and 1993, $1,000,000 per year; fiscal year 1994, $1,011,000; fiscal year 1995, $877,000; fiscal year 1996, $939,000; fiscal years 1997 through 1999, $844,000 per year; fiscal year 2000, $850,000; and fiscal year 2001, $1,022,745. A total of $10,472,745 has been appropriated since the beginning of the program.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. For fiscal year 1990 through fiscal year 1997, to date, the work in this program had $5,009,834 in non-Federal support. In fiscal year 1990, non-Federal support was $714,940 consisting of equipment, databases, and other miscellaneous contributions from foundations, city, and state governments. In fiscal year 1991, non-Federal support was $25,000 from county government. In fiscal year 1992, non-Federal support was $366,016 from county government, computer companies, and state governments consisting of equipment, software, facilities, and miscellaneous support. In fiscal year 1993, non-Federal support was $713,900 consisting of financial and miscellaneous support from foundations, county, and state governments. In fiscal year 1994, the non-Federal support was $713,643; in fiscal year 1995, the non-Federal support was $987,000; in fiscal year 1996, it was $567,173; and in fiscal year 1997, it was $456,582. In 1998–2000, non-Federal dollars exceeded $1,000,000, and it is anticipated that they will again in 2001.

Question. Where is this work being carried out?

Answer. The National Consortium for Rural Geospatial Innovations in America is administratively centered at the University of Wisconsin-Madison. The University of Wisconsin-Madison, functioning as the Great Lakes and Administrative center, continues a long history of involvement in the application of this technology at the local level with strong focus on soils/land-use and the institutional aspects of the integration of a new technology.

The southeastern center in Valdosta, Georgia, in affiliation with the South Georgia Regional Development Center, has developed a comprehensive plan of the City of Adel as a model for other urban centers in the 10-county region.

The southwestern center, in Fayetteville, Arkansas, serves several local governments through its training facilities at the University of Arkansas, basing its technical approach on expertise and past experiences with the Federally-developed system known as GRASS. They have developed pilot projects for some local jurisdictions and state level databases, which they have provided online.

Central Washington University focuses on training for state planning and on three local governments and the Yakima Nation in the Yakima watershed.

The north central center in Grand Forks, North Dakota, in affiliation with the University of North Dakota, focuses on relating real time weather data to other spatial attributes.

Native American communities are being reached through the newly-developed Southwestern Indian Polytechnic Institute facilities in Albuquerque, New Mexico.

Two new sites were added in fiscal year 1999. They are Pennsylvania State University and the Geographic Information Systems Consortium at Wilkes University and Kings College in Pennsylvania. These two sites have replaced the NCRI-Chesapeake site and will be involved in providing Geographic Information Systems solutions to environmental problems that local government and regional planning commissions are dealing with in the Upper Susquehanna/Lackawanna Watershed.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objectives to build institutional frameworks for developing and disseminating geographic and related information to local decision makers is constantly evolving. Each site has developed approaches to addressing regional needs for modern technologies, and many innovative applications have been implemented. Technologies, including Internet-based educational and information exchange, have been developed to respond to the Consortium's customers. The Consortium has been asked to include these new technologies in order to bring its primarily rural users into new eras of public education and information management.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Proposals have been internally reviewed by Departmental personnel in different agencies. Beginning in 1995, the program has also been externally reviewed by local advisory committees and qualified professionals inside and outside of government. Their various comments and suggestions are sent to the agency and have helped with the favorable merit reviews. A 3-day review of the program was conducted in November 2000 by Departmental personnel in conjunction with a satellite training broadcast of Geographical Information Systems technologies to tribal colleges. The program was found to be making good progress towards objectives and producing useful documents for their clientele.

GERMPLASM DEVELOPMENT IN FORAGE GRASSES, OHIO

Question. Please provide a description of the research that has been funded under the Germplasm Development in Forage Grasses, Ohio grant.

Answer. This project was initiated in fiscal year 2000 as a subcontract under the Hydroponic Tomato Production grant funded at $100,000 and was funded as a stand alone grant for 2001. The goals of the program are to identify and clone genes responsible for apomixis and to use them to develop apomictic germplasm in commercially-important grasses such as corn, wheat, and rice. Apomixis is the development of seed embryos without fertilization which produces offsprings identical to the parent plant and greatly speed up development of new plant cultivars.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. These three grain crops are grown world wide and are the principle food source for much of the world's population. The apomictic character which can freeze the genetic make up of the first generation following cross breeding, equatorial to negative reproduction, greatly speeds up the development of new cultivars. This could be a major contribution toward feeding the world's growing population. This work has national and international impact.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to identify and clone the genes responsible for apomixis in grass plants and to use them to develop improved germplasm for important grain crops such as corn, wheat, and rice. To date five RNA clones from an apomictic forage grass have been sequenced, and their gene expression is being evaluated.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $99,780.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal finds and sources provided for this grant were as follows: $68,400 state appropriations in fiscal year 2000.

Question. Where is this work being carried out?

Answer. Research will be conducted at the University of Toledo and Miami University of Ohio.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is estimated by the principal investigator to be 2005.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last agency evaluation was in a fiscal year 2000 review and evaluation of the subcontract of the Hydroponic Tomato production Special Research Grant Proposal which was performed by CSREES National Program Staff. DNA sequences for gene segments from Tripsaum dactyloides have been isolated and sequenced. This will be used to map and identify value-added genes.

GULF COAST SHRIMP AQUACULTURE

Question. Please provide a description of the research that has been funded under the Gulf Coast Shrimp Aquaculture grant.

Answer. The Oceanic Institute and the Gulf Coast Research Laboratory have submitted a grant proposal that is currently under review. The research has addressed three major areas of research including broodstock development, aquatic animal health, and the development of economically viable biosecure culture systems. Researchers are developing improved high health stocks of marine shrimp with enhanced production traits and resistance to specific viral pathogens. The program continues to respond rapidly to the viral diseases and emerging pathogens that have significantly impacted the U.S. shrimp farming industry. Efforts to identify important viral pathogens and develop enhanced detection methods for these pathogens continues. Studies aimed at preventing new introductions of exotic viral pathogens in commercial and wild shrimp stocks have intensified. Technologies to enhance biosecure broodstock, hatchery, and production facilities are being developed and refined.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal researcher indicates that there is potential to enhance domestic production of marine shrimp through aquaculture in order to reduce the approximately $3 billion annual trade deficit in marine shrimp. Research is directed at the critical needs of the industry including improved supply of high quality seed, improved shrimp health management, improved biosecurity and environmental protection, and enhanced production efficiency in shrimp culture systems. The U.S. has the opportunity to become a major exporter of shrimp seed and improved broodstock, disease control and biosecurity technologies, products, and services.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal was to increase domestic production of marine shrimp through aquaculture. High-health, genetically-improved, and specific pathogen-resistant stocks have been developed and evaluated under commercial production conditions. These improved stocks serve as the genetic base for most of the commercial shrimp production in the U.S. Researchers have responded to severe disease outbreaks caused by the introduction of exotic viral pathogens into U.S. Studies have focused on the prevention and detection of shrimp viral diseases which have decimated domestic commercial production. Biosecure and environmentally-compatible production systems have been developed that have enhanced U.S. production technology. Diagnostic and disinfection techniques for a number of important viral pathogens have been developed.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Grants have been awarded from funds appropriated as follows: fiscal year 1985, $1,050,000; fiscal year 1986, $1,236,000; fiscal year 1987, $2,026,000; fiscal year 1988, $2,236,000; fiscal year 1989, $2,736,000; fiscal year 1990, $3,195,000; fiscal year 1991, $3,365,000; and fiscal years 1992–1993, $3,500,000 per year; fiscal year 1994, $3,290,000; fiscal year 1995, $2,852,000; fiscal year 1996, $3,054,000; fiscal years 1997 through 2000, $3,354,000, per year; and $4,167,811 in fiscal year 2001. A total of $49,623,811 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The U.S. Marine Shrimp Farming Consortium estimates that non-Federal funding for this program approaches 50 percent of the Federal funding for fiscal years 1991–2001. The source of non-Federal funding is primarily from state and miscellaneous sources. There is also substantial in-kind contributions from commercial cooperators.

Question. Where is this work being carried out?

Answer. The work is being carried out through grants awarded to the Oceanic Institute in Hawaii and the Gulf Coast Research Laboratory in Mississippi. Research is also conducted through subcontracts with Tufts University, the Waddell Mariculture Center in South Carolina, the Texas Agricultural Experiment Station, and the University of Arizona.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original specific research objectives was 1987. The original specific objectives have been met, however new challenges to the U.S. farm-raised shrimp industry continue the need for shrimp culture research. Researchers anticipate that the specific research outlined in the current proposal will be completed in fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project proposal is reviewed annually by the agency's Program Managers and the Program Specialist. The fiscal year 2000 agency evaluation concluded that the research objectives were clearly stated and the proposed research was consistent with the National Science and Technology Councils—NSTC—Strategic Plan for Aquaculture Research and Development. Facilities and expertise were very good, and the research activities were closely linked to the U.S. shrimp farming industry with the industry cooperating in many components of the research. The agency conducted an on-site review of this program in October 1999. The external review team indicated that the quality of the science was high, that researchers continue to provide information critical to the development of the shrimp farming industry in the U.S., and that the overall Consortium management was excellent.

LIVESTOCK MARKETING INFORMATION CENTER, COLORADO

Question. Please provide a description of the research that has been done under the Livestock Marketing Information Center, Colorado program.

Answer. The Livestock Marketing Information Center—LMIC—is a well-respected source of market-related data and analyses for the livestock sector. Direct participants in the Center include 23 universities, 3 USDA agencies, and 8 private sector organizations. Livestock producers, livestock firms, and State and Federal agencies, and other institutions also access its data and information. The grant has significantly enhanced the ability of the Center to provide objective analyses of livestock markets and make recommendations to livestock producers.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Recent changes in the structure of the livestock industry and in farm legislation have forced producers to pay more attention to market signals. Market prices have become more volatile because of changing domestic and international markets, thereby increasing producers' need for high quality market information and interpretation.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The goal is to increase the ability of livestock producers to make economically-sound business decisions in a changing global economy.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by the grant began in fiscal year 2000 with an appropriation of $170,000, and $184,593 in fiscal year 2001. The total amount appropriated is $354,593.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Center includes a consortium of faculty from 23 universities; participating universities contribute about $170,000 of non-Federal funds a year.

Question. Where is this work being carried out?

Answer. The work will be carried at the Livestock Marketing Information Center, Denver, Colorado, in cooperation with Colorado State University and 22 other universities.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original project was a period of 12 months, ending in May 2001. However, there are ongoing needs for timely analysis to support decisionmaking processes of livestock producers and others in the livestock industry.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in March 2000, as it evaluated the 2000 project proposal, and concluded that: "LMIC is a excellent home for this project. It has been recognized in a number of awards and is a leading institution in the adoption of electronic technology since the early 1980s, making its data and information readily available on the Internet for easy access and customized output. The principal investigator and staff have the attitudes, skills, and abilities to do an outstanding job. The project is consistent with CSREES' goals of a globally-competitive agricultural system and enhanced economic opportunity."

MARICULTURE, NORTH CAROLINA

Question. Please provide a description of the research that has been funded under the Mariculture, North Carolina grant.

Answer. The agency requested that the university submit a grant proposal that has yet to be received. The long-term goal of the project is to develop methods for mass propagation of marine finfish for commercial cultivation and possible stock enhancement. Specific objectives address improved control of reproduction, broodstock husbandry practices, growout technologies, larval rearing, and analysis of intensive production systems in selected marine finfish species including the southern flounder and the black sea bass.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal investigators forecast an increasing need for the development of aquacultural production systems and methodologies for a variety of marine finfish. Results from this research will have broad application in the identification and development of marine species with commercial potential in the U.S.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research program was to develop sustainable aquaculture production systems for marine finfish. Captive mutton snapper were successfully matured and spawned, and the resulting larvae reared through the juvenile stages. Juveniles were supplied to commercial and governmental organizations for commercial grow-out trials. Initial results appear promising with good survival rates and excellent feed conversion ratios. Current research involves southern flounder and black sea bass and focuses on controlling reproduction, developing broodstock husbandry practices, evaluating stocking densities, optimization of environmental factors and feeding regimes for larval rearing, and evaluating production economics in intensive systems.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998. The appropriation for fiscal year 1998 was $150,000; for fiscal years 1999 and 2000, $250,000 per year; and for fiscal year 2001, $324,285 was made available. A total of $974,285 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The university estimates that approximately $115,000 of non-Federal funds were provided for this project in fiscal year 1998; $61,941 were provided for fiscal year 1999; and $125,000 for fiscal year 2000. These funds came primarily from state and private sources.

Question. Where is this work being carried out?

Answer. The research will be conducted at the Center for Marine Science Research at the University of North Carolina at Wilmington.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The project was initiated in fiscal year 1998. The original goals that were to be completed in fiscal year 2000 have been met. The anticipated completion date for the current proposal is fiscal year 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The fiscal year 2000 agency evaluation concluded that the proposal was well-written and the objectives were clearly stated. The methodology and experimental design were sound, and the research was relevant and addressed a potential opportunity for the aquaculture industry. Facilities were excellent and have been enhanced through this program. The research team was well qualified and had the appropriate expertise. The proposed research is consistent with national goals and needs outlined in the National Science and Technology Councils—NSTC—Aquaculture Research and Development Strategic Plan.

NATIONAL ALTERNATIVE FUELS LABORATORY, NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the National Alternative Fuels Laboratory, North Dakota grant.

Answer. Through a nationally-marketed collaboration program in which the National Alternative Fuels Laboratory matches about half of its Federal funding with non-Federal money to work on industry-relevant research, the National Alternative Fuels Laboratory staffs have developed a Federal Aviation Administration-certified lead-free ethanol- and biodiesel-containing alternative to leaded aviation gasoline that is now commercially available in South Dakota, and will be introduced at airports throughout the U.S. in a year or two in response to increasing pilot demand. They have resolved ethanol-in-gasoline performance and environmental issues to accelerate the use of ethanol, and they have initiated new biomass fuel developments, including processes, to produce Environmental Protection Agency-approved, high-octane, emissions-cleaning gasoline additives from agricultural resources. In addition, they have initiated and coordinated the 27-member Red River Valley Clean Cities Coalition to increase the number of alternative fuel vehicles in regional public and private fleets and have built E85 refueling sites in North Dakota.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. Our nation needs to develop commercially-viable alternatives to fossil fuels to ensure energy security, improve air quality, and provide employment and economic development opportunities. It is crucial to national security and economic development that these new fuels are accurately represented in the marketplace and given an opportunity to compete fairly with traditional fossil fuels. The National Alternative Fuels Laboratory provides unbiased scientific data on fuel performance and environmental effects. Regional need for the research derives from the need to support regional agriculture and associated industries through development of new biomass fuel industries based on new crops and conventional crop residues, and development of economic uses for agricultural co-products.

Question. What was the original goal of this research, and what has been accomplished to date?

Answer. The primary original goal was to develop a database of at-the-pump-sampled conventional, reformulated, and alternative transportation fuels sold in the upper midwest and throughout the U.S. to enable comparison of current and historical fuels on the basis of chemical and physical properties. This fuels database is being expanded to include how gasoline chemistry affects air quality and fuel performance. Another original goal was to provide information on conversion of crop residues, agriculture processing wastes, high-cellulose-content municipal wastes, and other biomass materials to alternative fuels. The National Alternative Fuels Laboratory program supported North Dakota's first two public E85 refueling sites, initiated an ongoing industry-supported effort to develop and build a new agricultural co-product-to-carboxylic acid plant in the Grand Forks region—carboxylic acids are building blocks for bio-based polymers and fuels—helped resolve ethanol blend evaporative emissions issues and E85 engine cold-start problems, and initiated an ongoing industry collaboration to demonstrate the viability of producing and utilizing biomass-based clean-burning gasoline and diesel fuel additives.

Question. How long has this work been under way, and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The National Alternative Fuels Laboratory work began in fiscal year 1991 and was, in part, sponsored by this grant. Federal appropriations in fiscal year 1991 through fiscal year 1993 were $250,000 per year. Later awards were $235,000 in fiscal year 1994; $204,000 in fiscal year 1995; $218,000 per year in fiscal years

1996 through 2000; and $258,430 in fiscal year 2001. A total of $2,537,430 has been appropriated over 11 years.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. To date in fiscal year 2000, $80,000 in non-Federal collaborative funding has been secured from Kraus Group Inc., an alternative fuels infrastructure developer, and the American Lung Association of Minnesota. A total of $1,240,000 in non-Federal funds has been secured for performance of the National Alternative Fuels Laboratory program objectives over the duration of this grant. During fiscal year 1991 through fiscal year 1993, non-Federal funding from the state of Illinois totaled $630,000. For fiscal year 1994, non-Federal funding of $105,000 was secured from the American Corn Growers' Association, the Renewable Fuels Association, and others. For fiscal years 1995, 1996, 1997, 1998, and 1999, non-Federal funding totals of $50,000, $60,000, $140,000, $90,000, and $95,000, respectively, were secured from corn grower organizations, state agriculture departments, alternative fuels technology companies, and regional economic development agencies.

Question. Where is this work being carried out?

Answer. The work is performed at the University of North Dakota Energy and Environmental Research Center in Grand Forks. The Center is a research, development, demonstration, and commercialization facility that employs about 200 scientists, engineers, and support personnel.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The completion date for the original objectives was April 30, 1992. The objectives were met. The work was then expanded to include partnerships with industry and agriculture. The National Alternative Fuels Laboratory has been established as a center of expertise for development and demonstration of bio-based fuels, investigating fuel chemistry effects on engine performance and air quality, dissemination of accurate and objective information regarding ethanol in gasoline, and ethanol feedstock assessment and process development. Additional tasks include commercializing an ethanol-based aviation gasoline, implementing industry collaborations to produce carboxylic acids and fuel additives from regional agricultural resources, and administering the Red River Valley Clean Cities Coalition. These tasks should be completed by 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of this project is conducted annually based on the annual progress report and discussions with the principal investigator, as appropriate. The review is conducted by the cognizant staff scientist who has determined that this research is in accordance with the mission of the agency.

NATIONAL CENTER FOR PEANUT COMPETITIVENESS, GEORGIA

Question. Please provide a description of the research that has been done under the National Center for Peanut Competitiveness, Georgia grant.

Answer. The grant supports an interdisciplinary research and education program to enhance the competitiveness of the U.S. peanut industry by examining alternative production systems, developing new products and new markets, and improving product safety.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. Peanuts are a very important crop in several southern states. In many counties, peanuts provide more than 50 percent of all crop income. Peanut producers have been major beneficiaries of government income protection programs, but Federal farm and trade policies are changing and producers must become more competitive and market oriented.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The project helps peanut producers be more competitive in the global market. Recent accomplishments follow. An expert management system adapted to hand-held computers enables county agents to meet farmers in the field and recommend least-cost weed control practices, thereby saving farmers several dollars in chemical costs and placing less burden on the environment. An interdisciplinary team developed a disease-risk index model that successfully predicts the likelihood of disease and economic result. Ongoing research is helping to develop expert decision support systems to enable producers to improve their competitiveness. New

production practices such as twin-row planting patterns and strip-till production practices are being evaluated in several locations.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998. Appropriations have been as follows: $150,000 in fiscal year 1998; $300,000 in fiscal years 1999 and 2000; $399,120 in fiscal year 2001. Total appropriations to date total $1,149,120.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are as follows: in fiscal year 1998, the state of Georgia contributed $141,181 and the state of Alabama, $15,000; in 1999, the state of Georgia contributed $504,354 and the state of Alabama, $67,553.

Question. Where is this work being carried out?

Answer. The Center is located at the University of Georgia at Griffen and involves university cooperators from nearby peanut producing states, such as Auburn University in Alabama and the University of Florida.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1998 was for a period of 36 months, however, the need to improve the competitiveness of U.S. peanut growers continues to grow. The current phase of the program will be completed in 2003.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed a merit review of the project in July 2000, when it evaluated the current year's project proposal, and concluded that: "The project has sound objectives and procedures for helping the U.S. peanut industry become competitive, thereby contributing to the CSREES goals of a highly competitive agricultural production system and enhanced economic opportunity for Americans. The principal investigator and other faculty named in the proposal are recognized for their leadership in the industry. The subcontracts with Auburn University and University of Florida are appropriate and help to create a true regional effort."

PM–10 STUDY, WASHINGTON

Question. Please provide a description of the research that has been funded under the PM–10 Study, Washington research grant.

Answer. The PM–10 Study in Washington addresses the effects of emissions of PM–10 and PM–2.5 sized particulates, or dust, from agricultural land on air quality and development of control strategies. These studies are being conducted by scientists at the University of California-Davis and the Washington State University, in cooperation with Federal, state, and local agricultural, environmental, and health agencies and farmers and growers in both states. The California program had focused on developing and refining methods to accurately measure and detect the sources of PM–10 and PM–2.5 emissions from various agricultural-susceptible California crops and soils. In addition, the California research had been expanded to include dust and gaseous emissions from cattle feedlots, dairies, and the poultry industry. The Washington State University scientists are using refined instruments on field sites to measure and predict the effects of wind erosion and agricultural practices in the Columbia River Basin region on PM–10 and PM–2.5 emissions, under both natural wind erosion and with portable wind tunnel studies. Alternative cropping and tillage practices, residue management, and weed control practices are being developed and compared for control of PM–10 and PM–2.5 emission pollution under Columbia River Basin conditions. Models using regional weather data have also been developed in Washington to predict potential air quality degradation by PM.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. There has been growing national concern over the potential health and safety aspects of air pollution from dusts and suspended particulate matter resulting in passage of the 1990 Clean Air Act, as well as state air quality laws in both California and Washington. Because of particular problems from PM–10 and PM–2.5 emissions in the arid regions of the Western U.S., research on the role of agricultural operations in intensively cultivated soils—such as in California and the Columbia River Basin—as sources of PM–10 and PM–2.5 pollution will assist growers

to develop alternative agricultural management practices to control PM–10 and PM–2.5 emissions is critical.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goals of this research were to measure the PM–10 emission rates from significant crop and tillage practices, to determine the source of PM–10 emissions on soils in agricultural regions of central and southern California and the Columbia River Basin in the Pacific Northwest, and to explore cost-effective alternative agricultural practices to control these emissions. More recently, studies of finer PM–2.5 particulates have been included because of their recognized potential health risks. In California, field measurements were continued on both PM–2.5 and PM–10 emissions on production practices on almonds, figs, walnuts, cotton, wheat, and on ammonia emissions from dairy farms and feedlots. Similar studies in the Columbia River Basin are being conducted in Washington on a number of agricultural practices in the rain-fed and dryland croplands. Susceptible climatic and soil conditions and tillage and cropping practices have been identified and are being used to develop prediction tools to assist growers to adopt alternative practices to reduce potential air pollution by PM–10 and PM–2.5 particulate emissions. During 1998, an intensive study was undertaken to evaluate emission differences in almond harvesters. Data have been taken in California to assess land preparation techniques.

A Light Detection and Ranging system has been developed at the University of California-Davis that makes it possible to take a snapshot of the shape of an emission plume from a source such as a harvester and make estimates on the amount of particulate material emitted into the atmosphere and its subsequent transport. Efforts continue to calibrate the Light Detection and Ranging System. New predictive tools are being developed by Washington to predict dust storms from extreme weather events.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in March 1994. The appropriation for fiscal year 1994 was $940,000; fiscal year 1995, $815,000; for fiscal years 1996 through 2000, $873,000 per year; and for fiscal year 2001, $435,041 for Washington State University only. California was not funded under this grant for fiscal year 2001. A total of $6,555,041 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. In California, the program is matched by State funds in the form of salaries, benefits, and operating costs. In Washington, there were no state or non-Federal funds in support of the PM–10 project in 1994 and 1995. In 1996, state support was $22,566, and in 1997, state support was $102,364. Similar funding was continued in 1998 to 2000.

Question. Where is this work being carried out?

Answer. Previous work was being directed by participating scientists at the University of California-Davis and currently by scientists at Washington State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date of the original objectives of this project is 2001. The first four objectives of the project on soil particle characterization were anticipated to be completed in 1999. The objectives on field control will continue. In 1998, a manual for practices was developed and circulated for use by growers in Washington State to reduce wind erosion on agricultural land. Implementation and development of these management practices will be a major role of this project in the future. Quarterly and annual reports on the Washington State project to date are available.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency's Program Manager annually reviews the research progress reports and proposed new research and attended the last annual meeting of the program to assess progress in December 2000. The program is also evaluated each year by technical, administrative, and agency personnel. Progress is reported at research review meetings three times a year, with the November 1998 advisory committee members. A formal on-site review by a panel of experts was conducted of the Washington program in November 1997.

PRECISION AGRICULTURE, ALABAMA GEOSPATIAL TRAINING AND APPLICATION CENTER

Question. Please provide a description of the research that has been funded under the Precision Agriculture, Alabama Geospatial Training and Application Center grant.

Answer. This grant will develop training programs for farmers in the use of Global Positioning Systems, Geographical Information Systems, Remote Sensing and Variable Rate Technology for precision farming application.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. This project will focus on the southeastern area of the U.S. However results will apply to any location where precision farming is applied.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this project is to provide training for farmers and agricultural service representatives in the use of precision farming technology.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and was funded at $425,000, and in fiscal year 2001 is funded at $585,709. The total appropriation is $1,010,709.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The estimate for non-Federal funds from state appropriation and other sources was $300,000 for fiscal year 2000.

Question. Where is this work being carried out?

Answer. The project will be conducted at the U.S. Space and Rocket Center Huntsville, Alabama, and the Tennessee Valley Research and Extension Center at Belle Minci, Alabama.

Mr. Skeen. When was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is 2004.

Mr. Skeen. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project was peer reviewed and subjected to the project review and approval process by the submitting organization. In addition, each proposal is reviewed by CSREES National Program Staff.

PRECISION AGRICULTURE/TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER, ALABAMA

Question. Please provide a description of the research that has been funded under the Precision Agriculture/Tennessee Valley Research and Extension Center, Alabama grant.

Answer. The Precision Agriculture Tennessee Valley Research and Extension Center Project will focus on evaluating and demonstrating the utility of geospatial applications to crop production in the area. The work will cover issues such as: Global Position Sensor, variable rate applicators, yield monitor, computer software and soil moisture monitoring equipment. This is a cooperative effort with the Geospatial Training and Application Center Project and will provide field laboratory for hands-on training of participants in that training program.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The activities of this program will be carried out in the Tennessee Valley of Alabama, however, the training supported in part by this project will have boarder application and therefore could have regional and national significance.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this research is to evaluate precision technologies at the Tennessee Valley Research and Extension Center for applications to site-specific farming and to support training in the use of those technologies.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This work started in 2000 as part of the Precision Agriculture, Geospatial Training Center Project and was funded in 2001 as a separate stand alone project. The appropriate for fiscal year 2001 is $146,677.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were estimated at $97,000 for fiscal year 2000.

Question. Where is this work being carried out?

Answer. Research will be conducted at the Tennessee Valley Research and Extension Center and area farmers fields.

Question. When was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is 2004.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project was peer reviewed at the institution and was subjected to the project review and approval process. In addition it was reviewed by CSREES National Program Staff.

SUSTAINABLE AGRICULTURE DEVELOPMENT, OHIO

Question. Please provide a description of the research that has been funded under the Sustainable Agriculture Development, Ohio grant.

Answer. A proposal has been requested from the University of Toledo. The principal researcher has indicated that the proposal will address the building of capacity and international linkages between universities in the U.S. and in Lebanon.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. The principal research has indicated that the globalization of agriculture has led to a need to increase international interactions in research and education.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. According to the project leader, the general goal will be to build research capacity among universities in the U.S. and Lebanon in biotechnology. This goal will be accomplished through support for research and training of Master's degree students at the American University of Lebanon and through the training of students from Lebanon for Ph.D. degrees at the University of Toledo and the Ohio State University. Research and training under this project will include the identification and analysis of plants native to Lebanon with potential medicinal, bioactive, or ornamental value. Since the proposal has not yet been funded, there are no accomplishments to report to date.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $473,955.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Since the project has not yet been funded, there are no non-Federal funds to report at this time.

Question. Where is this work being carried out?

Answer. The work is expected to be carried out in the U.S. and Lebanon by the University of Toledo, the Ohio State University, and the American University of Beirut.

Question. What was the anticipated completion date for the original objectives of this project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The objectives and completion date have not yet been determined.

Question. When was the last agency evaluation of this project? Provide a summary of the last agency evaluation conducted.

Answer. No evaluation has yet taken place since the project has not yet begun.

URBAN SILVICULTURE, NEW YORK

Question. Please provide a description of the research that has been funded under the Urban Silviculture, New York grant.

Answer. This is a new project thus a precise description of the research to be conducted is not currently available. The general focus however is "types of greenery most conducive to solving air quality problems in the Mott Haven and Hunts Point neighborhoods of New York City."

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. At this writing, a proposal has not been received. The grantee is conducting a thorough literature review and will submit a proposal in conjunction with

the outcomes of the literature review. The requested date for proposal submission is April 30, 2001.

Question. What was the original goal of this research and what has been accomplished to date.

Answer. The original goal is to determine the types of vegetation and planting design(s) most conducive to ameliorating air quality conditions in the Mott Haven and Hunts Point neighborhoods in greater New York City.

Question. How long has the project been under way, and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. Other than a literature review, which is ongoing, the project has not begun. The total fiscal award, and the fiscal year 2001 award are identical $237,476.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. The source and amount of non-Federal funds has not been disclosed as the grantee is still working on the original proposal.

Question. Where is the work being carried out.

Answer. The project has not yet begun, but research sites are targeted for the Mott Haven and Hunts Point areas of greater New York City.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion dates of additional or related projects?

Answer. The work has not begun thus no objectives have been met. The grantee will likely structure their original investigative work over a two-year time span and reflect in their proposal that this time span will only allow for the establishment of multiple research designs, not quantitative air quality amelioration results.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. The agency has not conducted an evaluation of this project. CSREES' project administrator traveled to New York City on January 18, 2001 to meet with Congressman Serrano's office and the grantee regarding the nuances of grant proposals originating under the Federal Administration sector of CSREES' budget.

WATER QUALITY, ILLINOIS

Question. Please provide a description of the research that has been funded under the Water Quality, Illinois grant.

Answer. The Illinois Groundwater Consortium grew out of a fiscal year 1990 appropriation of $500,000 to Southern Illinois University at Carbondale to focus on the short- and long-term effects of agricultural chemical contamination on the state's environment, on groundwater quality and quantity, and ultimately, on human health and welfare. As a result of this appropriation, the university joined forces with the Illinois State Geological Survey, the Illinois State Water Survey, the University of Illinois Cooperative Extension Service, the University of Illinois Agricultural Experiment Station, and shortly thereafter, the Edwardsville Campus of Southern Illinois University, to create the Illinois Groundwater Consortium. The Consortium's primary mission, then and now, is to work effectively toward providing a solid scientific basis for agricultural chemical management and regulatory decision affecting Illinois groundwater. The consortium has worked to address the concerns of the agricultural and agrochemical industries, as well as the valid concerns of the agencies charged with protection of environmental quality. Projects supported with consortium funding are peer-reviewed by researchers at 30 different universities and agencies from across the Nation, and results are presented, critiqued, and published annually at the Consortium's Research and Planning Conference.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. According to some estimates, Illinois depends on groundwater for nearly half of its water usage, with the downstate region being most heavily dependent on groundwater sources. The quality and quantity of groundwater resources in Illinois are of critical concern for the entire estate, from safe drinking water supplies to the rapidly growing urban northeastern region to reliable irrigation waters in the agriculturally-oriented south.

Between 1996 and 1999, research funded by the Illinois Groundwater Consortium was targeted to studies of the impacts, recovery, and remediation of groundwater supplies following the Midwestern region after flooding. The extensive 1993–1994 flooding of the Mississippi, Missouri, and Illinois Rivers and their tributaries had devastating effects on the farmlands, communities, and natural resources of the area. These effects have major implications for agricultural practices, water quality, and public policy decisions. This natural catastrophe resulted in a need for further

research into the impact of the flooding on surface/groundwater, soils, and their rehabilitation, biodiversity, and economic and public policy in the region.

The more recent focus of the Consortium is on the impacts on groundwater of land use practices and changes in such practices resulting from urbanization as well as agricultural activities such as the growth of large animal feedlots. While the impact of land use practices is most immediately seen in surface waters and river systems through pollution, changes in biodiversity and habitat, and silting, the impact of agricultural contamination on groundwater resources is of equal, and perhaps more compelling, concern.

In addition, there is a continuing need to disseminate results of groundwater studies to the public to enable Consortium findings to be expeditiously beneficial to those needing the information. To facilitate this objective, the Consortium expanded its participant institutions to include Southern Illinois University-Edwardsville. The strategic location of the Edwardsville campus in the heart of the flood damage area, as well as its qualified research scientists who work in the Consortium's high priority research areas, add strength to the Consortium's capabilities.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The Illinois Groundwater Consortium was established to coordinate and support research on the effects of agricultural chemicals and other phenomena or events, anthropogenic or natural, on Illinois' groundwater. In working toward these goals, it is important to achieve a balance between the need to maintain the productivity and cost-effectiveness of the Nation's agricultural systems and the need to maintain the integrity of the natural environment. In this context, the Consortium has worked to address the concerns of the agricultural and agrochemical industries as well as those of the agencies charged with protection of environmental quality.

The highest priorities of the Consortium are: (1) the funding of research upon which public policymaker working on land-use or groundwater-protection issues can base decisions, and (2) the broad dissemination of this information. Projects funded by the Consortium that are completed, under way, or proposed include the following:

Short-term projects, largely flood-based and mostly completed:

—Effect of extended inundation on soil productivity;
—Effectiveness of methods of remediation for flooded soils;
—Movement of chemicals—pesticides, herbicides, heavy metal elements, etc.—from flooded soils into surface and ground waters, including rural wells;
—Impacts on soil fertility and nutrient balance caused by flooding;
—Impacts of flooding on plant and aquatic life, including endangered and dangerous species, and microbial communities;
——Effectiveness of riparian buffer strips under flooded conditions; and
—Groundwater quality changes resulting from flood-related land-use developments in both the bottomlands where farming practices change, and in the uplands where new communities are being developed.

Long-term projects, largely current and future, are focusing on the effects of land-use practices and changes in practices:

—Changes in soil chemistry and productivity over time;
—Long-term effects on and recovery of microbic activity;
—Long-term assessments and consideration of cultural—social, political—contexts of decision making;
—Impacts of urbanization on groundwater quality and quantity;
—The roles of nitrogen and nitrate: Changes in nitrogen-fixing bacteria, isotopic analyses to identify sources of nitrate, and nitrate management for water quality protection;
—Recommendations for long-term, systems-based planning and management for watershed and bottomland management;
—Examination of public policy decisions with implications for agriculture and water quality; and
—Educational outreach to management agencies, educational institutions, and farmers.

Information on the occurrence, transport, and fate of agriculture chemicals in varied hydrogeological settings in Illinois, and the effects of regulatory and inventive policies and strategies, has been acquired through joint efforts of experts in the state of Illinois who are members of the . Illinois Groundwater Consortium.

Question. How long has this work been underway and how much as been appropriated by fiscal year through fiscal year 2001?

Answer. Research grants have been awarded from funds appropriated as follows:

Fiscal year	*Funding Amount*
1990	$500,000

Fiscal year	*Funding Amount*
1991	590,000
1992	750,000
1993	750,000
1994	690,000
1995	500,000
1996	500,000
1997	500,000
1998	500,000
1999	0
2000	297,500
2001	348,232
Total	5,925,732

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant were: $255,891 state appropriations in 1991; $447,237 state appropriations in 1992; $644,054 state appropriations in 1993; and $623,124 state appropriations in 1994. Non-Federal and State funds for 1995–1997 have exceeded the Federal funds. In 1998, state appropriations totaled $151,650; in 1999, $156,198; and in 2000, $181,881.

Question. Where will the research be carried out?

Answer. The active research programs sponsored by the Illinois Groundwater consortium are being carried out throughout the state of Illinois, including, but not limited to, the heavily populated northeastern part of the state, the Karst watershed in southwestern Illinois, the drainages of the Sangamon and Illinois Rivers, and in natural conservation areas such as Horseshoe Lake. Researchers undertaking these programs are staff at the member institutions of the Consortium, including the University of Illinois, the Carbondale and Edwardsville campuses of Southern Illinois University, the Illinois State Geological Survey, and the Illinois State Water Survey. The Consortium is coordinated in the Office of Research Development and Administration in the Graduate School of Southern Illinois University-Carbondale.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Illinois Groundwater Consortium was established to support research on Illinois' groundwater. In the first and subsequent proposals, we identified both short-term objectives, which are project goals that could be accomplished within 1–2 years, and long-term objectives that could be accomplished within 2–5 years. The Consortium's highest priorities are: (1) to fund research that has practical implications for the people of Illinois and will contribute to sound policy and management decisions, and (2) to achieve broad dissemination of this information.

With respect to the first priority, the Consortium's first major focus—what we might think of as a first phase of a coordinated research program—was a 5-year study of the impacts and recovery of the 1993–1994 flooding in the Midwest. By the end of calendar year 2000, we had completed six years of studies involving 24 projects, primarily directed to the flooding event. That phase is completed now; and in 1999, the Consortium Board of Directors met and decided on the scope and direction of a second phase of groundwater study. Six projects are currently funded by the Illinois Groundwater Consortium as part of the next phase of projects for fiscal years 2000 through 2003. Projects in this phase will address two major issues. One concerns the effects of land-use practices and changes in such practices on groundwater quality and quantity, emphasizing long-term assessments and consideration of cultural—social and political—contexts of decision making. The second issue consists of intensified educational outreach efforts to management agencies, educational institutions, and farmers in the form of "user friendly" publications.

In terms of the second priority of the Consortium—dissemination of research findings—results of projects completed in previous years and progress reports on projects underway are published each year as part of the "Proceedings of the Annual Research and Planning Conference" of the Consortium and in the Consortium's "Groundwater Bulletin." Distribution of both these publications is broad, by way of mailing lists to public and private institutions and individuals, as well as through related conferences and workshops. Illinois Groundwater Consortium-funded research has been the basis for publications and educational materials used in classrooms, by management agencies and by farmers. These include "50 Ways Farmers Can Protect Their Groundwater—the 1950 Ways' series" which serves as a textbook and informational resources in all 50 states and internationally. A new series of

these books, entitled "Secret Agent Worms" and funded by the Illinois Environmental Protection Agency, is being developed for educational use at the grade-school level.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This project has not been subject to formal agency review. The USDA regularly reviews the Consortium's proposals for funding, along with the titles, principal investigators' names and affiliations, and budgets. In addition, individual project proposals are peer-reviewed by at least three faculty/researchers drawn from 36 different universities, state, and Federal labs and surveys, the Department's research laboratories, and other research centers. The reviewers rate proposals on criteria pertaining to scientific merit, quality of the research team, likelihood of the work resulting in publications and grant support from other sources, and related ness of the project to the key objectives of the Consortium.

WATER QUALITY, NORTH DAKOTA

Question. Please provide a description of the research that has been funded under the Water Quality, North Dakota program grant.

Answer. The original goal of this research was to develop an understanding of the occurrence, transport, and fate of agricultural chemicals found in representative field settings in the northern Great Plains region of the U.S. In 1996, the scope of the program was expanded to include additional water management issues in the Red River of the North drainage basin. The Red River Water Management Consortium, a partnership between public and private sectors was established to address critical water quality and quantity issues in an area where agriculture is the predominant industry. A major objective of the Red River Water Management Consortium is to use results from the initial phases of this research program to find economical, practical, and timely technological solutions to water-related issues facing the region. By providing co-funding for the program, the Consortium members become active stakeholders in the research and ensure the practicality of the work performed.

Since the Consortium was established, the Energy and Environmental Research Center has advocated a better understanding of the critical nature of the climatic cyclicity as the primary factor affecting the economy of this region. In order to live successfully in a setting that is highly influenced by cyclic climatic phenomena, the Energy and Environmental Research Center advocates developing technically-based tools as a means of protecting the region from the harmful effects of both flooding and drought and the evaluation and implementation of creative water management concepts through basinwide partnerships between basin stakeholders. The Center believes that the effective Federal, state, and local agency, municipality, and industry partnership established by the Consortium can become a model for agricultural watersheds throughout the Nation.

The focus of current work is on (1) the assessment, development, and implementation of new technologies for addressing water-related concerns within the basin; (2) water resource assessment and analysis, including the development of mechanisms for providing easy access to water-related information so proper water management decisions can be made; (3) the determination of agricultural, industrial, municipal, and recreational impacts on water resources, both current and potential, and the identification of potential solutions to water quality and quantity problems and needs; (4) water quality monitoring and coordination of monitoring activities; (5) education and information dissemination on water issues facing this region of the U.S.; and (6) development of watershed management strategies for the Red River of the North Basin focusing on water quality and quantity to ensure continued economic development and growth of the area.

Question. According to the research proposal, or the principal researcher, what is the national, regional, or local need for this research?

Answer. The Red River Water Management Consortium provides a mechanism for transferring results of the initial research to vested stakeholders of the region and for addressing water quality and quantity issues resulting from agricultural practices and development. The overall goal of the Consortium is the development of long-term watershed management strategies focusing on water quality and quantity which can be used as a model for watershed management in other agricultural regions in the United States.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of the research was to understand the occurrence, transport, and fate of agricultural chemicals and their impact on groundwater re-

sources in representative field settings in the northern Great Plains region so scientifically valid decisions could be made for their management and regulation. All fieldwork under this portion of the program has been completed, and a final comprehensive report of research findings will be completed by July 2001.

Results from this program have been reported in journals, conference proceedings, and through presentations at national, state, and local meetings. To date, more than 40 presentations or publications have resulted. In addition, two doctoral dissertations and one master's thesis have resulted from this research.

Finally, the researchers have established the Red River Water Management Consortium as a mechanism for transferring the results of the initial and other ongoing research to vested stakeholders in the region and to the general public in order to address water quality and quantity problems resulting from agricultural practices and agricultural development.

Question. How long has this work been under way and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. In 1989, $1.0 million was appropriated under the groundwater research program. Beginning in 1990, funds have been earmarked under the direct Federal Administration program. Work supported by this grant was initiated in fiscal year 1990, with an appropriation of $987,000. Subsequent appropriations have been $750,000 in fiscal year 1991; $500,000 per year in fiscal years 1992–1993; $470,000 in fiscal year 1994; $407,000 in fiscal year 1995; $436,000 per year in fiscal years 1996–1998; $340,000 in fiscal year 2000; and $394,131 in fiscal year 2001. A total of $6,656,131 has been appropriated for this water quality research program.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Consortium members provide co-funding to support their participation in the program. Co-funding provided by the Consortium for fiscal year 1996 totaled $59,700 and fiscal year 1997 totaled $80,000. In fiscal year 1998, members provided $90,000 in complementary funding through membership fees, of which $86,000 came from non-Federal sources and $4,000 came from the U.S. Environmental Protection Agency—EPA—319 funds. In fiscal year 1999, complementary funding consisted of $90,000 in membership fees, of which $86,000 came from non-Federal funding and $4,000 came from EPA 319 funds. An additional $102,000 in non-Federal funds came from other sources, including the North Dakota Industrial Commission, the City of Grand Forks, the Minnesota Department of Natural Resources, the Bremer Foundation, the Red River Basin Board, and internal Energy and Environmental Research Center funds. In addition in fiscal year 1999, other Federal sources provided $52,825 in complementary funding, which include the EPA's Riparian Project—319 funds—and the U.S. Department of Energy-Energy and Environmental Research Center Jointly Sponsored Research Program. In fiscal year 2000, $90,000 was provided by membership fees as complementary funding, and $33,600 in other Federal complementary funding was provided through the EPA's Riparian Project.

Field activities to determine the long-term trends of nitrate and sulfate and to determine the source of sulfate were conducted in cooperation with the North Dakota State Water Commission, which provided $41,000 in cash equivalent funding for sample analysis and field instrumentation. Instrumentation of sites occurred in fiscal year 1997, and sampling and analysis continued through fiscal year 2000.

In fiscal year 1998, the U.S. Army Corps of Engineers contracted through the Consortium a $100,000, 6-month effort to improve the decisionmaking capability regarding ongoing flooding within the Devils Lake Basin, a subbasin of the Red River of the North Basin. This work produced decision support tools, forecasts, data, and forums that continue to be used by the Corps' St. Paul district, the states of North Dakota and Minnesota, the International Joint Commission, and the people of the Devils Lake region.

Question. Where is this work being carried out?

Answer. Research is being conducted at the University of North Dakota through its Energy and Environmental Research Center and at field sites and agricultural product-processing facilities in North Dakota, Minnesota, and Montana as well as in major municipalities along the Red River Valley. In addition, a portion of the pesticide research was conducted at North Dakota State University. Cooperative efforts have resulted in work also being performed at cooperative institution locations such as the University of Waterloo, Victoria University, the University of Montana, the Resource Conservation and Development Council offices in the Red River Basin, and the North Dakota State Water Commission.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives of the project, specifically the field-related research, was fall 1995. This research his been completed; and the sites have been decommissioned, with the exception of those relating to long-term nitrate and sulfate monitoring and analysis. Work on nitrate and sulfate trends and occurrence was scheduled for completion in 1999. All field work related to the impacts of agricultural chemicals on groundwater has also been completed. A final report detailing that research is slated for July 2001. The Consortium was established in 1996 as a mechanism for transferring the information derived from this research program to the technical community and to the public for use in addressing water quality and quantity issues relating to agriculture and agricultural development. Wise water management is the key to the economic viability of agriculture in our region. It is anticipated that the Red River Water Management Consortium activities will continue for several years in order to meet the objectives as defined by the non-Federal sponsors and the agency.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The last formal agency evaluation of this project was conducted in September 1996. The agency Technical Project Officer attended a meeting of the Consortium to evaluate and determine the status of this effort. Since that time. The agency Project Officer has been kept apprised of project activities. Significant progress has been made by the Consortium during its nearly 5 years, and the program is an excellent example of how Federal and State agencies, research and academic institutions, private industry, and the general public can work together to solve problems in an economical manner to benefit people, communities, and the Nation. To date, all project objectives have been met.

WETLAND PLANTS, WEST VIRGINIA

Question. Please provide a description of the research that has been funded under the Wetland Plants, West Virginia grant.

Answer. The research involves an interdisciplinary investigation of the vegetation—plant composition, species richness, species diversity, and dominance— disturbance history, soils, geology, and hydrology of six wetland sites in West Virginia. Geographical Information Systems' maps of the six cities will be developed using black and white aerial photographs of the sites from 1940, 1950, 1960, 1970, 1980, and 1990. Results will be used to develop models for studying, managing, and even creating wetland habitats.

Question. According to the research proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. Wetlands in West Virginia have declined at least 24 percent between the 1780's and 1980's. To compensate for the loss of these systems and their functions, mitigation is required. To do this effectively, a better understanding and more information of the wetland as an ecosystem must be obtained specifically; i.e., at specific sites and locale.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. This is a new proposal, and the realization of its goals are underway.

Question. How long has this work been underway and how much as been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $141,688.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds have been identified to support this project.

Question. Where will the research be carried out?

Answer. Research will be conducted at the Canaan Valley Institute in Charleston, West Virginia.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The requested grant proposal has not yet been received.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project. No prior evaluation has been conducted.

EXTENSION FEDERAL ADMINISTRATION PROJECTS

AFTER-SCHOOL PROGRAMS, CALIFORNIA

Question. Please provide a description of the extension program that has been funded under the After-School Program, California grant.

Answer. This program will improve the quality, accessibility, and sustainability of 4–H After-School Programs in Los Angeles public housing communities, public schools, and other locations in the community. In addition, Los Angeles County Extension Staff will provide leadership to improve after-school programs administered by other agencies and organizations by offering model after-school program sites, staff development and training, and quality experiential curricula. CSREES has requested the University of California to submit a grant proposal that has not yet been received. The proposal will include specific program objectives.

Question. According to the proposal, or the principal researcher, what is the national, regional or local need for this program?

Answer. The need for this extension program is great. Los Angeles County has a population of more than 2.5 million children and youth under age 18, more than 26 percent of the total youth population of California. The county's youth population is one of the most diverse in the United States, with 58 percent Latino, 21 percent Caucasian, 10 percent African American, and 10 percent Asian American. Of California's minority youth population, 45 percent resides in Los Angeles County. Thirty-six percent have limited proficiency in English, and 37 percent live in low-income households. Low rates of academic attainment threaten a future competent and productive workforce. In response to these challenging statistics, research has shown that engagement in quality after-school programs is one predictor of school success. In addition, quality after-school programs have been shown to improve social, emotional, and physical competencies. Therefore, this program aims to improve educational, economic, employment, and environmental factors in the live of Los Angeles families and communities.

Question. What was the original goal of this extension program and what has been accomplished to date?

Answer. The planned goals of this extension program are to first, develop and improve model 4–H After-School Programs in Los Angeles; second, infuse research-based, age-appropriate curricula into programs; third, provide staff development and training; and fourth, conduct applied research on youth and family development issues. Because this is a new project, a report on accomplishments is not available.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $398,122.

Question. What are the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are estimated to be as follows: $128,900 state appropriations and $360,700 miscellaneous in fiscal year 2001.

Question. Where is this work being carried out?

Answer. This extension program will be conducted in public housing communities, public schools, and other locations within the city of Los Angeles.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is projected to be 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. University of California will conduct a merit review prior to submitting the proposal for fiscal year 2001.

AGRICULTURE IN THE CLASSROOM

Question. Please provide a description of the program that has been funded under the Ag in the Classroom grant.

Answer. Agriculture in the Classroom is an academic program to develop agricultural literacy in kindergarten through 12th grade students. Funds appropriated are used to leverage agricultural literacy activities in all 50 states, the District of Columbia, and U.S. territories by providing national leadership and guidance to State Agriculture in the Classroom Coordinators. This supports the education of more than five million students through over 130,000 teachers annually. Activities during

the past year include cooperative agreements to develop and distribute instructional materials that meet State standards of learning, and to document the effectiveness of Ag in the Classroom teaching programs, maintenance of a national web site to provide fast, cost effective dissemination of information and materials, a national newsletter, collaboration with the Smithsonian Institution and Sustainable Agriculture Research and Education to educate about prairie agriculture, cooperation with the White House Office of Science and Technology Policy to promote Global Science and Technology Week, and planning and conducting an annual national conference.

Question. What is the national, regional, or local need for this program?

Answer. In the Federal Agriculture Improvement and Reform Act of 1996, Congress noted the importance of increasing the number of young Americans pursuing baccalaureate or higher degrees in the food and agricultural sciences. Agricultural literacy is a critical first step in creating interest and awareness of career opportunities in the food and agricultural sciences. Education studies cite that students learn best by example. Agriculture provides hands-on learning experiences in academic disciplines including the physical and biological sciences, social sciences, language arts, and mathematics. Developing agricultural literacy among America's youth is key to ensuring a high-quality, globally-competitive food and agricultural workforce.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The Secretary of Agriculture established the Ag in the Classroom Program in 1981 to help future generations become agriculturally literate. The program encourages teachers to integrate food and agricultural topics into their curricula. The original purpose of the program was to promote agricultural literacy in the primary and secondary education system.

Each state develops or distributes education materials compatible with state teaching and learning standards and conducts in-service and, in some cases, preservice, teacher education. Results show that Agriculture in the Classroom helps teachers and students understand the complexity of the food and fiber system and better appreciate its impact on the economy and society. Teachers integrate food and agricultural topics into their broad curricula.

A national web site coordinates and facilitates ideas exchange among the Ag in the Classroom State Coordinators; most states also have web sites. Outstanding teachers are presented with National Teaching Awards yearly at the national conference; they share their award-winning materials and techniques with other teachers nationwide.

USDA annually sponsors a national conference to bring the Ag in the Classroom community together to expand experiences, ideas, materials, information, and techniques among state programs, educators, government agencies, agribusiness, and agricultural organizations. A quarterly newsletter provides updates and teaching materials on agricultural topics. A National Resource Guide and outreach to educational associations are being funded to enhance and extend Ag in the Classroom efforts, especially in modestly funded states, and to increase collaboration with 4–H and FFA programs.

States have received acknowledgments from thousands of teachers and administrators who report strong links between agriculture and State required competencies, increased use of instructional technology, meaningful experiential learning for students and teachers, and the objectivity and educational appropriateness of Ag in the Classroom teaching support materials. Thousands of teachers receive continuing education credit or graduate credit.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. A total of $2,912,886 has been appropriated for this program by fiscal year as follows: fiscal year 1986, $76,000; fiscal years 1987 and 1988, $74,000 per year; fiscal year 1989, $87,000; fiscal year 1990, $135,000; fiscal year 1991, $170,000; fiscal years 1992 and 1993, $208,000 per year; fiscal year 1994, $185,000; fiscal year 1995, $208,000; fiscal year 1996, $204,880; fiscal years 1997 through 2000, $208,000 per year; and $451,006 in fiscal year 2001.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This is not a grants program and does not require matching funds. Ag in the Classroom is highly leveraged through a variety of public and private funding that supports State programs. The USDA cooperative agreements that are in place have non-Federal matching funds.

Question. Where is the work being carried out?

Answer. National leadership for Agriculture in the Classroom is provided by the Higher Education Programs unit in CSREES. Each state manages its own unique

program. Nationally, the program impacts an estimated 130,000 teachers and over five million kindergarten through grade 12 students annually. States depend heavily on many volunteers—teachers, farmers, agribusiness, farm organization spokespersons, and others—to reach the large numbers of teachers and students served by their programs.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related activities?

Answer. Beginning in 1981, under the direction of the Secretary of Agriculture, an Agriculture in the Classroom program was initiated in every State, the District of Columbia, and the U.S. territories. Developing agricultural literacy among America's youth is a continuing effort to serve each new generation of students, and to ensure a high quality food and agricultural workforce for the future.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. State Directors report that evaluations have been conducted over the past several years. Findings are positive: Ag in the Classroom is an effective teaching tool. A committee of western educators researching agricultural literacy is focusing on the Ag in the Classroom program, and two studies on the teaching effectiveness of the program began this year.

During each national conference formal evaluations are conducted and results are considered in defining future goals for the program. Yearly state summaries are prepared and distributed at the national conference. The summaries include accomplishments, impacts, and evaluations by states. Recent impacts identified are the introduction of food and agricultural topics into the curricula in urban and suburban schools, the inclusion of agriculture in the social studies core curriculum in several states, and the use of food and agricultural topics to meet mandated teaching and learning standards. Teachers without agricultural backgrounds have been quick to use Ag in the Classroom materials in their lesson plans.

BEEF IMPROVEMENT, ARKANSAS

Question. Please provide a description of the program that has been funded as the Arkansas Beef Improvement Program.

Answer. The Arkansas Beef Improvement Program uses verification methods with producer input to demonstrate cost effective management practices for beef cattle and forage production. These demonstrations are conducted on family-owned beef cattle operations throughout Arkansas. Although the Arkansas Beef Improvement Program continues to have whole farm demonstrations, special projects or problem areas have been identified and are under examination. This allowed the program to expand to help answer additional beef cattle and forage production issues. Information learned throughout the Beef Improvement Program is transferred to the public via field days, monthly articles, fact sheets, quarterly newsletters, press articles, and a special Beef Improvement Workshop program.

Question. What is the national, regional or local need for this program?

Answer. Two major areas demonstrate a national, regional and local need for the Beef Improvement program. Arkansas is a very unique state in which the northern area resembles much of the mid-south region of the U.S. and the southern area of Arkansas represents the southern U.S. region. Many of the beef cattle production, forage production, and environmental problems that are in Arkansas are also in these two areas. Therefore, answers to production problems in Arkansas may apply to many states of the southern region. In addition, the Beef Improvement Program demonstrates the need for planning, implementing, and monitoring a business plan. These decisionmaking skills, or processes, are utilized throughout the ranching industry.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The overall goal of the Arkansas Beef Improvement Program was to enhance the efficiency and profitability of the Arkansas beef cattle producer. This program uses demonstration farms to implement and evaluate management practices. To date there have been 14 farms committed to the five-year whole farm demonstration. Currently, three farms are in the fourth year of the program, and one farm is in its second year. Ten farms have completed their five-year commitment. There have been 26 farms involved with the Beef Improvement Special Projects. The commitment with these projects is usually two to three years but is dependent upon the farm and project. Currently, there are 18 active projects.

Question. How long has the program been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. $200,000 has been appropriated to this project from fiscal years 1993 through 1995; in fiscal years 1996 through 2000, $197,000 per year; and in fiscal year 2001, $196,567 for a total of $1,781,567.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The State of Arkansas provided $118,154 for fiscal year 2000.

Question. Where is the work being carried out?

Answer. Currently there are 22 active whole farm demonstrations and special project demonstrations. These are being conducted on family farms located throughout Arkansas and represent the structure of the beef cattle industry of Arkansas. The forage base is bermudagrass, fescue, and native grass, and some of the beef cattle producers also operate poultry or swine operations. In addition to the demonstration farms, a workshop was developed to teach the lessons learned from the Beef Improvement effort. Twenty-nine workshops have been conducted with more scheduled for the spring of 2001. These workshops have been very well received and are usually scheduled a year in advance. In addition to these educational methods, an Arkansas Beef Improvement Newsletter is published and mailed to county extension agents and extension personnel in surrounding states. Monthly articles are published in Arkansas Cattle Business, which reaches over 13,000 beef cattle producers in Arkansas.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The Arkansas Beef Improvement Program currently has four whole farm demonstrations and 18 special projects. Three of the whole farm projects will finish in 2001, and the fourth whole farm project will finish in 2003. The special projects include cow herd performance, pasture renovation, cull cow management, replacement heifer development, establishing breeding and calving seasons, backgrounding farm raised calves, hay quality and supplemental feeding, and stockpiled forages. These projects range from two to five years in length. As farms complete special projects, additional farms are selected for special projects. This allows the program to investigate different management systems under different environmental conditions. Eight farms started special projects in fiscal year 2000, and these will be completed in two to five years.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A CSREES review of this project is conducted annually. The 2000 review was positive, with continued encouragement for dissemination of results and materials developed in this project through public and industry publications to producers in other states.

BOTANIC GARDEN INITIATIVE, ILLINOIS

Question. Please provide a description of the program that has been funded under the Botanic Garden Initiative, Illinois grant.

Answer. The Chicago Botanic Garden grant proposal for fiscal year 2000 funded their Garden in Every School Initiative which is intended to increase student interest and understanding of science and other related subjects using gardening as the focus.

Question. What is the national, regional, or local need for this program?

Answer. The Chicago Botanic Garden expects the grant to result in educational curricula, lesson plans, garden design and construction recommendations, and garden activities that will serve as a model for other cities throughout the U.S.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The original goal is to develop an innovative program that increases green spaces at Chicago's public schools and teaches elementary school students the value of plant science, math, nutrition, business, and literature. Students and teachers, in collaboration with the Chicago Botanic Garden, will build and maintain gardens by using the Life Lab curriculum, a nationally-acclaimed and widely-used science curriculum.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000 and the appropriation for fiscal year 2000 was $106,263 and for fiscal year 2001 the appropriation is $237,476 for a total of $343,739.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds sources provided for this grant have not been determined at this time.

Question. Where is this work being carried out?

Answer. This work is conducted at the Chicago Botanical Garden.

Question. What was the anticipated completion date for the original objective of the project? Have those objectives been met? What is the anticipated completion date of additional or related-objectives?

Answer. Current progress indicates the anticipated completion date for the original objectives is five years.

Question. When was the last agency evaluation of this project? Provided summary of the last evaluation conducted.

Answer. In June 2000, the project manager for this grant conducted an on-site review of the program. Based on this evaluation, a number of revisions were recommended, and these changes have been incorporated in the Chicago Botanic Garden's grant proposal.

CONSERVATION TECHNOLOGY TRANSFER, WISCONSIN

Question. Please provide a description of the program that has been funded under the Conservation Technology Transfer, Wisconsin grant.

Answer. The project integrates Land Grant outreach programs with technical assistance dimensions of the Federal Farm Bill. It leverages funding at the University of Wisconsin with Federal, State, and Local sources to provide education and technical support to livestock producers regarding animal waste.

Question. According to the extension proposal or the principal researcher, what is the national, regional, or local need for this research?

Answer. This project is necessary to meet Federal regulations on nonpoint source pollution, especially those pertaining to animal waste. It has already served as a regional model for cooperation with the Cooperative Extension Service, the Agricultural Research Service, and the Natural Resources Conservation Service. At least six other states have requested information and/or direct assistance from Wisconsin to copy specific partnership elements that integrate Land Grant activities with the Natural Resources Conservation Service and help streamline assistance to local landowners.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this project was to coordinate conservation education on soil and water issues including nutrient management. To date, one of our greatest successes integrates university research and extension outreach with the USDA's Natural Resources Conservation Service technical assistance mission. This effort has resulted in cooperative programs that educate farmers about nutrient management planning.

Question. How long has this work been underway and how much as been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 2000. The appropriation for fiscal year 2000 was $170,022 and for fiscal year 2001 is $473,955. The total amount appropriated is $643,077.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources provided for this grant are expected to be $1,200,000 from state and local funds for fiscal year 2001. Commitments are still being secured.

Question. Where is this work being carried out?

Answer. This project is being conducted with individual producers and land managers throughout Wisconsin, in coordination with the USDA's Agricultural Research Service Station in Madison and the Natural Resources Conservation Service.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is June 30, 2001. The university has proposed expansion of this effort, which would require identification of continual non-Federal funding sources to meet the needs of conservation technology education in Wisconsin.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The most recent agency evaluation was spring 2000. Several changes were made as a result of written comments from fiscal year 2000. An onsite evaluation of the project is planned for fiscal year 2001.

DAIRY EDUCATION, IOWA

Question. Please provide a description of the program that has been funded under the Dairy Education, Iowa grant.

Answer. CSREES has requested the college to submit a grant proposal that has not yet been received.

Question. What is the national, regional, or local need for this program?

Answer. There are tremendous financial pressures on dairy producers. Farm families are in need of better education, applied research, and technical advocacy so that they can continue to compete. It is important to remember that the average cow size of dairy farms in Iowa is 66 cows and that most farm operations are conducted by families who do the work themselves. Many have already left the farm industry because of the lack of educational support. Seventy-two percent of Iowa's dairy cows are owned by nearly 3,000 family-based businesses located in a 17-county region in northeast Iowa near this Dairy Center at Calmar. The Center will be a direct service to all these families. In addition, within the remainder of Iowa and the states of Minnesota, Illinois, and Wisconsin there are two million dairy cows and nearly 32,000 producers who will be served by this Center. If the family dairy farm is to survive in these difficult economic times, new methods of production will need to be developed, tested in a production facility and promoted. This Center will serve as an advocate for the family dairy farm, combining farmer ownership with Iowa State University Extension, and Northeast Iowa Community College leadership. Federal funds provided by this grant are expected to strengthen the educational effort and explore solutions to the needs of dairy producers and the dairy infrastructure of northeast Iowa.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The goal of the Dairy Initiative is to enhance the economic viability of current dairy businesses and to increase the number of entries into the dairy industry. The Dairy Education, Demonstration, and Applied Research Center opened October 14, 2000. Seven-hundred dairy farm families came together to make this Center happen. The facility will train tomorrow's dairy professionals, demonstrate best practices to current producers, and apply the latest innovations in a field trial situation. Already, the number of students who have enrolled in the dairy program of education has almost doubled. We expect an additional doubling by 2001.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $237,476.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funds and sources to be provided for this grant are as follows: $554,000 state appropriations; $2.1 million paid or committed from Northeast Iowa Community College; $500,000 from Iowa State University; $550,000 from Dairy Foundation members and contributors; and additional unidentified miscellaneous funds in fiscal year 2001.

Question. Where is the work being carried out?

Answer. Research and education will be conducted at the Dairy Center located at Calmar, Iowa. There is a 150 cow, three-row freestall barn that features two manure handling systems; the double eight subway milking parlor has parallel stalls on one side and herringbone on the other; and a methane digester will be used to capture energy and odor from the manure. This is truly a unique facility in the world and was designed by the farmer members of the Foundation to best respond to their needs for education and training.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives was met when the facility opened October 14, 2000. The methane digestor should be operational by May 1, 2001. Education and research projects have been conducted at the Center since October 16, 2000. This will be a continual process, however, as the facility upgrades technologies to demonstrate and apply innovations. The quarterly newsletters of the Foundation report on dairy related activity.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A visit to this project has been scheduled, however no evaluation has yet been done.

DELTA TEACHERS ACADEMY

Question. Please provide a description of the program that has been funded under the Delta Teachers Academy project.

Answer. The National Academy proposes to continue its Delta Teachers Academy in the Lower Mississippi Delta Region—219 counties and parishes near the Mississippi River including portions of Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee—focusing on educational improvement in core subject areas. The program was launched in 1992 with a pilot grant of $500,000 from the U.S. Department of Education. USDA funding began in 1994. The program provides long-term academic enrichment annually to approximately 500 elementary and secondary school teachers by teaming them with university scholars for in-service training during the school year and with summer institutes at 11 Academy field offices throughout the seven Delta states. Through its Fellows Program, the Delta Teachers Academy sustains the professional development of more than 1,100 Academy graduates throughout the region. This grant is not awarded competitively; however, we require annual applications reporting the previous year's accomplishments and describing planned activities and expenditures for the coming year. These applications undergo merit review before the awards are made.

Question. What is the national, regional, or local need for this project?

Answer. The 219-county Lower Mississippi Delta region has been cited by the Educational Testing Service and the National Center for Education Statistics as notably lagging in student performance in core academic areas. According to the grant recipient, 33 percent of the children in the region live below the poverty line compared to 20.5 percent nationally. In 1996, 60 percent of Louisiana's public school sample ranked "below basic" on the National Assessment of Education Progress test for eighth-graders. The USDA's Economic Research Service correlated poor educational performance, rural poverty, and limited economic development. The Delta Development Commission cited serious educational problems including poor student performance in core content areas, demoralized teachers with little opportunity for academic development, and region-wide difficulty in recruiting and retaining qualified teachers. The Commission noted that 75 percent of the region's workforce lacks the basic reading skills necessary for technical training, and specifically cited improved teacher training as one means for breaking the cycle of poverty and economic noncompetitiveness.

Question. What was the original goal of the program and what has been accomplished to date?

Answer. The original and continuing goal of the project is to address the problem of insufficient professional development opportunities for the elementary and secondary teachers of the seven-state region. The Delta Teachers Academy focuses on core subjects of English, geography, history, mathematics, and science. Some sites also focus on humanities, language arts, social studies, reading, civics, and interdisciplinary subjects. The Delta Teachers Academy began by offering educational development activities for 100 teachers from 50 rural districts at 10 sites. Training has expanded to 600 teachers at 40 sites across the entire seven-state region. More than 1,100 graduates whose professional development is sustained through the Academy's Fellows Program lead teacher in-service training at their home schools. The project has improved student performance and teacher training, morale, recruitment, and retention in the region.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. A total of $27,653,300 million has been appropriated to the Department of Agriculture for this project, including $2,000,000 in fiscal year 1994; $3,935,000 in fiscal year 1995; $3,876,000 in fiscal year 1996; $3,850,000 in fiscal year 1997; $3,500,000 each year in fiscal years 1998 through 2000; and $3,492,300 in fiscal year 2001.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. There are no non-Federal funds identified for this project.

Question. Where is the work being carried out?

Answer. The Delta Teachers Academy project is coordinated out of The National Faculty's office in Atlanta, Georgia and at 11 Academy field offices located throughout the seven Delta states. The project is conducted currently at 23 sites in the seven-state Lower Mississippi Delta region including Arkansas, Kentucky, Illinois, Louisiana, Mississippi, Missouri, and Tennessee.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original objective was to provide three full years of training to each faculty team established by the Delta Teachers Academy. Training consists of four two-day academic sessions and one two-week summer institute for each team. This objective was met for the 24 faculty teams funded under the original fiscal year 1994 USDA grant. Since that time, 15 additional teams funded in 1995, one team funded in fiscal year 1996, 20 new teams funded in fiscal year 1997, and 14 teams funded in fiscal year 1998 have all completed three-year training cycles. Training for 440 new scholars in 18 teams established in fiscal year 1999 continued into fiscal year 2000. Nine new teacher cohorts established in fiscal year 2000 will continue their training in fiscal year 2001 along with 14 new teams to be established in fiscal year 2001 for three years of training for 500 scholars.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. An assessment of the Delta Teachers Academy performance was conducted by the independent research and evaluation firm of Westat, Inc. of Rockville, Maryland, during fiscal year 2000. That work will continue into fiscal year 2001, and a report will be available by September 2001.

In a previous evaluation completed in August 1997, Westat found the majority of participants reported that the Academy met their personal and professional needs by renewing their enthusiasm for teaching, improving self-confidence, increasing their sense of professionalism, improving their knowledge of specific content areas, enhancing teaching methods, and interacting with peers. Teachers are applying what they have learned from the Academy in their classrooms. For example:

—88 percent said the Academy prepared them to assume leadership roles in their schools;

—89 percent noted changes in student work habits, attitudes, aspirations, and achievements;

—90 percent applied academic content from the program in their classrooms;

—78 percent used skills and strategies learned at the Academy in their classroom teaching;

—83 percent said their teaching approaches became more effective in improving student learning.

A site visit of the Delta Teachers Academy in New Orleans, Louisiana, and the National Faculty's Summer Institute at Tulane University was conducted by CSREES' National Program Leader for Higher Education and Evaluation in 1996. The visit confirmed that Delta Teachers Academy strengthened participating teachers' abilities by improving their knowledge base, helped them become leaders of other teachers by requiring them to conduct staff development at their home schools, and had a positive impact on student learning. School superintendents reported greater student enthusiasm, more homework, and higher test scores for students whose teachers were participants in the Delta Teachers Academy program.

A U.S. General Accounting Office review of the Academy's programs was conducted in 1995. Report GAO/RCED–95–208 included summary statistics on more than 1,000 teacher evaluations of Academy sessions as well as the General Accounting Office's survey of participants. On average, participants reported that the Academy was more effective than any other teacher development program they had participated in, was very effective in renewing or enhancing knowledge in one or more academic subjects, and was generally effective in enhancing the teaching skills and strategies required for teaching challenging academic content.

DIABETES DETECTION AND PREVENTION, WASHINGTON AND HAWAII

Question. Please provide a description of the extension activity that has been funded under the Diabetes Detection and Prevention, Washington and Hawaii grant.

Answer. This grant supports a pilot project and collaborative effort, The Partnership for Diabetes Awareness, Education and Screening. This unique collaboration has as its centerpiece a partnership between the Cooperative Extension programs at two Western Region Land-Grant Institutions, Washington State University and the University of Hawaii-Hilo, and the century-old Joslin Diabetes Center, an affiliate of the Harvard Medical School and located in Boston, Massachusetts. The program is designed to provide (1) diabetes awareness, prevention education, screening, and management services to selected minority under-served rural and urban populations in Washington and Hawaii using innovative non-invasive ocular fluorescence detection technology and blood glucose measures; (2) culturally-sensitive and science-based diabetes prevention and care education materials; and (3) case management support and follow-up services for patient referrals.

Question. According to the proposal, or the project director, what is the national, regional, or local need for this extension program?

Answer. This program grows out of a need to reach more of the millions of Americans who have undiagnosed diabetes, to reduce the racial disparities associated with the disease in the U.S., and to ensure a healthy and productive workforce. Diabetes is currently one of the leading causes of death and disability in the U.S. adult population, and is highest among certain racial and ethnic populations, especially Native Americans, African Americans, Hispanic Americans, and Asians and Pacific Islanders.

Question. What was the original goal of this project and what has been accomplished to date?

Answer. The goal of this integrated extension outreach project continues to be to provide (1) screening for diabetes among selected rural and urban minority patient populations in Washington and Hawaii, using an innovative non-invasive ocular fluorescence detection technology and blood glucose measures; (2) culturally-sensitive and science-based diabetes education prevention and care materials; and (3) case management support and follow-up services for patient referrals.

Accomplishments to date include the following: (1) establishment of a memorandum of understanding between the USDA–CSREES and the Joslin Diabetes Center to identify the parties involved, the purpose, the background of the parties and authority, the roles and responsibilities of the parties, and the duration of the partnership; (2) development, review, field-test, and publication of a culturally-sensitive and science-based instructional flip-chart for use by extension faculty with the targeted audience; (3) partnerships with eight community-based agencies/institutions with development and testing of the ocular fluorescence detection instrument; (4) cooking demonstrations for managing diabetes through diet; (5) a presentation on the Joslin/Extension partner model at a national diabetes education conference sponsored by the West Virginia Extension Service; (6) partnership with the National Diabetes Education Program sponsored by the Centers for Disease Control and Prevention and the National Institute for Diabetes and Digestive and Kidney Diseases; (7) partnerships with state Diabetes Control Program offices and the Hawaii and Washington State Cooperative Extension programs; (8) site visits by staff of the Joslin Diabetes Center to Hawaii and Washington programs, and a site visit by USDA staff to Hawaii program; (9) a face-to-face planning meeting held in Seattle Washington, and five telephone conference calls to review and examine progress toward objectives; (10) dissemination of information about the pilot project to the human sciences land-grant community; and (11) participation by county extension faculty in diabetes education training programs to enhance their knowledge.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1999. The funds appropriated to date are:

Fiscal year	*Amount*
1999	$550,000
2000	550,000
2001	923,963
Total	2,023,963

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. This grant is supported with additional funds and in-kind services provided by the Joslin Diabetes Center and state support from the Cooperative Extension Programs in Hawaii and Washington.

Question. Where is this work being carried out?

Answer. The program is being conducted in a diabetes screening and health center in a shopping center in Hilo, Hawaii, and in community facilities in Washington. In addition, the Cooperative Extension offices in Hawaii and Washington, and local partnering groups, are intimately involved in program implementation.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date for the original objectives is September 30, 2002. The project is on-target to reach the original objectives.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A formal agency evaluation has not yet occurred. Oversight and monitoring activities are regularly conducted through telephone calls, annual reports, e-

mail, and face-to-face visits where these are tied to other agency travel. A mid-course evaluation of program outputs and the delivery process to date is anticipated in April 2001.

EFFICIENT IRRIGATION, NEW MEXICO AND TEXAS

Question. Please provide a description of the extension program that has been funded under the Efficient Irrigation, New Mexico and Texas grant.

Answer. The waters of the Rio Grande are a critical resource for the region as 98 percent of the water use in the Rio Grande Basin comes from the river. This project will provide extension education to increase the efficiency of agriculture and urban landscape irrigation and encourage the development of efficient water markets in the Rio Grande Basin.

Question. According to the extension proposal, or the project director, what is the national, regional, and local need for this program?

Answer. Growing demand and drought have created critical water supply issues for much of the southwest. This project is designed to improve irrigation efficiency and water conservation in the Rio Grande basin in New Mexico, Texas, and Mexico. The crux of the problem is that a total water management system, which would assist agriculture and urban interests, does not exist. As a result, water is released on demand often resulting in inefficient management. Water problems will only increase as the population in this region grows and more industry is located to this region.

Question. What was the original goal of this extension project and what has been accomplished to date?

Answer. According to the project proposal, subject areas addressed will include irrigation district studies; irrigation education and training; institutional incentives for efficient water use; on-farm irrigation system management; urban landscape and in-home water conservation; environment, ecology and water quality protection; saline waste water management and water use; basin-wide hydrology, salinity modeling and technology; and communications/oversight/biometric support/accountability.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $1,895,820.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. Sources of any non-Federal funds will be identified in the grant proposal.

Question. Where is the work being carried out?

Answer. This extension program will be carried out by Texas A&M University and New Mexico State University. Coordination will be provided through Texas A&M University Extension.

Question. What was the anticipated completion date for the original objectives of this project? Have the objectives been met? What is the anticipated completion date of additional or related objectives.

Answer. The anticipated completion date for the first phase is March 31, 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project. An agency review will be conducted prior to awarding the grant.

EXTENSION SPECIALIST, MISSISSIPPI

Question. Please provide a description of the program that has been funded as the Basic Weather Service for Research and Extension Project—Extension Specialist, Mississippi.

Answer. The Basic Weather Service and Extension project is designed to fill a void in weather data due to closure of the Ag Weather Service facility in Stoneville, Mississippi. The funding is being used to gather and disseminate critical agricultural weather data for producers and researchers in Mississippi and surrounding states.

Question. What is the national, regional or local need for this program?

Answer. The closure of the Ag Weather Service facility created a void in the availability of and access to critical weather data that producers and researchers use to make management decisions and to formulate work plans within the state and region. The agricultural weather data collected by this project serves a national need to provide data for the Weekly Weather and Crop Bulletin and the Soil Climate Analysis Network.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The goal of the project is to collect, maintain, and disseminate weather information for producers and researchers in Mississippi and surrounding states. Electronic weather stations and links with other web sites to deliver weather data have been installed and developed. The project is providing timely data to producers in the Delta.

Question. How long has the program been underway and how much has been appropriated by fiscal year through 2001?

Answer. The funding for fiscal years 1997 and 1998 was $50,000 each year; for fiscal years 1999–2000, $100,000 each year; and for fiscal year 2001, $99,780. A total of $399,780 has been appropriated.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The state of Mississippi through the Mississippi Cooperative Extension Service and Delta Research and Extension Center provided $41,350 in state appropriated funds to support this project in 1997, 1998, and 1999. Although a 2000 contribution was not formally matched, state personnel services were provided.

Question. Where is the work being carried out?

Answer. The project is conducted at the Delta Research and Extension Center in Stoneville, Mississippi.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of the additional or related objectives?

Answer. One of the original objectives—installation of equipment to collect weather data and establishment of a web site—has been completed. The agriculture community—producers, markets, suppliers of goods and services, and financial institutions—depend upon weather information as a guide for business planning and decision making. As agriculture implements new programs in pest management, crop production, and site-specific farming, additional and nearer to real-time weather data and products are needed for their success. A denser weather station network with additional specific weather parameters is a new objective. Its completion is dependent upon the best use of scarce current funding and new funding opportunities and existing and new interagency cooperative efforts. At least one weather station per county is desired in the 19-county area of the Mississippi Delta.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. Evaluation of the project and Internet web site is being conducted with an on-line statistics instrument and through e-mail responses about the site. An advisory group has been identified and is functioning to provide feedback on the weather center's current status as well as assessing needs for future plans for the project's continued mission. The Internet site rose rapidly to the top ten on the Extension server and receives over 100,000 hits annually.

FAMILY FARM BEEF INDUSTRY NETWORK, OHIO

Question. Please provide a description of the work that has been funded under the Family Farm Beef Industry Network, Ohio grant.

Answer. This is a new project. CSREES has requested the university to submit a grant proposal that has not yet been received.

Question. What is the national, regional, or local need for this program?

Answer. The decline of the "family farm" as the functional, sustainable backbone of rural society is a problem receiving increased national attention. The declining rural population in many states has drastically altered the tax base, which has affected the quality of primary education, medical care, and other tax-supported services. In Ohio, the continuing integration of the pork industry, with the resulting recent over-supply of pork and decreased revenue achieved from marketing grain through hogs, has forced many northwest Ohio farmers to look at other avenues to increase farm income in order to survive. Marketing grain through cattle is currently an economically-viable option due to the structure of the cattle feeding industry. However, this will require training a new generation of cattle feeders in Ohio, developing relationships with Ohio cow-calf producers looking for opportunities to increase their profitability, and developing marketing channels for beef that is produced to meet the requirements of targeted processors and consumer groups.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The goal of this project is to develop producer education and beef production marketing channels to allow closely aligned family farms, both cow-calf and feedlot, the opportunity to survive in a changing social and economic climate.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001. The appropriation for fiscal year 2001 is $1,317,096.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The non-Federal funding provided for fiscal year 2001 is approximately $30,000 from Ohio State University.

Question. Where is this work being carried out?

Answer. This work is being conducted at Ohio State University and at cooperating feedlot operations, cow-calf operations, and beef processors in northwest Ohio.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. It is anticipated that this project will continue to grow and develop and will require approximately five years to be fully developed.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project. The proposal will be peer-reviewed at Ohio State University prior to submission. The agency will conduct a merit review prior to funding.

FOOD ANIMAL RESIDUE AVOIDANCE DATABASE

Question. Please provide a description of the program that has been funded under the Food Animal Residue Avoidance Database, or FARAD, grant.

Answer. The research is aimed at preventing and mitigating the occurrence of illegal chemical residues in foods of animal origin. This is done by assembling standardized databases of technical information from widespread sources. The data from these sources is used in sophisticated algorithms to calculate appropriate withholding times for producers, veterinarians, and USDA regulators. The goal is both residue prevention or avoidance and residue mitigation of chemical contamination incidents, such as dioxins in milk.

Question. What is the national, regional, or local need for this program?

Answer. There is a continuing need for residue avoidance research and also residue mitigation research. This is of national and local importance to the economic welfare of food producers and all consumers of food products of animal origin.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The original goal was to prevent and mitigate the occurrence of illegal chemical residues in foods of animal origin. FARAD has been successful in accomplishing its goals, but this is an on-going process that continues to be an issue for producers of food animals.

Question. How long has this work been underway and how much has been appropriated, by fiscal year, through fiscal year 2001?

Answer. FARAD began in 1982 and has been supported by a variety of funding sources. However the specific work supported by this grant begins in fiscal year 2001. The appropriation for fiscal year 2001 is $284,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year 2001?

Answer. The non-Federal funds and sources provided for this grant are as follows: Non-Federal support is for the salaries of all the principal investigators and other "in-kind" contributions by the three universities involved. In addition, North Carolina State University has provided approximately $50,000 to support FARAD.

Question. Where is this work being carried out?

Answer. Work is carried out at three cooperating universities: the University of California-Davis, the University of Florida, and North Carolina State University. At the University of California, a bibliographic citation management program and a pharmakokinetic data management program will be developed and maintained. FARAD Access Centers at the University of California and North Carolina State University respond to database inquiries requiring literature research and evaluation. At the University of Florida, an approved drug database will be maintained and a publication of electronic and hard-copy drug compendia will be developed.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The specific work support by this grant begins in fiscal year 2001. This work is on-going, and progress will be reported annually in a progress report requested from the principal investigators.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The specific work supported by this grant begins in fiscal year 2001. As with other projects, the results will be reported in an annual report submitted by the principal investigators.

FOOD ELECTRONICALLY AND EFFECTIVELY DISTRIBUTED (FEED) DEMONSTRATION PROJECT, OREGON

Question. Please provide a description of the project that has been funded under the Food Electronically and Effectively Distributed (FEED) Demonstration Project, Oregon grant.

Answer. CSREES has requested the university to submit a grant proposal that has not yet been received. The brief description available now is that the project is to better coordinate through electronic technology, companies wishing to donate food with transportation companies and independent truckers wishing to help get that food to the food bank's storage locations in order to ultimately feed hungry people.

Question. According to the proposal, or the principal researcher, what is the need for this project?

Answer. Oregon was found to have a very high prevalence of hunger. This finding is as a result of a publication by the USDA-Economic Research Service entitled, "Hunger Across the U.S."

Question. What was the original goal of this project and what has been accomplished to date?

Answer. The original goal of this project is to coordinate transportation to fight hunger. The food bank will be able to take advantage of new interactive on-line information systems that will allow donors to enter donation information, which will link with transportation companies and independent truckers who have the transportation capacity to get donations transported. This program starts in 2001 so there are no data to report on progress.

Question. How long has this work been underway and how much has been appropriated for fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year is $166,633. This work will just be beginning in 2001.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. At this time, there are no non-Federal funds to report.

Question. Where will this work be carried out?

Answer. The work will be carried out across the State of Oregon.

Question. What was the anticipated completion date for the original objectives of the project? Have objectives been met? What is the anticipated date of additional or related objectives?

Answer. The proposal, which has not been received, will outline the objectives of this project.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The project will begin in 2001, so there are no evaluation data yet on this project.

INCOME ENHANCEMENT DEMONSTRATION, OHIO

Question. Please provide a description of the program that has been funded under the Income Enhancement Demonstration, Ohio project.

Answer. The Federal funds support the Agricultural Business Enhancement Center which plays a major role in the development of the agricultural sector of Northwest Ohio. The Center provides a variety of management training programs, helps farmers and other agribusinesses develop comprehensive business plans, and facilitates business networking.

Question. According to the research proposal, or principal researcher, what is the national, regional, or local need for this program?

Answer. The Center seeks to enhance the competitiveness of agricultural firms in Northwest Ohio and create greater economic opportunity for local residents. To be

successful in business, farmers and other agribusiness firms must be able to adapt to a large number of major changes affecting the entire food system, from the farmer to the consumer. These include changes in farm programs, globalization of markets, new technologies, information systems, consumers' concerns for food safety and nutrition, and society's concern for protecting the environment. Individuals, families, firms, and communities in Northwest Ohio need to understand the changes, and develop and implement effective strategies for dealing with change.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The original goal of the project was to help people develop new businesses and restructure and expand existing businesses in order to enhance incomes in Northwest Ohio. The Agricultural Business Enhancement Center conducts economic research on market opportunities, provides a variety of management training programs, helps individual farms and other agribusinesses develop comprehensive business plans, and facilitates networking with businesses in other regions of the U.S. and around the world.

Recent accomplishments include: A group of growers formed a cooperative that was successful in bidding for market locations at two travel centers on the Ohio Turnpike; additional centers will be requested. Perrysburg Farmers Market was organized in 1999. Northwest Ohio Pork Task Force is exploring alternatives to revitalize the area's pork industry. The Center is helping the Ohio Farm Bureau and Ohio Wheat Growers Association examine the feasibility of producing strawboard from wheat straw.

The Center is participating in a USDA/CSREES grant to provide growers with production and business planning assistance for developing hydroponic vegetable production operations. Participants in the first "How to Get Started in Green House Production" gave the seminar very high ratings. A study tour to Ontario, Canada, also was well received.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The project began in 1991. Appropriations have been as follows: $145,000 in fiscal year 1991; $250,000 in fiscal years 1992 through 1995; $246,000 in fiscal years 1996 through 2000; and $245,459 in fiscal year 2001. Appropriations to date total $2,620,459.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The State of Ohio has appropriated the following funds: $35,100 in fiscal year 1991; $72,368 in fiscal year 1992; $56,930 in fiscal year 1993; $30,547 in fiscal year 1994; $49,935 in fiscal year 1995; $51,432 in fiscal year 1996; $48,664 in fiscal year 1997; $53,736 in fiscal year 1998; $56,186 in fiscal year 1999; and $128,200 in fiscal year 2000.

Question. Where is the work being carried out?

Answer. The Agricultural Business Enhancement Center is located in Bowling Green, Ohio and serves eight counties in the Toledo Metropolitan Area. Project leadership is being provided by the Department of Agricultural Economics, Ohio State University, Columbus, Ohio.

Question. What was the anticipated completion date for the original objectives of the project? Have these objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1991 was for a period of 12 months, however, the ongoing needs of producers and agribusinesses to adjust to major changes in the agricultural sector continues to provide the Center with many challenges. The current phase of the program will be completed in 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. CSREES performed the last annual merit review of the project in June 2000. The project is continuing to meet its goal of finding new economic opportunities for people in northwest Ohio. In the last CSREES review it was noted that: "The project director and staff are well qualified to carry out the project and have proved their ability to do so. The project supports CSREES' goals of a highly-competitive production system and enhanced economic opportunity. The proposal was merit reviewed, according to CSREES guidelines, by three Ohio State University faculty members representing the state, district, and local extension."

INTEGRATED COW-CALF RESOURCES MANAGEMENT (CHIPS), IOWA

Question. Please provide a description of the program that has been funded as "CHIPS: Cow-Calf Integrated Resource Management, Iowa Program."

Answer. CHIPS is an integrated cow-calf resource management—IRM—program developed to assist Iowa beef producers in maximizing the profit potential of their individual livestock operations. CHIPS technicians provide technical services to participating cooperators that assist in the decisionmaking process as long-term plans are developed and finalized. The intent of the program is to strengthen the area's economy and at the same time, enhance the competitiveness of the individual's beef operation. CHIPS technicians work one-on-one with participants, offering support and services intended to improve the level of productivity, reduce production costs, and/or incorporate technology systems that are designed to improve the "bottom line". The program has systematically grown to extend services to over 210 beef producers in over 60 Iowa counties.

Question. What is the national, regional, or local need for this program?

Answer. Today's beef industry is both volatile and challenging. Factors and variables that the producer has little or no control over, constantly challenge this rapidly changing industry. To address this volatile and rapidly changing agricultural infrastructure, the CHIPS program has adjusted its direction and focus to meet the ever-changing management and technical needs of Iowa beef producers. CHIPS technicians and support staff work closely with program participants to collect and analyze individual operation data. This information is used to develop management recommendations that enhance the performance and economic stability of the operation. This approach supports individual economic survival as well as strengthening the local and regional economic community.

The CHIPS program also serves the industry by providing leadership and support to industry educational efforts. Working closely with the Iowa State University Extension Service, educational programs and demonstration projects have been developed and delivered, enhancing the educational opportunities provided to Iowa beef producers.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The overall goal of CHIPS is to have a positive effect on the area's economy by improving the long-term profit potential of the local cattle industry. To address this broad project goal, CHIPS has set forth the following objectives: Improve profit potential of cooperator farms; Identify issues and trends in the area of beef management; Provide CHIPS cooperators with intensive technical assistance to develop goals and individualized farm recommendations, including management areas such as pasture and forage production, rations, utilization of resources, record systems, and government farm program compliance; Help producers develop management skills to improve efficiency and reduce costs of production as CHIPS recommendations are implemented.

During fiscal year 2000, CHIPS technicians conducted over 1,317 farm and office visits. Numerous management areas were addressed during these one-on-one contacts. Over 32,000 head of calves and beef cows were weighed and over 6,000 breeding animals were permanently identified. Data collected are used in a variety of record programs, including CowSense and breed association records. Over the past 12 months, CHIPS cooperators completed 139 reproduction-related programs and 26 Standardized Performance Analysis records—incorporating financial and performance information—were individually analyzed. More than 510 forage and soil samples were collected and approximately 325 ration projections were developed for cooperators. As this activity summary indicates, the number of participating cooperators utilizing the record keeping programs and other program services continue to grow and expand.

Networking projects continue to be emphasized by the CHIPS program. Examples include: Direct working relationship with the Chariton Valley Beef organization, CHIPS Heifer Development Program, educational efforts in conjunction with the Iowa Beef Center, and Iowa State University Extension, support a number of existing beef projects, and direct cooperation with the Iowa Quality Beef Program.

Question. How long has the program been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. $138,000 per year was approved for fiscal years 1992 and 1993; $276,000 for fiscal year 1994; $350,000 for fiscal year 1995; $345,000 per year for fiscal years 1996 and 1997; $300,000 per year in fiscal years 1998 and 1999; $250,000 in fiscal year 2000; and $284,373 in fiscal year 2001. Federal funding through fiscal year 2001 totals $2,726,373.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. CHIPS cooperators pay client fees of approximately $3.00 per beef cow. The fee structure is on a sliding scale that adjusts for cow herd size. In fiscal year 2000, approximately $50,000 in client's fees was collected.

Question. Where is the work being carried out?

Answer. The CHIPS program is being operated in six designated technician areas in Iowa. CHIPS services and technical support are currently being offered to beef producers in approximately 60 counties in the following Iowa areas: southeast—16 counties, south central—8 counties, southwest—8 counties, northwest—8 counties, east central—8 counties, and central—12 counties.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met?

What is the anticipated completion date of additional or related objectives?

Answer. Over the past several years, the CHIPS program has made considerable progress in achieving the project's goals. Cooperators are utilizing more of the data collection and record keeping programs that are currently offered. This data collection process has been important as producers make long-term decisions. CHIPS continues to adapt and modify program offerings and services.

The Iowa beef industry now faces a challenging and exciting time period. CHIPS is positioned to be a prominent player in both the development of the Iowa beef industry and the providing of technical support to beef producers throughout the state. In fiscal year 2000, a marketing educational segment was incorporated in the service offerings of CHIPS to assist producers as marketing decisions are finalized.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A CSREES review of the project is conducted annually. The 2000 review was positive, with suggestions made for more widespread dissemination of the results and materials developed, as well as increased emphasis on environmental management with the beef producers.

NATIONAL EDUCATION CENTER FOR AGRICULTURAL SAFETY, IOWA

Question. Please provide a description of the extension project that has been funded under the National Education Center for Agricultural Safety, Iowa grant.

Answer. The mission of the National Education Center for Agricultural Safety—NECAS—is to reduce the level of preventable illnesses, injuries, and fatalities among agricultural populations. The NECAS serves farmers, ranchers, members of their families and their employees, and the people who supply goods and services to agriculture. The center is one of few centers in the world that provides actual hands-on, real life training opportunities. The center also works with rural fire departments, emergency planning agencies, and emergency medical technicians in a multi-state area to provide training for those who respond to rural emergencies.

The NECAS is located in Peosta, Iowa. The facility is located at the Northeast Iowa Community College. Phase Two of construction has just been completed. The facility has a tractor over-turn demonstration area, hog confinement building complete with a manure pit, two silos, and a grain bin that allow the center to provide examples of situations commonly encountered on farms and ranches and teach actual rescue techniques. Additional classes on First Aid, Cardiopulmonary Resuscitation, and First Responder courses are provided for members of farm families.

The Center has assisted local farmers and small corporations to screen workers for employment health risks and conducts programs on hearing loss prevention, use of personal protective equipment, skin cancer prevention, and the identification and mitigation of risks of animal handlers and confinement workers.

The Center operates an 11,000 square foot facility that was funded by the state of Iowa with matching private donations. The USDA grant provides funds for salaries and operating expenses. Donations from individuals and agri-business provide donations of equipment, curriculum, and program development funds. The National Safety Council and Northeast Iowa Community College underwrite additional operating costs not covered by the USDA grant or donations.

Question. According to the extension proposal, or the project director, what is the national, regional, and local need for this program?

Answer. According to information compiled annually by the National Safety Council, there were 770 work-related fatalities among agricultural workers in 1999. The Council also estimates that there were more than 150,000 disabling injuries among agricultural workers in 1999. While deaths have declined by 30 nationwide, disabling injuries have increased by 7 percent since 1998. Approximately 23 out of every 100,000 agricultural workers died from injuries received in workplace incidents. Farm accidents kill the young and the old. Between 100 and 125 children and youth are killed on farms each year.

Fatal injury incidents are preventable, and the number of disabling injuries which occur annually can be reduced. The NECAS has developed interactive training for at-risk audiences, including senior farmers, children and youth, and couples who

work off the farm to earn enough income to remain in the farming business. The Center provides extensive training for those who are first on the scene at farm emergencies. It is often a member of the farmer's family who discovers an accident victim. NECAS trains family members to stabilize this victim until emergency medical help arrives. NECAS also trains rural emergency responders on how to protect themselves when responding to an emergency. These many volunteers respond from their place of business or home and arrive on the scene without protective gear or tools.

An extensive array of programs for youth are offered in a Tri-State Area. NECAS holds safety day camps, fall harvest safety day, chain saw safety, tractor safety, and hunter safety programs.

Question. What was the original goal of this training center and what has been accomplished to date?

Answer. The original and continuing goal of this Project is to develop, implement, and evaluate diverse training methods for met training needs of at-risk agricultural audiences. The Center has recently completed a program in conjunction with the Iowa Fire Marshall's Office to deliver a program on Farm Chemical Awareness through the Iowa Communications Network. This fiber optic network has the capacity of linking more than 100 training sites across the state. More than 700 rural firefighters, from 33 different locations, participated in this six-hour course. The Center recently trained an emergency medical crew from Kansas at the center and has implemented a number of out-reach causes to small businesses and rural fire departments.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant began in fiscal year 1998 with an allocation of $195,000 per year for fiscals year 1998–2000 and for fiscal year 2001 is $194,571. The total appropriation to date has been $779,571.

Question. What is the source and amount of non-Federal funds provided by fiscal year.

Answer. The sources of non-Federal funds are as follows: $450,000 in 1998 from the state of Iowa for construction of the second phase of the facility. Donations from individuals and agri-business companies totaled $75,000. In 1999, contributions of $135,200 were received from individuals, the state of Iowa, and agri-business. In 2000, contributions of $103,875 were received from the State Fire Marshall of Iowa, individuals, and agribusiness sources.

Question. Where is the work being carried out?

Answer. Training and educational programs under the grant are being conducted at the NECAS located on the Northeast Iowa Community College Campus in Peosta, Iowa. NECAS also presents programs at a variety of meetings and participates in agricultural trade shows and events and presents programs upon request to agricultural groups, local fire departments, and agri-businesses at off-site locations.

Question. What was the anticipated completion date for the original objectives of this project? Have the objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The anticipated completion date of the original objectives, was March 31, 2001. Many of the objectives have been met. Anticipated completion of additional objectives is March 31, 2002.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. A CSREES merit review of the project application and site review were conducted in the spring of 1999. Another site visit is scheduled for June of 2001. The project will be completing its fiscal year on March 31, 2001. The National Education Center for Agricultural Safety evaluates all its programs and has supplied USDA with copies of all programs conducted and the evaluations received on each event. The NECAS utilizes external farm safety and health evaluators and has two Advisory Committees to maintain its focus on the most pressing issues affecting the safety and health of our nation's agricultural populations.

PILOT TECHNOLOGY PROJECT, WISCONSIN

Question. Please provide a description of the program that has been funded under the Pilot Technology Project, Wisconsin grant.

Answer. The primary industrial extension activity of the Manufacturing Technology Transfer program is the delivery of technical assistance to manufacturing companies. Executive direction in determining the assistance required is provided by the University of Wisconsin-Stout's Northwest Wisconsin Manufacturing Outreach Center. Direct consultation and long-term in-plant assistance is delivered pri-

marily through the efforts of university project managers. Direct assistance may be delivered through co-op students, staff of the University of Wisconsin System, both two- and four-year institutions, and Extension services; the Wisconsin Technical College System; secondary schools; the private sector, professional societies, and private consultants, or attendance at state or national seminars. The project also draws on many other state resources to add expertise and capacity to network facilitation and in-plant extension activities.

Question. What is the national, regional, or local need for this program?

Answer. America's manufacturers continue to face tremendous global competition. There are enormous pressures to improve the quality of products and reduce the time consumed to bring new products to market, and there remains an ever-increasing demand to reduce the costs of products. Currently there is a strong movement in manufacturing to use speed-to-market combined with new product introduction as a tool to obtain a competitive advantage. Large companies are not the only ones influenced by these trends. Small and medium-size manufacturers often supply directly to the market or are vital elements of a supply chain. Hence, they must be able to respond quickly to changing market conditions while continuously improving productivity and product quality.

Question. What is the original goal of this program and what has been accomplished to date?

Answer. The Manufacturing Technology Transfer program's principal objective is the development of a competitive, secure manufacturing base through the mechanism of industrial extension. The program principally targets small and medium-size manufacturers in rural Wisconsin. This funding will: continue to provide valuable industrial extension service to the target audience; support the continued empirical development of an industrial extension model; and investigate the use of new manufacturing technologies to support global competitiveness of manufacturers. Productivity improvements were reported by the companies showing impressive economic impact to the region through client operations assessments and plant evaluations, strategy development for continuous improvement, implementation of new organizational and operational methods, implementation of new manufacturing technologies, establishment of quality assurance/total quality systems, establishment of ongoing training programs, and on-site instruction in new technologies, improved methods, and processes.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This project has been underway since fiscal year 1992 and was funded for $165,000 per year in fiscal years 1992 through 1995; $163,000 in fiscal years 1996 through 2001; and $162,641 in fiscal year 2001 for a total of $1,637,641.

Question. What is the source of and amount of non-Federal funds provided by fiscal year?

Answer. University of Wisconsin-Stout provides $24,367 as in-kind match. Funds from other state, University, and partner resources are pooled with USDA funds to carry out the described efforts.

Question. Where is this work being carried out?

Answer. The University of Wisconsin-Stout, Menomonie, Wisconsin, carries out the work. From this location, companies are served throughout Wisconsin, but primarily in the northwest counties.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original proposal in 1992 was for a period of 12 months. However, the Manufacturing Technology Transfer program was developed as a continuously evolving industrial extension strategy for serving the needs of the manufacturing community. Success is measured by meeting the objectives of each year's proposal, including the delivery of modernization assistance and development of an industrial extension model. The current phase of the program will be completed in 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. To measure the success of the project, a client evaluation process has been developed which includes an evaluation questionnaire. Evaluations are performed both by program staff and by an objective, third party survey house. Evaluations indicate significant forward strides in job creation, new businesses, expanded productivity, and enhanced international competitiveness. In 2000, the U.S. Department of Commerce performed an agency evaluation of this project. Evaluation highlights showed that the program: provided 191 technical assistance projects for 107 companies; sponsored 35 educational events attended by 436 individuals and 252 companies; helped create or retain 140 jobs; and achieved $13.4 million in economic

impacts. Clients indicated that assistance from the project helped reduce labor costs, reduce material costs, reduce inventory costs, and increase sales. Clients said the program provided affordable, objective assistance and local access to the resources they need to help them prosper.

POTATO PEST MANAGEMENT, WISCONSIN

Question. Please provide a description of the work that has been funded by the Potato Pest Management, Wisconsin grant.

Answer. The goal of work supported by this funding is to advance the use of bio-intensive integrated pest management and reduce reliance on high-risk pesticides. The project is a collaborative effort involving the University of Wisconsin, the World Wildlife Fund, and the Wisconsin Potato and Vegetable Growers Association. Market-based incentives to accomplish these goals will be developed and tested. An environmental, performance-based label standard for Wisconsin fresh market potatoes will be developed. Market research will be conducted to develop a marketing plan, certification, and testing mechanisms to move certified product from Wisconsin fields through the value chain to selected retailers. Environmental indicators and measurement methods will be developed. A pilot project will begin research with selected potato growers to identify key ecosystem conservation opportunities on their lands including crane damage mitigation. A collaboration advisory committee will be formed to help develop a plan for targeted outreach to project growers.

Question. What is the national, regional, or local need for this program?

Answer. In 1996 this grower-university-environmental group partnership in Wisconsin established concrete targets for reducing use of high-risk pesticides in potato production. This innovative, voluntary, multi-stakeholder project can provide the USDA with valuable insights into Food Quality Protection Act—FQPA—transition issues. This project will help develop marketplace incentives that reward farming practices that reduce the impact of agricultural pesticides on health and the environment. This is in response to the growing consumer demand for products that are produced with sustainable methods. The activity benefits Wisconsin by putting its growers in a leading position to capture this expanding market. It offers value-added options to the vegetable industry facing over-production, low prices, and new FQPA regulatory demands.

Question. What was the original goal of this program, and what has been accomplished to date?

Answer. This is the first year that the pesticide risk reduction goals and the integrated pest management measurement system will be combined with developing a marketing strategy for eco-labeled potatoes.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Answer. Fiscal year 2001 is the first year of this Special Grant and $189,582 was appropriated. The project's foundation of applied field research, measurement, and extension has been funded from numerous sources over the past five years. The potato growers, the University of Wisconsin, foundations, the World Wildlife Fund, the USDA grants, and the Environmental Protection Agency support through American Farmland Trust have contributed to the groundwork.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Wisconsin potato growers contribute more than $150,000 annually to support University of Wisconsin research and technology transfer that is critical to the project. The Wisconsin Department of Agriculture, Trade and Consumer Protection has provided $25,000 for value-added marketing.

Question. Where is the work being carried out?

Answer. The work is being done with fresh market potato growers in the following Wisconsin counties: Adams, Columbia, Barron, Green Lake, Langlade, Marquette, Portage, Sauk, Waupaca, and Waushara.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The initial phase of developing the eco-label standard and marketing strategy will be completed this year. Additional research will be needed to improve the environmental indicators incorporated in the standard, to test and improve the marketing strategy, to assist more growers in meeting the standard, and to extend the initiative to processing potatoes and to other vegetable crops grown in rotation with potatoes.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. This is a new project, and a proposal has been requested from the University of Wisconsin. The proposal will be peer reviewed prior to submission to the Agency. The proposal will undergo merit review by Agency staff prior to release of funds.

RANGE POLICY DEVELOPMENT, NEW MEXICO

Question. Please provide a description of the extension program that has been funded under the Range Policy Development, New Mexico grant.

Answer. The Range Policy Development project has collected local economic data throughout the State. Local data have been used to develop an economic model to help explain the relationships between local economies and primary industries. The model enables policymakers to better understand how local and State economies are tied to primary industries, especially those industries that use public lands. The focus of the project is on the livestock grazing industry.

Question. According to the extension proposal, or the principal project investigator, what is the national, regional, or local need for this project?

Answer. In New Mexico and throughout western states, many local economies are dependent on the use and management of public range and forest lands. However, there exists a great deal of disagreement about the true level of dependence of individual communities on these public land-based industries and, consequently, disagreement about the local, statewide, and regional impacts of public policies that alter the use and management of these lands. Through better understanding of how public lands impact local and regional economies, we now can predict the outcomes of potential legislation or amended land use policies, resulting in policies that enhance, rather than detract from, local economies. The model was used to analyze the economic impacts of rangeland reform. The Bureau of Land Management and the Governor's State team chose to use the tool to analyze county alternatives for the State Environmental Impact Statement.

Question. What is the original goal of this program and what has been accomplished to date?

Answer. The model has been requested by the U.S. Forest Service to help improve Region 3 Land Use Plan Amendments in response to newly listed Threatened and Endangered Species. New Mexico is in the process of developing detailed input-out models for each county from local and state tax revenue data. Economists are following up with workshops across the state to present information from economic forecasts to local decision makers. Further, the project calls for increasing the utility of the models by expanding the scope of the database to include oil, gas, cheese processing, dairy, and food livestock industries in addition to the grazing enterprises.

Question. How long has this work been under way and how much has been appropriated through fiscal year 2001?

Answer. This project was initiated in December 1994. In fiscal year 1995, $200,000 was appropriated, in fiscal years 1996–2000, $197,000 per year; and in fiscal year 2001, $196,567. The total appropriation for the project is $1,381,567.

Question. What is the source and amount of non-Federal funds to support this project?

Answer. The project budget does not indicate any non-Federal support. However, Agricultural Research Stations in five other States have economists currently working to expand upon the New Mexico project, ultimately to build a regional model.

Question. Where is this work being carried out?

Answer. This extension project is being carried out at New Mexico State University. Broad regional interest in the project has led to efforts to expand applications to fit other regional sites.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. According to the project director, most of the original objectives of the first phase have been accomplished. The second phase of the project was initiated September 15, 1999. This phase will investigate the hypothesis that recreation—in particular, Federal land-based dispersed recreation—generates sufficient revenue to offset the significant and now documented economic contributions of the consumptive industries, such as range, forestry and mining, and crop and livestock agriculture. Recreation expenditure patterns and economic cycles will be investigated. Production agriculture and range livestock are vital segments of rural economies. These sectors produce sustainable long-term income and wealth and are the basis of the customs and culture of rural economies. The anticipated completion date is September 30, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The proposals for continued funding are subject to merit review each year. The most recent merit review of the proposal for this project was conducted in late spring of 2000. The review focused upon the relevance of the project goals, the suitability of the proposed research methods, and the progress to date of the project. The review determined that adequate progress had been made toward fulfilling the objectives of the second phase of this project.

RURAL DEVELOPMENT, ALASKA

Question. Please provide a description of the program that has been funded under the Rural Development, Alaska project.

Answer. This program provides technical assistance to small business to create and retain jobs in rural, under-served areas of Alaska and to stimulate local economies. The Southeast Alaska component will focus on forest-oriented, home-based and cottage businesses. The Western Alaska component is focusing on youth entrepreneurship, workforce development, e-commerce, and tourism.

Question. What is the national, regional, or local need for this research?

Answer. Remote areas in Alaska and other parts of the U.S. are struggling to survive in today's very competitive international marketplace and with the many management and policy changes being deployed on public lands. Alaska's indigenous population needs technical assistance to help them define new economic opportunities. Strategies and development tools designed in this region can be utilized in other areas of the United States and territories.

Question. What was the original goal of this program and what has been accomplished?

Answer. The original goal of the program was to create new economic opportunities in remote areas of Alaska. The project has been underway only a few months and project goals have not been accomplished to date.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This project was begun in fiscal year 2000. Appropriations include $276,285 for fiscal year 2000 and $616,640 for fiscal year 2001. The total amount appropriated is $892,925.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. No non-Federal funds have been provided for this project.

Question. Where is this work being carried out?

Answer. The work is being carried out by the University of Alaska Fairbanks Cooperative Extension Service.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The initial project proposal has a completion date of September 30, 2002. The proposal for fiscal year 2001 funding has not been submitted to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The initial project proposal underwent a merit review within the agency. Since the project is recently initiated, no reviews have been conducted to date.

RURAL DEVELOPMENT THROUGH TOURISM, NEW MEXICO

Question. Please provide a description of the program that has been funded under the Rural Economic Development Through Tourism, New Mexico project.

Answer. The Rural Economic Development Through Tourism Project—REDTT—involves applied research and outreach focused on locally-based tourism development strategies to enhance economic opportunity in small and rural communities in New Mexico. Components of the agenda support training of local leadership and tourism professionals, strategic planning and market development, and technical assistance to communities.

Question. What is the national, regional, or local need for this program?

Answer. This is an ongoing pilot to demonstrate the effective development and implementation of applied research, training, education, and technical assistance related to rural tourism as a development strategy. The grant has demonstrated that a long-term commitment of resources and activity can lead to effective development of tourism resources and build new market opportunities and tourism products for small communities. As rural America and farmers and ranchers seek out new eco-

nomic opportunities, this proposal has strong potential for contribution to a national strategy in rural tourism development.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The applied research and outreach project was designed by the State Cooperative Extension Organization to increase the ability of the public sector to enhance economic opportunity for rural communities through tourism development. A regional task force composed of Extension professionals and community leaders from business, industry, education, and government—local, state, and Federal—was developed to guide and advise the development and implementation of locally-based programming and research. The results include video training materials, a public relations package, image studies and profiles, regional tourism guides, development of tourism bus packages, festival planning workshops, development of regional tours, and a mini-grants program for tourism development.

Question. How long has this work been underway and how much has been appropriated through fiscal year 2001?

Response . In fiscal years 1992 through 1995 the amount of $230,000 was appropriated. The appropriation for fiscal years 1996–1997 was $227,000 per year; for fiscal year 1998 was $247,000; for fiscal years 1999–2000, $280,000 per year; and fiscal year 2001, $279,384. Total appropriated funds to date is $2,460,384.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Fiscal year 1992 included $38,764 in state matching funds. Fiscal years 1993, 1994, 1995 and 1996 included $39,360 of state matching funds. Fiscal years 1997 and 1998 included $39,040 state matching funds and fiscal year 2000 included $50,804 in state matching funds. The proposal for fiscal year 2001 has not been submitted to date.

Question. Where is this work being carried out?

Answer. Applied research and outreach is being carried out through New Mexico State University.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original completion date was September 30, 1993. The original objectives of this research have been met. The additional objectives presented for the 2000 year will be completed by March 31, 2001. The fiscal year 2001 proposal has not been submitted to date.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency evaluates the merit of research proposals as they are submitted. No formal evaluation of this project has been conducted. The principal investigators and project managers submit annual reports to the agency to document impact of the project. Each year, the project has demonstrated accomplishments in the reports submitted. Impacts include increases in attendance of local festivals, increase in the number of tour bus visits to New Mexico, training to over 700 tourism employees in the region, and establishment of a number of new businesses. Agency evaluation of the project includes peer review of accomplishments and proposal objectives and targeted outcomes.

RURAL REHABILITATION, GEORGIA

Question. Please provide a description of the program that has been funded under the Rural Rehabilitation, Georgia project.

Answer. The program has tested the feasibility of providing satellite-based adult literacy education, in association with vocational rehabilitation services, to handicapped adults in rural Georgia. The program has developed curriculum, tested and adapted technology, established student recruitment and retention strategies, expanded to statewide coverage, and provided successful adult literacy education. Current proposal is addressing technology based literacy education.

Question. What is the national, regional, or local need for this program?

Answer. A state task force has estimated that 25 percent of Georgia's adult population is functionally illiterate. Functional illiteracy is regarded in Georgia as a form of disability. This project and other interests in Georgia have determined functional literacy to be a major issue. While this project proposal is based on state needs, similar problems exist throughout the country with various targeted populations.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. The original goal of this program was to prove that distance learning can be an effective tool for reaching and teaching functionally illiterate adults in rural areas. This program has demonstrated that satellite-based literacy training, in cooperation with vocational rehabilitation services, can successfully provide adult literacy education designed to improve critical reading, writing, and thinking skills for handicapped rural adults. Over the past nine years, test scores and attendance and completion rates of students in the satellite-based program have shown that distance learning is an effective delivery system for instructing low-level readers and non-readers. Test scores and attendance rates of students in this program have been comparable to those of students in traditional urban classes. The project is currently working to perfect a process for Internet-based instruction and student assessment.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Funding for this program was initially appropriated in fiscal year 1989, and the program has been in operation since March 1989. Through fiscal year 1998, appropriations for this program have been as follows: $129,000 in fiscal year 1989; $256,000 per year in fiscal years 1990 through 1992; $250,000 per year in fiscal years 1993 through 1995; $246,000 per year in fiscal years 1996 through 1998; $236,160 for fiscal year 1999; $246,000 in fiscal year 2000; and $245,469 in fiscal year 2001, for a total of $3,112,619.

Question. What is the source of and amount of non-Federal funds provided by fiscal year?

Answer. The fiscal year 1998 source of non-Federal funds provided for this program are state appropriated funds from the Georgia Department of Adult Education. Prior years sources also included private contributions from the Woodruff Foundation and other local foundations. Through fiscal year 1998, the total amount of non-Federal funds provided for the project has been $8,006,901. The breakdown by fiscal year is: $164,000 in fiscal year 1988; $270,500 in fiscal year 1989; $809,675 in fiscal year 1990; $656,765 in fiscal year 1991; $65,000 in fiscal year 1992; $1,019,821 in fiscal year 1993; $20,000 in fiscal year 1994; $872,500 in fiscal year 1995; $1,500,000 in fiscal year 1996; $1,319,320 in fiscal year 1997; and $1,309,320 in fiscal year 1998. $236,160 in non-Federal funds was provided for the 2000 budget year by project partners. The proposal for 2001 funding has not been submitted to date.

Question. Where is this work being carried out?

Answer. The Georgia Tech Satellite Literacy Project is sponsored and operated by four organizations: Georgia Institute of Technology's Center for Rehabilitation Technology, the Center for Rehabilitation Technology, Inc., Literacy Action, Inc., and the Georgia Department of Technical and Adult Education. The program grantee is CRT, Inc., a private, not-for-profit business advisory board to the Center for Rehabilitation Technology, College of Architecture, Georgia Institute of Technology, from which the literacy instruction has been provided.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. It was anticipated that it would take 3 years to demonstrate that distance learning can be an effective tool for reaching and teaching functionally illiterate adults in rural areas. That original objective was met in fiscal year 1991. Additional objectives since fiscal year 1991 have been to expand the outreach of the satellite based adult literacy program to enough additional sites throughout the State of Georgia so that all potential participants have reasonable access to the program, and to continually upgrade the quality of class programming and the technical capacities of the system. The fiscal year 1997 technological upgrades expanded the capacity of the program more than twenty-five-fold, from seventy-seven to over 2,000 downlink sites, and a six-fold increase in broadcast hours, and made materials available as supplemental tools to all Georgia literacy classes. As of December 1997, the Georgia Tech Satellite Literacy Program was in a period of transition from that of providing literacy instruction via direct television broadcasts to classrooms to that of development and dissemination of technology-based instructional aids. The project has been renamed the Lifelong Learning Network, or LNN. This change was made based upon the request of the major sponsor, the Georgia Department of Technical and Adult Education, Office of Adult Literacy. The LNN will develop and produce video-based instructional supplements, technology-based curriculum and training for adult literacy practitioners, and multi-media projects for literacy students. The completion date for fiscal year 2000 funding proposal is March 1, 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. The agency receives annual reports on the project that are used, together with agency merit review, to assess its progress. Based on these reports, the agency has found that the project has made steady progress in demonstrating the feasibility of utilizing distance learning technology and teaching methods to provide adult literacy education programs to handicapped adults throughout the State of Georgia. The project has been successful in applying the latest distance education technology to both control the program cost per participant and, most recently, to expand the availability of the program. The proposal is peer reviewed within the agency for compliance with program guidelines and project merit each year.

TECHNOLOGY TRANSFER PROJECTS, OKLAHOMA AND MISSISSIPPI

Question. Please provide a description of the program that has been funded under Technology Transfer Projects, Oklahoma and Mississippi.

Answer. The original work involved the transfer of uncommercialized technologies from Federal laboratories and universities to rural businesses and communities. The objectives have evolved to providing more one-on-one assistance to small manufacturers. This type of assistance responds to the stated needs of a small manufacturing community and meets a recognized gap in the existing service provider community. In turn, this innovative and unique program has opened an entirely new clientele base for the Cooperative Extension Service.

Question. What is the national, regional, or local need for this program?

Answer. While every community, state, region, and even nation has a vital need for exploring, understanding, and developing technology, many do not have the necessary resources to meet this need. As an example, the Internet has many potential possibilities for education and business to entertain, but without investigation, these potential users will probably not utilize these technologies until they have been demonstrated to be worthwhile and effective. This puts those groups at a disadvantage with the potential for them to fall farther and farther behind. Projects such as the Technology Transfer Project provide a way for these groups to take advantage of these technologies in the adoption process and integrate them into their operations, thus enhancing their position. Mississippi is in particular need in this respect because of the very low economic resources and rural nature of the state. The Oklahoma Manufacturing Extension Partnership has received national acclaim for its noteworthy and highly effective partnership with the land-grant universities.

Question. What is the original goal for this program and what has been accomplished to date?

Answer. The original goal for the project was the exploration, evaluation, development, and education-transfer of innovative technologies to rural businesses, communities, and governments.

Within the activities of this project, numerous technologies have been explored and evaluated for potential use by various groups. Technologies such as microcomputers, satellite dishes, Geographic Information System—GIS—technology, remote sensing technology, the Internet, computer networking, cellular telephones, specialized software and wireless communications have all been evaluated and educational programs developed. Rural communities and governments have been primary targets of the educational activities associated with the project since its inception. With the educational objective of this project being a primary factor, numerous workshops have been provided to teach clientele how to best utilize these technologies. Demonstrations, either as pilot projects or as exhibits and presentations, have been utilized in many areas to extend dissemination of information and skills.

Question. How long has the work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. Funding appropriated to date is as follows: $350,000 per year in fiscal years 1984 and 1985; $335,000 in fiscal year 1986; $333,000 per year in fiscal years 1987 through 1990; $331,000 per year in fiscal years 1991 through 1995; $326,000 per year in fiscal years 1996 though 2000; and $325,283 in fiscal year 2001. Total appropriations are $5,977,283.

Question. What is the source and amount of non-Federal funds?

Answer. Oklahoma State University and Mississippi State University—MSU—have provided considerable amounts of matching support from state funds over the life of the project. Over the past five years, support has included a significant portion of engineering faculty salaries as well as the administrative support of county and district extension staff. Matching funds have been at least equal to the amount of the project funds in the last 10 years. Matching funds have included faculty salaries, technology equipment costs, travel, supplies, and administrative support. If all monies required to develop and implement technologies associated with this project were counted, the total would be far greater than the Federal funds provided. For

example, equipment expenditures in MSU Extension to support technology activities in the past year alone were $500,000.

Question. Where is this work being carried out?

Answer. The work is being carried out by Mississippi State University and Oklahoma State University and, more importantly, on the shop floors of the small rural manufacturers. In Mississippi, work related to this project is also being carried out in some community colleges, on the Internet, and in every county. Demonstrations, educational workshops, Internet access, video-conferencing sessions, satellite conferences, and one-on-one sessions have been conducted in businesses, local government offices, Extension offices, schools, farms, and even homes, where appropriate. In Oklahoma, the program is being delivered in the Southeastern quadrant of the state where the counties are in the lower tier of per-capita income and have higher than average unemployment.

Question. What is the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. The original project objectives were to be completed in 12 months and have been met. However, the technology transfer process is continuous because the pace of introduction of new technologies is ever increasing and the gap between the technological competence and utilization by rural and urban manufacturers is ever widening. New specific and measurable objectives have been developed each year. The achievement of those objectives has been documented in annual reports. The objectives of both programs have been the delivery of high-quality engineering assistance and technology transfer services to small manufacturers, conducting joint workshops, client referral, joint research and application projects, and demonstration of value of service to clients. The current phase of the program will be completed in fiscal year 2001.

Question. When was the last agency evaluation of this project? Provide a summary of the last evaluation conducted.

Answer. In Mississippi, site visits and merit reviews have been conducted by university evaluators annually as well as client surveys by project staff themselves. Survey results have documented job creation, productivity enhancement, and local community economic activity. The Technology Transfer Program has impacted the integration of emerging technologies that are benefitting the citizens, ranging from assisting small businesses and industries in integrating new computer hardware and software for conducting electronic commerce, to providing extensive on-line information resources. The Technology Transfer Funds have served as a catalyst for the development of a long-range telecommunications network plan for the total extension service to link all county extension offices and research centers directly to the Mississippi data/video backbone and provide access to the Internet. Evaluations are conducted on every educational workshop and activity.

In Oklahoma, appraisal of program performance was conducted by the Oklahoma Alliance for Manufacturing Excellence in the year 2000. The impact for the companies served was valued at $13.7 million and the economic value of the number of new jobs created and saved was $8.9 million. During fiscal year 2000, client satisfaction surveys were conducted and the program and its staff were rated very high. A U.S. Department of Commerce review during fiscal year 2000 indicated that the Oklahoma program should serve as a national model.

VOCATIONAL AGRICULTURE, OKLAHOMA

Question. Please provide a description of the program that has been funded under the Vocational Agriculture, Oklahoma grant.

Answer. CSREES has requested that the Retired Educators for Agricultural Programs—REAP—a 501(c)3 organization, submit a grant proposal that has not yet been received.

Question. What is the national, regional or local need for this program?

Answer. The need for this outreach effort is due to the diminishing numbers of African American agriculture education teachers in Oklahoma and the scarcity of the African American youth enrolled in vocational agriculture and participating in 4–H and FFA programs.

Question. What was the original goal of this research and what has been accomplished to date?

Answer. The original goal of this program was to build a foundation to promote personal and economic opportunities in agriculture for African American youth in Oklahoma through project development and partnerships with educational and other community resources.

Question. How long has this work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. The work supported by this grant begins in fiscal year 2001 and the appropriation for fiscal year 2001 is $275,393.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. The Oklahoma Department of Agriculture has provided funding to the project over the past three years as follows: $52,500 per year in fiscal years 1999 and 2000 and $49,500 in fiscal year 2001. The Oklahoma Conservation Commission, in cooperation with the Oklahoma Natural Resources Conservation Service, has provided to REAP $25,000 in fiscal year 1998, $50,000 in fiscal year 1999, and $95,630 in fiscal year 2000.

Question. Where is this work being carried out?

Answer. A pilot program has been conducted in Creek, Muskogee, Okfuskee, Okmulgee, and Tulsa counties in Oklahoma. The pilot also reached Logan, Oklahoma, and Seminole counties. Non-Federal funding listed above helped to carry out these pilot projects.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the anticipated completion date of additional or related objectives?

Answer. This is an ongoing project with the objective of involving more African American youth in agriculture education programs. Since the program inception in 1994, more than 100 young students have become involved and pursued additional education in the field of agriculture.

Question. When was the last agency evaluation of this project? Provide a summary of the evaluation conducted.

Answer. This is the first year the Retired Educators for Agricultural Programs has received funding from the agency. An evaluation will be conducted upon completion of the project.

WOOD BIOMASS, NEW YORK

Question. Please provide a description of the program that has been funded under the Wood Biomass, New York grant.

Answer. The goal of the project is to facilitate the commercialization of willow biomass crops as a locally grown, renewable feedstock for bioproducts and bioenergy in the Northeastern and Midwest regions of the U.S. The goal will be reached by simultaneously applying research results to optimize the production system to produce the highest yields at the lowest possible cost, educating potential producers so that they can make informed decisions about producing the crop, educating other key target audiences, and by expanding markets for bioenergy and bioproducts. The scenario is challenging because there is currently not enough willow biomass established to fulfill market needs, while at the same time there are currently no long-term commitments that will assure producers of a stable market in the future.

Question. According to the extension proposal, or the principal researchers, what is the national, regional, or local need for this project?

Answer. The researchers hypothesize that the project is of national interest. This project will serve as a model for bringing other closed loop biomass feedstocks through the research, development, and deployment phases to commercialization. Research on biomass crops spans more than 20 years at USDA and the Department of Energy during which time-significant progress has been made. Several of these crops, including willow biomass crops, are now poised to make the next step towards commercialization. However, as is the case with any new crop, ongoing research will be necessary to optimize crop production and improve returns to local producers. The near-term energy market strategy for willow biomass is co-firing at pulverized coal power plants. Longer-term conversion uses include gasification and combined heat and power systems. Increased effort by other outside groups is focused on the fabrication of new biobased materials and chemicals from willow biomass as an alternative to products currently derived from non-renewable fossil fuels. A major benefit of the willow biomass cropping system is the production of environmental and social benefits simultaneously with renewable energy and bioproducts. Benefits include offsetting carbon emissions from fossil fuels, reduced power plant emissions when the biomass is co-fired with coal, rural economic development, reduction in soil erosion and non-point source pollution associated with conventional agriculture, and the creation of wildlife habitat. These efforts can play a major role in bolstering America's farm and forestry sectors, increasing energy independence, strengthening the protection of the environment, mitigating waste problems, and enhancing recycling policies and practices. The production, quantification, and valuation of these

benefits is essential in order to make the system economically viable under the current electric energy industry structure.

Question. What was the original goal of this program and what has been accomplished to date?

Answer. Overall program goals are: (1) Promote willow biomass crops as an alternative farm crop for domestically produced, renewable bioproducts and bioenergy. (2) Provide verification of scale-up estimates of yields and production costs from small research plots to commercial size fields. (3) Test and refine the production system for willow biomass crops, which will provide a base of experience and knowledge to launch commercial production. (4) Facilitate information exchange among the diverse groups of participants in the project (e.g. farmers, agricultural specialists, natural resources professionals, scientists, business interests, economists, engineers, policy makers). (5) Cooperate with the Salix Consortium to advance prospects for the commercialization of willow biomass systems.

Significant progress towards these goals has been made. Focused outreach and education efforts by the State University of New York—Environmental Science and Forestry—the South Central Resources Conservation and Development, and Cornell Cooperative Extension Service have produced a positive change among many target audiences. The focus of inquiries has changed from knowledge level questions to how they can participate in the program either as potential producers of willow biomass crops or as contractors involved in the establishment and management of the crop. Over 100 landowners, representing over 4,000 acres of land in central and western New York State, have expressed interest in participating in the large-scale demonstration project. New planters, which have been modified by staff in the Department of Agricultural and Biological Engineering at Cornell University, have increased planting efficiency for willow crops from 0.5 acres per hour to 2.5 acres per hour. The first 120 acres of willow biomass crops, including 20 acres planted specifically under this project, grown at a commercial scale are due to be harvested in the winter of 2001.

Question. How long has work been underway and how much has been appropriated by fiscal year through fiscal year 2001?

Answer. This aspect of the program began with an appropriation of $200,000 in fiscal year 1995. An additional $197,000 was appropriated by the Congress for fiscal years 1996 through 2000, and $196,567 in fiscal year 2001. The total amount appropriated is $1,381,567.

Question. What is the source and amount of non-Federal funds provided by fiscal year?

Answer. Four state partners and approximately 18 private partners contribute resources at a ratio of nearly 1.5 to 1 for this project.

Question. Where is the work being carried out?

Answer. The fieldwork is being conducted on private and state land near Syracuse, New York. Tours of the demonstration farms in the last year alone have been conducted for numerous groups including high school and university students, two national conferences, and visitors from four different countries. Presentations have been given at numerous local, regional and national events including the National Farm Bureau meeting, the Chautauqua Institution, the International Poplar Council meeting, International Energy Agency meetings. Outreach and educational activities have been conducted at research locations in several other states including Delaware, Maryland, New Jersey, Pennsylvania, and Vermont.

Question. What was the anticipated completion date for the original objectives of the project? Have those objectives been met? What is the completion date of additional or related objectives?

Answer. The completion date for the original award was September 30, 1996. Due to some delays in crop establishment related to weather and landowner agreements and the need to monitor and harvest the original plantings at the end of the first rotation of 4 years, the completion date is now 2003. Several new dimensions have been added to the project as well.

Question. When was the last agency evaluation of the project? Provide a summary of the last evaluation conducted.

Answer. A field review of the project was conducted on August 20–21, 1997. Excerpts from the review report include (1) positive accolades for their regular reporting; (2) positive accolades for the outreach effort being conducted by Cornell University; (3) praise for the scientific outreach by the principal investigators; (4) praise for connecting the willow program to poultry waste and riparian issues in New York state; and (5) praise for gaining the acceptance of willow biomass as an agricultural crop for state property tax purposes. On the concern side, the agency's project administrator flagged the delay in establishing the demonstration farm and requested

diligence in bringing this aspect of the project to fruition. Subsequent reports from the project reveal that this aspect has been satisfactorily addressed.

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2002

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[The following testimonies were received by the Subcommittee on Agriculture, Rural Development, and Related Agencies for inclusion in the record. The submitted materials relate to the fiscal year 2002 budget request for programs within the subcommittee's jurisdiction.]

PREPARED STATEMENT OF THE AD HOC COALITION

Mr. Chairman, Members of the Subcommittee, this statement is respectfully submitted for the hearing record on behalf of the ad hoc coalition [1] composed of the organizations listed below. The coalition supports sustained funding for Title I of Public Law 480 at a baseline program level which is not less than last year's level and which will preserve the program as a long-term food aid and market development initiative for American agriculture.

The principal focus of this testimony is to request that Title I funding for fiscal year 2002 be restored to a sustainable level for needed humanitarian assistance abroad and market development for American agricultural products. For fiscal year 2001, the program level was $159.7 million. Unfortunately, the President's budget for fiscal year 2002 requests an appropriation which would support a program level of only $139 million. At the very least, Congress should sustain the program level established for fiscal year 2001, and should further evaluate carefully the need to increase the Title I program level in each succeeding year.

Although the coalition favors a higher Title I program level than the Administration proposes, the coalition does support the Administration's request for $835,159,000 for Title II donations. Under the Food for Progress program, the Administration estimates that $94 million in Commodity Credit Corporation (CCC) funds will be used to support Food for Progress donations in fiscal year 2002, including $64 million for the purchase of approximately 229,000 metric tons of commodities and $30 million for transportation and other non-commodity costs. The coalition welcomes this continued commitment of CCC funding for Food for Progress. The Administration, moreover, pledges to maintain significant levels of shipments under the regular Section 416(b) program when CCC inventory stocks are available. Commodities will be shipped over the next year to complete the Section 416(b) programming approved during 2000 and to provide for new programming, including programming for the President's Global Food for Education Initiative, which currently consists of 632,533 metric tons of commodities to 38 countries valued at more than $130 million, as discussed more fully below. The coalition strongly applauds

[1] The ad hoc coalition is composed of USA Rice Federation, National Association of Wheat Growers, Wheat Export Trade Education Committee, US Wheat Associates, National Council of Farmer Cooperatives, American Soybean Association, American Maritime Congress, Maritime Institute for Research and Industrial Development, Transportation Institute, TECO Transport Corporation, National Barley Growers Association, US Canola Association, National Sunflower Association, National Corn Growers Association, and Liberty Maritime Corporation.

this initiative, and believes that it will become a pillar of U.S. humanitarian assistance for many years to come.

AN OVERVIEW OF U.S. FOOD ASSISTANCE PROGRAMS

Mr. Chairman, the scope and magnitude of U.S. food aid in recent years has been remarkable. As shown in the attached charts prepared by Foreign Agricultural Service (FAS), the fiscal year 2000 food aid program reached a total of 95 countries, more than half the countries in all the world. The destinations for U.S. food aid last year included 45 countries in Africa, 17 in Asia and the Middle East, seven in Europe, 14 in Latin America and the Caribbean, two in the Near East, and 10 in the Newly Independent States of the former Soviet Union. (See Attachment I.) These 95 recipient countries received donations or concessional sales of 35 different commodities. (See Attachment II.) In fiscal year 2000, USDA-administered programs were responsible for 4.6 million metric tons of shipments, and US AID administered Title II shipments totaled 2.1 million metric tons, for a combined food assistance program of 6.7 million metric tons, valued at more than $1.4 billion.

The President's Global Food for Education Initiative, on a pilot program basis this year, is expected to provide up to 9 million needy children with nutritious school lunches. Ultimately, this innovative program is expected to provide food donations worth $300 million per year. Other major initiatives in recent years have included the Russia Food Aid Package and the Ethiopia/Horn of Africa program. The latter distributed about 800,000 metric tons of food in Ethiopia to avert famine in 2000.

While our bounty continues to meet many emergency food assistance requirements around the globe, Congress should keep in mind that long-term market development for American agriculture is an important goal. That goal is one of the purposes of Title I.

THE TITLE I PROGRAM PROMOTES LONG-TERM MARKET DEVELOPMENT

Mr. Chairman, the 1996 Farm Bill directs the Secretary of Agriculture to give priority in negotiating agreements under Title I to developing countries that have the demonstrated potential to become commercial markets for competitively priced U.S. agricultural commodities. The concessional sales market of today will become the commercial market of tomorrow. In an intensely competitive world agricultural marketplace, the United States must use its concessional sales program to gain access, establish a foothold and build relationships upon which future commercial trade in agricultural commodities can depend.

Under the Public Law 480 Title I program, the United States has made concessional sales of commodities with a total value of about $31.2 billion since 1955. Along with other export enhancement programs, Title I has proved to be a catalyst for strong, long-term growth in U.S. agricultural exports. With the benefit of sustained market-development initiatives, the value of U.S. farm exports rose to an all-time high of nearly $60 billion in 1996. After declining to $49 billion in 1999, the value of total U.S. farm exports has recently regained some ground, reaching a level of $53 billion in 2000.

The United States must intensify its efforts to develop new overseas markets for U.S. farm commodities. With deeply depressed farm prices and strong competition from a host of producing countries, the need for enhanced market development funding has seldom been greater. Congress should increase its market development program and certainly should not cut the program level for Title I as recommended by the Administration. Title I has proved its worth over decades of experience.

THE SHARP DECLINE IN TITLE I FUNDING

Throughout the 1980s, Congress maintained high funding levels for the Title I program. Unfortunately, Title I program levels experienced a sharp drop at the beginning of the last decade—from $725.3 million in 1990 to $395.3 million in 1991. The value of commodities shipped dropped below $200 million in 1995, and (except for extraordinary CCC-funded Russian shipments) has remained near this historical low since then. For fiscal year 2000, concessional sales and donations of about 1.2 million metric tons of commodities valued at $233 million were programmed to 12 countries under Title I and the Food for Progress program using Title I funds, including carryover funds from prior years.

Mr. Chairman, the carryover in the Title I program account at the beginning of fiscal year 2000 had been significantly higher than the historical average, and Congress cut back the level of new budget authority for that fiscal year in order to permit the FAS to draw down on the unobligated reserves in the program account. This has been done. At the beginning of fiscal year 2000, the carryover was approximately $170 million; at the beginning of fiscal year 2001, this had been reduced to

about $50 million, an amount which is considered a prudent reserve level by program managers. Unfortunately, the Title I program level requested by the administration for fiscal year 2002 represents a $20 million reduction from the fiscal year 2001 program and is a little more than 10.7 percent of the peak 1965 Title I program level, ($1.3 billion in commodity value). In inflation-adjusted dollars, the Title I program has lost about 97 percent of its value to American farmers since the record-setting year of 1965. The coalition believes that it is important now to stabilize funding, stop the persistent downward trend, and begin to increase resources devoted to this critical and proven program.

A RENEWED COMMITMENT TO MARKET DEVELOPMENT FOR AMERICAN AGRICULTURE

Mr. Chairman, Congress has maintained since World War II a strong bipartisan commitment to market development for U.S. agricultural commodities. Until the mid-1960s, Title I shipments accounted for about 20 percent of the annual value of all U.S. agricultural exports. The concessional sales program was a principal catalyst for market development through the 1970s, when the total value of U.S. agricultural exports increased nearly six-fold—from about $7 billion in 1970 to $40.5 billion in 1980. The program was funded at high levels during periods of war and peace, even during periods of large Federal budget deficits.

The time has come, Mr. Chairman, to reemphasize the importance of concessional sales and to revitalize the program. The time has come for a renewed commitment to this historic initiative, a program that has blazed a trail for billions of dollars in commercial shipments of American agricultural products. However, in making this renewed commitment, both Congress and the Administration should seek to improve the program's effectiveness in the economy of the twenty-first century.

Under current criteria, a developing country is considered eligible for Public Law 480 Title I if it has a shortage of foreign exchange earnings and has difficulty meeting all of its food needs through commercial channels. The program managers at FAS should review country eligibility standards, ensuring that all eligible countries are actively considered. There must surely be a substantial market for Title I concessional sales—during 1999 and 2000, donations of food under USDA-administered programs totaled 12.3 million metric tons. Many countries currently receiving Section 416(b) and Food for Progress donations can be expected to graduate to Title I concessional sales arrangements. The shift from Section 416(b) donations to Title I participation could be rapid, and both FAS and Congress should prepare for this eventuality.

There has been legitimate concern that many eligible countries are reluctant to sign agreements following allocations at the beginning of a fiscal year. Perhaps FAS should establish a reasonable deadline for participation under concessional sales terms. The allocations for countries choosing not to participate could be shifted to other countries, well in advance of the close of the fiscal year. This reform could reduce the occasionally excessive carryover of unobligated balances, and help to ensure that program benefits are extended to all eligible countries. As Congress turns to new farm legislation this year, the need for more program flexibility should be addressed. The current cap of 500,000 metric tons of shipments under Food for Progress seems to make little sense. If this cap were lifted, Title I funding in greater amounts could be allocated to Food for Progress. This and other reforms could strengthen the concessional sales program, along with its companion program, Food for Progress.

CONCLUSION

Mr. Chairman, the United States has shipped food assistance in record amounts over the past two and one-half years and large shipments are expected to continue throughout the remainder of this year. Congress and the Administration deserve great credit for this humanitarian effort. But extraordinary food aid shipments will not last forever. American farmers require strong commercial markets to maintain their share of world trade in agricultural commodities.

In 1996, U.S. agricultural exports accounted for nearly 23 percent of total world agricultural trade by commodity value. As noted above, the value of U.S. agricultural exports has declined by nearly 12 percent since the record was set in 1996. Farm prices are depressed. Overseas competitors have enjoyed record crops. Traditional markets have been destabilized by economic upheavals. The response must include a renewed commitment to proven market development strategies, such as Title I of Public Law 480, by restoring the program to at least the fiscal year 2001 level.

PLANNED U.S. FOOD AID FOR FY 2000
REGION BY COUNTRY SUMMARY
Metric Tons

REGION/COUNTRY	PUBLIC LAW 480				SECTION 416(b)		FOOD FOR PROGRESS			COUNTRY TOTALS
	Title I	Title II	Title II/WFP	Title III	Regular	WFP	Title I	Section 416(b)	CCC Purchases	
	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT
AFRICA										
Angola	24.74	38.41	53.12	--	35.00	40.00	--	--	--	191.27
Benin	--	5.84	0.28	--	--	--	--	--	--	6.12
Burkina Faso	--	25.36	0.85	--	--	--	--	--	--	26.21
Burundi	--	--	0.70	--	--	10.00	--	--	--	10.70
Cameroon	--	--	0.23	--	--	--	--	--	--	0.23
Cape Verde Islands	--	20.65	--	--	--	--	--	--	--	20.65
Central African Rep.	--	--	0.11	--	--	--	--	--	--	0.11
Chad	--	2.50	3.82	--	--	--	--	--	--	6.32
Congo, Democratic Rep.	--	--	--	--	--	10.72	--	--	--	10.72
Congo	--	--	4.15	--	10.00	7.40	--	--	--	21.55
Cote D'Ivoire	--	--	--	--	--	--	--	--	--	--
Djibouti	--	--	2.77	--	--	5.00	--	--	--	7.77
Equatorial Guinea	--	--	--	--	--	--	--	--	--	--
Eritrea	--	--	5.03	--	29.50	78.50	--	--	--	113.03
Ethiopia	--	257.61	65.50	--	90.00	390.00	--	--	--	803.11
Gambia	--	3.78	1.34	--	--	--	--	--	--	5.12
Ghana	--	69.18	0.62	--	--	--	--	--	10.00	79.80
Guinea	--	3.50	7.40	--	3.20	--	--	--	--	14.10
Guinea-Bissau	--	--	--	--	--	--	--	--	--	--
Kenya	--	16.07	47.26	--	--	93.00	--	--	--	156.33
Lesotho	--	--	--	--	--	--	--	--	--	--
Liberia	--	2.97	2.80	--	--	1.50	--	--	--	7.27
Madagascar	--	15.24	2.26	--	--	--	--	--	--	17.50
Mali	--	17.20	--	--	--	--	--	--	--	17.20
Malawi	--	12.78	--	--	--	--	--	--	--	12.78
Mauritania	--	1.79	1.77	--	--	--	--	--	--	3.56
Mozambique	--	80.46	8.03	--	--	--	--	--	--	88.49
Nambia	--	--	0.72	--	--	--	--	--	--	0.72
Niger	--	4.00	--	--	--	--	--	--	--	4.00
Nigeria	--	--	--	--	--	--	--	--	1.30	1.30
Rwanda	--	5.00	24.32	--	--	12.50	--	--	--	41.82
Sahel Region	--	--	--	--	--	--	--	--	--	--
Senegal	--	--	0.55	--	--	20.00	--	--	12.70	33.25
Sierra Leone	--	24.53	18.95	--	--	--	--	--	--	43.48
Somalia	--	18.00	--	--	--	--	--	--	--	18.00
South Africa	--	--	--	--	--	--	--	--	--	--
Sudan	--	17.43	10.54	--	--	61.40	--	--	--	89.37
Swaziland	--	--	--	--	--	--	--	--	--	--
Tanzania	--	--	2.46	--	--	12.00	--	--	--	14.46
Togo	--	--	--	--	--	--	--	--	--	--

PLANNED U.S. FOOD AID FOR FY 2000
REGION BY COUNTRY SUMMARY
Metric Tons

REGION/COUNTRY	PUBLIC LAW 480				SECTION 416(b)		FOOD FOR PROGRESS			COUNTRY TOTALS
	Title I	Title II	Title II/WFP	Title III	Regular	WFP	Title I	Section 416(b)	CCC Purchases	
	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT
Uganda	--	19.97	14.92	--	--	--	--	--	--	34.89
West Africa Region	--	--	--	--	--	--	--	--	--	--
Zaire	--	--	--	--	--	--	--	--	--	--
Zambia	--	--	0.95	--	--	--	--	--	--	0.95
Zimbabwe	--	--	--	--	--	--	--	--	--	--
Totals ...	24.74	662.27	279.43	--	167.70	742.02	--	--	24.00	1,900.17
ASIA AND THE MIDDLE EAST										
Afghanistan	--	6.87	20.00	--	--	135.00	--	--	--	161.87
Bangladesh	--	67.07	29.12	--	--	--	--	--	--	96.19
Cambodia	--	--	13.92	--	--	--	--	--	--	13.92
China	--	--	--	--	--	--	--	--	--	--
East Timor	--	--	10.05	--	--	--	--	--	--	10.05
Gaza Strip	--	--	--	--	--	--	--	--	--	--
India	--	224.65	42.27	--	--	--	--	--	--	266.92
Indonesia	--	29.65	5.90	--	370.00	80.00	--	--	--	485.55
Korea, North	--	30.00	170.00	--	--	65.00	--	--	--	265.00
Lebanon	--	--	--	--	73.00	--	--	--	--	73.00
Mongolia	--	--	--	--	40.00	--	--	--	--	40.00
Morocco	92.46	--	--	--	130.00	--	--	--	--	222.46
Pakistan	--	--	0.61	--	--	--	--	--	--	0.61
Philippines	151.83	--	--	--	--	--	--	--	--	151.83
Sri Lanka	39.07	--	--	--	--	--	--	--	--	39.07
Vietnam	--	--	--	--	25.00	--	--	--	--	25.00
Yemen	--	--	6.15	--	177.00	--	--	--	--	183.15
Totals ...	283.35	358.24	298.02	--	815.00	280.00	--	--	--	2,034.61
EUROPE										
Albania	--	10.93	--	--	--	--	--	--	--	10.93
Bosnia-Herzegovina	--	--	--	--	56.00	--	5.30	--	16.00	77.30
Bulgaria	--	--	--	--	15.00	--	--	--	--	15.00
FYROM (Macedonia)	--	5.31	--	--	--	--	--	--	--	5.31
Montenegro	--	--	--	--	35.00	--	--	--	--	35.00
Serbia	--	61.26	19.89	--	--	--	--	--	--	81.15
S. Balkans/Kosovo	--	--	--	--	--	35.00	--	--	--	35.00
Totals ...	--	77.50	19.89	--	106.00	35.00	5.30	--	16.00	259.69

PLANNED U.S. FOOD AID FOR FY 2000
REGION BY COUNTRY SUMMARY
Metric Tons

REGION/COUNTRY	PUBLIC LAW 480				SECTION 416(b)		FOOD FOR PROGRESS			COUNTRY TOTALS
	Title I	Title II	Title II/WFP	Title III	Regular	WFP	Title I	Section 416(b)	CCC Purchases	
	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT
LATIN AMERICA AND CARIBBEAN										
Bolivia	--	44.92	--	--	--	--	--	--	--	44.92
Central American Regional	--	--	--	--	--	--	--	--	--	--
Colombia	--	--	10.00	--	--	--	--	--	--	10.00
Dominican Republic	--	--	0.31	--	--	--	--	--	--	0.31
Ecuador	--	--	--	--	85.00	--	30.00	--	3.50	118.50
El Salvador	--	--	--	--	--	--	--	--	--	--
Guatemala	--	75.94	0.28	--	--	--	--	--	10.00	86.22
Guyana	--	--	--	--	--	--	27.00	--	--	27.00
Haiti	--	79.33	10.09	--	12.28	--	--	--	--	101.70
Honduras	--	33.43	0.44	--	--	--	26.80	--	2.50	63.17
Jamaica	13.50	--	--	--	--	--	--	--	--	13.50
Nicaragua	--	19.74	3.22	--	--	--	--	--	--	22.96
Peru	33.00	84.62	--	--	--	--	--	--	--	117.62
Suriname	--	--	--	--	--	--	--	--	--	--
Totals ...	46.50	337.98	24.34	--	97.28	--	83.80	--	16.00	605.90
NEAR EAST										
Egypt	--	--	0.99	--	--	--	--	--	--	0.99
Jordan	--	--	--	--	380.00	2.00	--	--	--	382.00
Totals ...	--	--	0.99	--	380.00	2.00	--	--	--	382.99
NIS COUNTRIES										
Armenia	--	--	2.30	--	60.00	--	--	--	7.50	69.80
Azerbaijan	--	--	4.40	--	3.00	--	--	--	5.90	13.30
Caucasus Region	--	--	4.30	--	--	--	--	--	--	4.30
Georgia	--	--	2.00	--	35.00	--	--	--	8.08	45.08
Kyrgyzstan	--	--	--	--	60.00	--	--	--	--	60.00
Moldova	--	--	--	--	20.00	--	--	--	--	20.00
Russia	635.81	--	--	--	300.00	--	178.46	--	55.22	1,169.49
Tajikistan	--	--	2.30	--	35.09	--	--	--	12.75	50.14
Turkmenistan	--	--	--	--	7.00	--	--	--	--	7.00
Uzbekistan	38.20	--	--	--	--	--	--	--	--	38.20
Totals ...	674.00	--	15.30	--	520.09	--	178.46	--	89.45	1,477.30

PLANNED U.S. FOOD AID FOR FY 2000
REGION BY COUNTRY SUMMARY
Metric Tons

REGION/COUNTRY	PUBLIC LAW 480				SECTION 416(b)		FOOD FOR PROGRESS			COUNTRY TOTALS
	Title I	Title II	Title II/WFP	Title III	Regular	WFP	Title I	Section 416(b)	CCC Purchases	
	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT	000 MT
Total Planned ...	1,028.60	1,435.99	637.97	--	2,086.07	1,059.02	267.56	--	145.45	6,660.65
UNSPECIFIED										
Unspecified	--	44.21	--	--	--	--	--	--	--	44.21
Allocated Commodities	1,028.60	1,480.20	637.97	--	2,086.07	1,059.02	267.56	--	145.45	6,704.86
Reserve	--	--	--	--	--	--	--	--	--	--
Program Totals	1,028.60	1,480.20	637.97	--	2,086.07	1,059.02	267.56	--	145.45	6,704.86

Sources:

-- P.L. 480 Title I - Based on Program Summary as of October 12, 2000 it also includes carryover from the amended 1999 Russia program. The total does not reflect ocean freight financing of $29.7 million.

-- P.L. 480, Title II: Straight Title II - Based on Approved Program Summary Country/Sponsor/Commodity Profile as of October 2, 2000
Title II/WFP - Based on Approved Program Summary Country/Sponsor/Commodity Profile as of October 2, 2000.
For Title II and Title II:WFP the total does not reflect ocean freight costs of $442.7 million .

-- P.L. 480, Title III: Based on Approved Program Summary Country/Sponsor/Commodity Profile as of October 4, 1999. The total does not reflect freight cost.

-- Section 416 (b): Regular 416 - Based on 416(b) Status Report as of October 17, 2000
World Food Program - Based on 416(b) Status Report as of October 17, 2000 . The totals do not reflect freight costs.

-- Food for Progress: Title I - Based on P.L. 480, Title I Program Summary as of October 12, 2000. The total does not reflect ocean freight grants of $35.3 million
Section 416 (b) - Based on 416(b) Status Report as of October 17, 2000 .
CCC Purchases - Based on Excel Database as of October 17, 2000. The total does not reflect freight costs.

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TABLE IV - PLANNED U.S. FOOD AID FOR FY 2000
COMMODITY SUMMARY
Commodity Value and Metric Tons

COMMODITY	PUBLIC LAW 480								SECTION 416(b)				FOOD FOR PROGRESS						COMMODITY TOTALS	
	Title I		Title II		Title II/WFP		Title III		Regular		WFP		Title I		Section 416(b)		CCC Purchases			
	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $	000 MT	000 $
Barley	51.79	5,000.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51.79	5,000.00
Beans	-	-	26.44	12,978.49	19.08	9,236.28	-	-	-	-	-	-	4.00	2,661.55	-	-	0.22	81.70	49.74	24,958.02
Beef	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buckwheat	-	-	-	-	-	-	-	-	-	-	-	-	11.60	11,154.32	-	-	3.31	1,390.20	14.91	12,544.52
Bulgur	-	-	72.96	11,895.74	23.10	3,765.30	-	-	0.50	90.00	20.00	3,600.00	-	-	-	-	-	-	116.56	19,351.04
Butteroil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corn	500.13	48,346.85	119.26	12,137.41	158.93	16,952.56	-	-	0.28	27.50	168.10	16,810.00	-	-	-	-	8.20	820.00	954.90	95,094.32
Corn Gluten Meal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corn Soy Blend	-	-	202.26	52,587.34	95.90	24,933.70	-	-	-	-	15.40	3,850.00	-	-	-	-	1.00	250.00	314.56	81,620.34
Cornmeal	-	-	26.46	5,133.24	0.74	143.56	-	-	0.36	81.00	32.00	7,200.00	-	-	-	-	-	-	59.56	12,557.80
High Energy Biscuits	-	-	-	-	0.14	406.13	-	-	-	-	-	-	-	-	-	-	-	-	0.14	406.13
Lentils	-	-	20.48	7,659.52	6.64	2,483.36	-	-	-	-	-	-	7.08	3,003.51	-	-	3.31	1,075.75	37.51	14,222.14
Nonfortified Nonfat Milk	-	-	-	-	-	-	-	-	21.12	47,865.31	5.00	11,331.75	5.87	-	-	-	5.03	11,399.74	37.02	70,596.80
Peas	-	-	5.54	1,236.76	27.49	5,960.25	-	-	-	-	-	-	13.97	4,117.60	-	-	7.12	1,531.75	53.32	12,846.36
Rice	135.03	37,160.40	53.55	13,280.40	32.03	7,943.44	-	-	52.74	11,602.80	88.50	19,470.00	25.40	7,154.92	-	-	14.23	3,129.50	401.47	99,741.46
Rice Soy Blend	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planting Seeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry	20.64	10,699.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.64	10,699.93
Salmon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.00	22,601.90	20.00	22,601.90
Sorghum	-	-	30.78	3,550.08	4.30	513.63	-	-	-	-	-	-	-	-	-	-	-	-	35.12	4,063.71
Soy Protein Concentrate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soybean Meal	162.55	30,699.92	16.49	2,968.20	-	-	-	-	130.50	23,881.50	-	-	33.00	7,005.26	-	-	-	-	342.54	64,554.92
Soybeans	-	-	-	-	20.50	4,510.00	-	-	-	-	-	-	19.00	4,103.71	-	-	-	-	39.50	8,613.71
S. F. Bulgur	-	-	35.00	6,685.00	3.27	624.57	-	-	-	-	-	-	-	-	-	-	-	-	38.27	7,309.57
S. F. Cornmeal	-	-	13.93	2,911.37	6.52	1,362.68	-	-	-	-	-	-	-	-	-	-	-	-	20.45	4,274.05
S. F. Sorghum Grits	-	-	12.64	3,160.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.64	3,160.00
Tallow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.50	955.00	2.50	955.00
Vegetable Oil	7.53	3,738.23	177.24	97,296.48	39.40	28,565.00	-	-	19.98	11,748.60	19.42	12,623.00	30.35	21,652.60	-	-	21.49	14,797.25	315.41	190,421.16
Wheat	150.93	21,106.53	546.56	71,310.28	171.72	23,077.71	-	-	1,670.25	204,726.42	672.60	80,712.00	83.80	12,443.60	-	-	37.50	4,740.00	3,333.36	418,116.54
Wheat Flour	-	-	113.09	25,784.52	26.50	6,042.00	-	-	190.34	38,283.20	38.00	7,600.00	34.39	7,910.17	-	-	21.11	4,221.00	423.43	89,840.89
Wheat Seed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat Soy Blend	-	-	7.50	2,820.00	1.63	612.88	-	-	-	-	-	-	-	-	-	-	-	-	9.13	3,432.88
Whole Dry Milk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	1,428.98	0.45	1,428.98
Undesignated	-	-	-	-	-	-	-	-	-	-	-	-	-	*1,500.00*	-	-	-	-		*1,500.00*
Total Planned	1,078.60	184,711.85	2,430.50	332,394.83	637.07	137,132.05	-	-	2,086.07	348,721.67	1,059.02	163,176.75	267.56	82,501.22	-	-	145.45	89,482.88	9,304.30	1,319,121.23
Reserve	-	(0.86)	0.00	(0.86)	-	-	-	-	-	230,425.24	-	-	-	-	-	-	0.00	-	0.00	230,425.24
Program Totals	1,078.60	184,751.85	2,430.50	332,394.83	637.07	137,132.05	-	-	2,086.07	348,721.67	1,059.02	163,176.75	267.56	82,501.22	-	-	145.45	89,482.88	9,304.30	1,549,546.47

Sources:
-- P.L. 480 Title I - Based on Program Summary as of October 12, 2000 it also includes carryover from the amended 1999 Resale program. The total does not reflect ocean freight financing of $29.3 million.
-- P.L. 480, Title II: Straight Title II - Based on Approved Program Summary Country/Sponsor/Commodity Profile as of October 2, 2000
Title II/WFP - Based on Approved Program Summary Country/Sponsor/Commodity Profile as of October 2, 2000.
For Title II and Title II/WFP the total does not reflect ocean freight costs of $4/3.7 million .
-- P.L. 480, Title III: Based on Approved Programs Summary Country/Sponsor/Commodity Profile as of October 2, 2000. The total does not reflect freight cost.
-- Section 416 (b): Regular 416 - Based on 416(b) Status Report as of October 17, 2000
World Food Program - Based on 416(b) Status Report as of October 17, 2000 . The totals do not reflect freight costs.
-- Food for Progress: Title I - Based on P.L. 480, Title I Program Summary as of October 12, 2000. The total does not reflect ocean freight costs of $35.3 million
Section 416 (b) - Based on 416(b) Status Report as of October 17, 2000 .
CCC Purchases - Based on Food Donations as of October 17, 2000. The total does not reflect freight costs.

PREPARED STATEMENT OF THE ADVANCED MEDICAL TECHNOLOGY ASSOCIATION (ADVAMED)

AdvaMed, the Advanced Medical Technology Association (AdvaMed) (formerly the Health Industry Manufacturers Association) and its members appreciate this opportunity to provide testimony on funding for FDA in fiscal year 2002. AdvaMed represents more than 800 innovators and manufacturers of medical devices, diagnostic products and medical information systems. Our members produce nearly 90 percent of the $68 billion health care technology products consumed annually in the United States and nearly 50 percent of $159 billion purchased around the world annually.

SUMMARY

AdvaMed believes that four key points must be considered when setting FDA funding levels for fiscal year 2002.

—The coming revolution in medical technology poses significant premarket review challenges for FDA

—Device premarket review times have improved, but delays remain in FDA approval of breakthrough technologies

—FDA should be given the full resources it needs to meet the coming revolution in medical technology. Added funding for device premarket review should be coupled with further policy changes to prepare FDA for the future.

—AdvaMed looks forward to working closely with FDA and Congress to determine the extent of the agency's resource needs and ensure that it is ready to meet the premarket review challenges that lie ahead.

SIGNIFICANT PREMARKET REVIEW CHALLENGES ON THE HORIZON FOR THE AGENCY

Last year, AdvaMed testified as to the critical importance of preparing FDA for the coming revolution in medical technology. Patients will be denied access to important new tests and treatments if the agency does not have the resources and procedures in place to review in a timely manner the breakthroughs that result from this revolution.

The agency has made significant gains in reviewing incrementally improved 510(k) medical technologies within statutory review times as a result of its actions to expand the 3rd Party review program—as directed by this Subcommittee. Nevertheless, FDA Acting Principal Deputy Commissioner Bernard Schwetz recently testified before your Subcommittee on the challenges the agency faces, noting "the United States is leading the world into an era of extraordinary scientific achievements that can yield unprecedented gains for human health and nourishment."

Some of the breakthrough technologies approved by FDA over the past year underscore the dramatic potential of emerging science not only to save and improve lives but also to lower health care costs. They also illustrate why FDA faces a considerable challenge in maintaining timely reviews for the increasing number of major breakthroughs it will face. The vast majority of those breakthroughs will be premarket applications (PMAs).

FDA for example, recently approved digital mammography—after at least 5 years—for breast cancer. This is in addition to the ten year's the product spent in development. This breakthrough in early detection of breast cancer will help save many women's lives in the coming years. The effectiveness and efficiency of this technology will only improve in the coming years as it is coupled with additional breakthroughs like and computer-aided diagnosis and tomosynthesis. FDA's review of digital mammography underscores the challenges the agency faces in reviewing breakthrough technologies in a timely manner. Unfortunately, such premarket review delays are not uncommon for breakthrough medical technologies.

Similarly, combination products—products that are both a device and a drug or biologic have faced significant premarket review delays. Such combination products are reviewed by at least two FDA centers. Unfortunately, combination device drug/biologic products reviewed by the Drug and Biologic centers have faced significant review delays. Nevertheless, a significant number of the breakthrough products in the current R&D pipeline will be combination products never before seen by the Agency.

Medical technology companies also are becoming increasingly concerned about increases in the overall development time for new technology. Delays in any area of the technology development process—design, pre-clinical, clinical testing, and FDA review—prevent patients from gaining access to new technologies and discourages further innovation.

For these reasons, the premarket review challenges posed by innovative medical technologies will only increase in the coming years as FDA faces an ever-increasing number of breakthroughs products.

This fact was highlighted in a report by the Lewin Group on the "Outlook for Medical Technology Innovation" that was released last year. A key finding from the report was that medical device and diagnostic manufacturers have doubled their R&D over the past decade to bring these breakthroughs to fruition. Additionally, a report scheduled for release later this year by the Lewin Group is expected to quantify the significant increases in R&D spending that medical technology companies have made over the last five years.

In making these heavy R&D investments, AdvaMed members are acutely aware of the challenges FDA faces in making these innovations available to patients in a timely manner.

AdvaMed believes that FDA should be given the resources and expertise needed to streamline the entire medical technology development and review process in order to begin the process of preparing FDA for a new age of rapid biomedical and pharmaceutical innovation. This new age is rapidly approaching, and the time to start preparing is now.

FDA NEEDS ADDITIONAL PREMARKET RESOURCES TO PREPARE FOR THE NEW AGE IN MEDICAL TECHNOLOGY INNOVATION

This new era of biomedical breakthroughs is arriving at a time when the agency lacks the resources to meet even its current premarket review duties. In 1998, FDA Senior Associate Commissioner Linda Suydam estimated the agency was $165 million short of what it actually needs to do its job. In the intervening period, we have learned that medical technology manufacturers have doubled their R&D—the Lewin Report found companies are investing $9 billion a year or approximately 12.9 percent of revenue. Additionally, while the agency has received important appropriations increases including $7 million in fiscal year 2000 and $7.7 million in fiscal year 2001 for device premarket review, premarket review times for premarket applications (PMA) have nevertheless remained flat for the last 3 years. AdvaMed believes FDA's device review program will continue to warrant significant increases as the agency prepares for the coming explosion in medical technology innovation.

AdvaMed believes FDA should have the resources it needs to meet its statutory time frames, both now and in the future. This means completing final actions for premarket approval applications for breakthrough products within 180 days and 510(k)s for incremental advances within 90 days. The fiscal year 2000 Annual Report released by the Center for Devices and Radiological Health's Office of Device Evaluation reported that PMA reviews continue to be double the statutory review times. It also shows that despite budget increases, little improvement has been made in PMA review times.

DIALOGUE NEEDED TO UNDERSTAND RESOURCES NEEDED

AdvaMed believes strongly that it is essential to understand the total resources needed in order for the agency to meet its statutory device review timeframes and has worked for many years to try and determine what is needed. This requires a dialogue with the agency. Toward this end, we applaud the Committee's effort last year to include report language requesting the agency to provide this information to the Committee with respect to the fiscal year 2002 budget. To our knowledge, the agency has not yet provided this information to the Committee.

AdvaMed strongly recommends a dialogue on this issue between appropriators and the FDA so that appropriators may begin to understand and work toward appropriate resources for the agency. Such a dialogue must also include the resources needed at the Drug and Biologics Centers to review combination device drug/biologic products. AdvaMed would be happy to participate in any such discussions if the Committee believes this would facilitate such a dialogue.

Similarly, we understand the Agency may not have used its contracting out authority as it was encouraged to by this Committee last year due to lack of resources. As the pace of medical technology innovation quickens, it will become increasingly important for FDA to look to outside expertise to make sure the agency does not become an ever-tighter regulatory bottleneck.

AdvaMed strongly believes FDA must remain on the cutting edge of science and that one useful way to achieve this goal is for FDA to make greater use of the expertise of the researchers who are advancing this science and applying it to medical technology breakthroughs. However, unless it is known how much the Agency believes it needs to contract out for premarket activities, the Committee will not be able to plan for the needed resources.

REGULATORY CHANGES ARE NEEDED TO PREPARE FDA FOR THE NEW AGE OF MEDICAL TECHNOLOGY INNOVATION

Increased FDA funding for premarket reviews is only part of the answer to timely patient access to medical innovations. In order to meet the coming biomedical revolution, the agency must be as innovative in its regulation of new technologies as researchers are in developing them. FDA has shown a commitment to finding new approaches to getting its job done, and this commitment should be encouraged and expanded on.

FDA has demonstrated this commitment through successfully implementing some key provisions of the FDA Modernization Act. Recently the agency fully implemented and expanded the types of products eligible for the third-party review program. Additionally, the agency also worked cooperatively with stakeholders on FDAMA's least burdensome concept.

CONCERN ABOUT IMPORT USER FEE PROPOSAL

While we do not yet fully understand the Administration's proposed import user fee proposal, we are concerned about its potential impact on medical technology manufacturers. As you may know, in this global economy, medical technology manufacturers rely on component parts and bulk supplies or biomaterials from around the world. The biomaterials shortage of the early 90's forced many technology manufacturers to have to find biomaterials from around the globe in order to manufacture implantable technologies. Additionally, many technology manufacturers import premanufactured parts into the U.S. from their internationally-located facilities for final assembly in the U.S. We also believe the proposal would require significant authorizing language.

CONCLUSION

AdvaMed urges this Subcommittee to help prepare the FDA for the coming era of biomedical innovation. To ready FDA for this era and ensure that patients enjoy timely access to the coming dramatic breakthroughs in medicine, a dialogue must be opened on the resources needed to adequately fund FDA's device and drug/biologics premarket review programs and ensure that statutory review times are met. AdvaMed stands ready to assist in such a dialogue if requested.

AdvaMed thanks the committee for this opportunity to present our views and we look forward to working with you to help prepare FDA for the coming revolution in biomedical innovation.

PREPARED STATEMENT OF THE ALACHUA COUNTY BOARD OF COUNTY COMMISSIONERS

Mr. Chairman, thank you for allowing the Alachua County Board of County Commissioners to submit this written testimony before your Subcommittee regarding two significant projects. They are the Partners for a Productive Community Enhancement Initiative, and the Critical Services to Underserved Areas Initiative.

PARTNERS FOR A PRODUCTIVE COMMUNITY ENHANCEMENT INITIATIVE ($2.3 MILLION IN FUNDING REQUESTED)

In response to a spiraling crime rate in southwest Alachua County, the Alachua County Sheriff's Office requested help from the Board of County Commissioners in 1993. Specifically, the Sheriff reported that 57 percent of its 911 calls came from an area that had only 3.2 percent of the County's population.

The County Commission responded by providing $38,000 in funding for a Program Manager to staff the Partners for a Productive Community (PPC) Program in fiscal year 1994. The PPC was launched as a strategic planning effort with three goals: the establishment of neighborhood-based services, the development of public/private partnerships and a focus on crime prevention. This Program has enjoyed great success due to the coordinated efforts of the Sheriff's Office, the Courts and the Alachua County Department of Community Support Services. Furthermore, since the inception of this Program, the County has budgeted over $1.6 million to support the Program through the Community Support Services Department and Sheriff's Office. Additionally, over $2.4 million has been leverage from other county departments, local social service providers and the Sheriff's Office through a local law enforcement grant.

The goal of the Sheriff's Office was to reduce the number of calls from the area, and to develop a relationship of trust with the area's residents. The goal of the Courts was to help with the swift prosecution of cases, and to increase personnel

in key areas. Finally, the goal of the County's Department of Community Support Services was to develop and implement a neighborhood needs assessment, and to determine the social service needs in accordance with the results of the assessment. The Community Support Services Department was also responsible for developing public/private community partnerships, and community based organizations comprised of tenants, property owners and managers. Thus, this project represents a multi-agency strategy to stabilize, revitalize and sustain five specific neighborhoods of Alachua County.

In addition to improving the area's basic infrastructure, Federal funding is also being requested to provide community recreational programs for the area's youth. These activities will provide positive alternatives to crime, and allow youth to participate first hand in community improvement programs. In doing so, these programs will build and encourage positive self-esteem, leadership skills and academic achievement. To complement these programs, additional improvements will be made in the community Safe Havens. Finally, the requested funding will also allow the PPC to expand this successful demonstration program into other at risk Alachua County communities such as Archer, Florida. Specifically, the PPC will develop a partnership strategy to address the unmet needs of health care, education, training, employment, youth recreation and transportation for the residents of Archer.

This request for Federal funding is justified by the tremendous improvements and accomplishments that have been made in these neighborhoods since 1995. These achievements include: free community day care for 75 children, 30 community day care slots, 24 in-home day care slots, the creation of 30 new jobs by the Early Progress Center, the reduction in 911 calls from 57 percent to 14 percent of total calls in the area, and substantial increases in the property values for four of the five neighborhoods.

Furthermore, the implementation of seasonal recreation programs in the targeted communities by the Y.M.C.A. has been instrumental in providing positive, character building activities for children, teenagers and adults. Day camps are provided during the summer months, and back-yard sports are provided at the end of the school day during the school year. In addition, two 4–H Clubs serving 60 neighborhood children were established along with after school and community teen programs. Adult literacy and GED classes were made available at a nearby school campus. Finally, other programs have been established for the purpose of creating a sustainable neighborhood. These programs include quarterly informational forums concerning small business development, educational opportunities, self-help seminars, budget management and landlord/tenant issues.

With respect to community-wide improvement programs, a total of nine neighborhood cleanups were completed this year. With the active involvement of the residents of the neighborhoods, the Alachua County Office of Codes Enforcement has been able to reduce from twenty to two the number of abandoned and vandalized buildings. Furthermore, a new Waste Collection Ordinance which was supported by the PPC permits the efficient and timely citation of violators.

The sustaining factor within this Program is the formally organized Partners for a Productive Community Council. The Council is the guiding force that deals with issues and determines unmet needs. For example, a block captain organization was started this year with the assistance of the PPC Council, and the Alachua County Sheriff's Office. This group monitors and manages crime prevention programs block by block. In recognition of the numerous accomplishments described above, the PPC received the National Association of Counties' Achievement Award in 1996 for distinguished and innovative contributions to improving county government. Additionally, the League of Women Voters presented the County with a similar award for outstanding community service.

Furthermore, in December 1999 Alachua County received Official Recognition from the Executive Office of Weed and Seed for two of the neighborhoods being served by the Partners for a Productive Community Program. Pursuant to this recognition, these communities have been awarded a $175,000 Weed and Seed Grant for prevention and intervention strategies focusing on Cedar Ridge and Linton Oaks neighborhoods. This grant will further strengthen the long-term efforts to improve the quality of life in these neighborhoods.

As noted above, the Federal funding requested will also be used to expand the successful Partners Initiative into the rural community of Archer, which is located in the southwestern portion of Alachua County. Archer and the rural areas surrounding it have a population of 6,348, of which 16 percent fall below the poverty level. While the City of Archer has one elementary school, emergency rescue, fire and police services are contracted from Gainesville/Alachua County. There are also two public housing communities, and a small obsolete community center which is used as a congregate meal site for senior citizens. Consequently, many of Archer's

residents travel to Gainesville for employment, social services, recreational activities, adult and continuing education and health care.

Recently, the University of Florida, School of Nursing received $200,000 from the Florida Legislature to provide primary health care through a clinic based in Archer. Presently, this clinic is on the State Department of Health's list to be eliminated due to the limited area that it serves. Should this occur, there will be a need for additional funds to meet the health care needs in this area. Thus, a portion of the Federal funding in this request could be channeled through the Alachua County Health Department in our continuing effort to develop partnerships, maximize resources and expand services to the citizens of Alachua County through our rural service initiative.

Employment opportunities, recreation for teens and outreach social services continue to be a challenge for the community of Archer. According to the Alachua County Sheriff's Office, Archer's crime rate is disproportionately high for a community its size. In 2000, the Alachua County Sheriff's Office received 2,657 calls for service. Of the dispatched calls, 30 were assaults and batteries, and 5 were for sexual battery. The largest number of dispatched calls (869) concerned burglary and theft.

In conclusion, Alachua County is requesting $2.3 million in Federal funding to continue its highly successful and award winning neighborhood revitalization programs; and to expand these successful model programs to other neighborhoods, including the City of Archer, Florida.

CRITICAL SERVICES TO UNDERSERVED AREAS ($1.81 MILLION IN FUNDING REQUESTED)

Without a safe and reliable source of public utilities, the residents who live in the southeastern portion of the City of Gainesville and Alachua County must rely upon the use of obsolete private water systems, septic tanks and propane gas for their utility services. In addition to the health and safety concerns, this lack of a public utility infrastructure serves as a deterrent to the area's economic revitalization.

While several subdivisions in the target area are in immediate need of a public utility infrastructure, it is the County's intent to approach this model program by focusing on the Kincaid Road subdivision as Phase I of the Initiative. This subdivision currently has over 150 homes on septic tanks, with many of them also using propane gas for heating. Historically, there are numerous health risks associated with malfunctioning septic tanks, including the possible contamination of ground water which could lead to the development of diseases within the area.

Gainesville Regional Utilities (GRU) indicates that the infrastructure needed to provide wastewater service to this area includes: the wastewater collection system lift stations, grinder pumps and on-site plumbing to connect to a new gravity sewer system. GRU estimates that the construction and extension of a central wastewater system to the Kincaid Road subdivision will cost approximately $1,585,000, while the extension of the natural gas lines is estimated at about $225,000. Thus, the total cost of Phase I of this model program is $1.81 million. Finally, it's important to note that GRU is currently planning wastewater facilities to serve the Kincaid Road subdivision, and may perform additional engineering work as in-kind services. The additional engineering work is estimated to cost approximately $121,000.

While Alachua County is requesting assistance from the Federal government in funding this portion of the model program for the area's revitalization, the County has already begun numerous other programs and projects that have had an positive, significant impact on the area's redevelopment. For example, in July of 1996, the County began a series of neighborhood meetings in Greentree Village, which is a subdivision of about 60 households in the target area. Residents were encouraged to express their concerns about the area's problems and establish priorities. As a result of these meetings, the County assisted Greentree Village in the establishment of a crime watch program and the creation of a backyard recreation program through the Y.M.C.A.

Several new public buildings and facilities have also been located within the target area to encourage its redevelopment. During 1998/99, Alachua County expended about $5.5 million to purchase and renovate the Eastgate Shopping Center for the Alachua County Sheriff's Office. This new facility is 56,200 square feet in area, and it serves as the base of operations for the County's 239 sworn deputies, and 260 non-sworn administrative and support personnel. Completing this law enforcement complex is the new Alachua County Communications and Emergency Operations Center which recently opened adjacent to the new Sheriff's Office. This facility cost about $5.3 million and operates as a joint center for both Alachua County and the City of Gainesville.

Finally, with a contribution of approximately $430,000 from Alachua County, the City of Gainesville has completed a new Technology Enterprise Center (TEC) within

the target area. This $3.0 million business incubator consists of a new, two-story 30,000 square foot facility located in the City of Gainesville Enterprise Zone. Over 60 percent of the construction funds for the TEC were provided by a grant from the U.S. Economic Development Administration. The purpose of business incubators is to promote the growth and development of new enterprises by providing flexible space at affordable rates, a variety of support services, access to management, technical and financial assistance, and opportunities to interact with other entrepreneurs and business experts. Even though this facility has just recently opened, about 13,000 square feet of the TEC has already been leased to a leading technology accelerator company specializing in speeding pioneering technology entrepreneurs to the market. It is expected that when fully operating, the TEC will foster the creation of higher wage jobs, the expansion of the tax base and the augmentation of new business development within the target area.

In conclusion, Alachua County is undertaking the redevelopment of an existing urbanized area, which includes the modernization of its utility infrastructure. These improvements will build upon numerous previous programs and projects that have already had a positive impact upon the area. Phase I of this model program includes the extension of a central wastewater system to the Kincaid Road subdivision, as well as the extension of natural gas lines. The support of this Phase of the project through Federal funding will serve as an impetus for the continued revitalization of these residential areas.

CONCLUDING COMMENTS FOR WRITTEN TESTIMONY

The two initiatives described above represent well-conceived programs that address the social, physical and economic needs of the citizens of Alachua County. Furthermore, they demonstrate the County's continuing commitment to programs that emphasize a balance between environmental protection, economic development and social equity for all of the residents of the County. Therefore, we hope that the Subcommittee will find these two critically important projects worthy of your support. Thank you for your consideration.

PREPARED STATEMENT OF THE AMERICAN DIETETIC ASSOCIATION

Mr. Chairman, the American Dietetic Association and its 70,000 food and nutrition professionals respectfully urge your subcommittee to support adequate funding for USDA's Continuing Survey of Food Intakes by Individuals (CSFII). A minimum of $8 million is needed annually for this purpose. Congress, USDA, other government entities and the public all rely on the information provided by CSFII for developing sound agriculture and food policy. We kindly request that this letter be entered into the official record of written statements and testimony.

CSFII data are used to identify and target Americans in need of food assistance, track consumption of agricultural commodities and assess risks in the food supply. By providing information on individual and household consumption, CSFII data identify trends in food patterns and connections between diet and health.

Despite the importance of this survey, the USDA discontinued the CSFII in Fiscal Year 2001 due to lack of adequate funding. In the absence of CSFII, USDA plans to rely on dietary data collected by the U.S. Department of Health and Human Services (DHHS). However, the information collected by DHHS is insufficient for formulating agriculture, food and nutrition policy. Congress, USDA, and the public will be severely disadvantaged by the loss of the USDA data they have relied upon over the years.

Together, USDA's CSFII and the DHHS survey, known as the National Health and Nutrition Examination Survey (NHANES), comprise the core of America's national nutrition monitoring system. Though USDA and DHHS have been working diligently for several years to coordinate data collection and to integrate survey methodologies, the plan did not include a merger of the two surveys or the discontinuation of one of the system's two core components.

In January 2001, USDA submitted a report to this Committee outlining its plan to merge its survey activities with those of the DHHS. This report did not address many of the issues and concerns of Congress, as identified in Conference Report No. 106–948 accompanying the Agriculture, Rural Development, Food and Drug Administration, and Related Agency Appropriations Act for fiscal year 2001. In fact, the DHHS survey is inadequate to support USDA's agriculture and food policy decision-making. Without its own survey, USDA can no longer be assured it will receive the types of data needed in a timely fashion to support the multi-faceted functions of the Department.

The USDA should continue data collection as it works with DHHS to lay out a clear plan to use complementary research, collection, and analysis for both CSFII and NHANES, without loosing the vital and rich data collected by each survey. However, it is critical that USDA has an in-house mechanism to collect the data it needs on a timely basis. For this reason, the American Dietetic Association respectfully requests that Congress provides a minimum of $8 million annually to the Agricultural Research Service specifically for the CSFII survey.

Thank you for your consideration of this request.

INTEGRATION OF THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY AND THE CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

INTRODUCTION

Conference Report No. 106–948 accompanying the Agriculture, Rural Development, Food and Drug Administration, and Related Agency Appropriations Act for Fiscal Year 2001, contained the following directive: "The conferees direct the USDA, in consultation with the Department of Health and Human Services, to prepare and submit a report to the House and Senate Committees on Appropriations, by December 31, 2000 that describes the process for integrating the National Health and Nutrition Examination Survey (NHANES) and the Continuing Survey of Food Intakes by Individuals (CSFII). The report should: (1) include a timeline and steps to accomplish the goals set forth in the National Nutrition Monitoring and Related Research Act of 1990; (2) be prepared in consultation with representatives of user groups (i.e., anti-hunger groups, consumer advocates, commodity organizations, food producers, nutrition professionals, and public and voluntary health organizations); (3) address the strengths and potential weaknesses of merging the two surveys and identify how problems will be addressed and by whom; (4) identify funding needs and sources; and (5) include recommendations for inclusion in reauthorization of the National Nutrition Monitoring and Related Research Act."

BACKGROUND

The Department of Agriculture, through its Agricultural Research Service (ARS), conducts the Continuing Survey of Food Intakes by Individuals (CSFII) and the Department of Health and Human Services, through its National Center for Health Statistics (NCHS) (part of the Centers for Disease Control and Prevention), conducts the National Health and Nutrition Examination Survey (NHANES). The CSFII which has been conducted on a periodic basis is designed to assess food consumption and related behavior in the U.S-population using personal interviews. The most recent CSFII survey was conducted in 1998. NHANES is designed to assess the health and nutritional status of the U.S. population using personal interviews and a direct physical examination. NHANES, previously periodic, has been conducted on a continuous basis since 1999.

DISCUSSION

The backdrop for discussions on integrating the CSFII and NHANES is the National Nutrition Monitoring and Related Research Act (NNMRRA) of 1990 which set goals and mechanisms to bring about greater coordination of nutrition monitoring activities across agencies. More recently, leadership of HHS and USDA have identified a more comprehensive integration of these two surveys as a major priority. USDA/HHS staff have been engaged in intensive discussions of alternative models and approaches for the last three years and have arrived at a basic approach. This process of integration has involved input by users of the data from both surveys. In addition, both agencies have regularly met with and solicited the feedback of stakeholders from inside and outside government on the advantages and disadvantages of integrating the surveys.

Extensive planning efforts between both agencies assures that the quality of the data collected in the future will be improved. Proven and now fully automated methods of data collection will be used, the needs of customers and stakeholders will continue to be met, and data will be released in a timely manner. However, some issues still remain to be addressed.

Objectives for Integrating the Survey

The goals of USDA and HHS in conducting and integrating nutrition surveys is fully consistent with those stated in the Conference Report and the general thrust of the NNMRRA. USDA's and HHS' particular focus has been to:

—Continue to meet priority agency and outside user needs for nutrition and dietary data.
—Reduce the complexity of using multiple surveys conducted with different methods.
—Improve analytic comparability between previously parallel efforts of the two Departments.
—Accelerate efforts to implement initiatives anticipated by the I0-year plan and the nutrition monitoring act.
—Achieve cost efficiencies in the face of uncertain and constrained resources.

Discussions between USDA and HHS on alternative strategies for integrating nutrition monitoring efforts have addressed the following questions/issues. What is the potential impact on users of diet and nutrition data? How can existing data resources be maintained and improved? What is the projected availability of funding and what are the alternative methodological approaches (e.g., sample sizes, telephone and in-person interview modes) to achieve the survey goals? What is the advisability and feasibility of using either multiple data collection mechanisms or a single, consolidated mechanism?

USDA/HHS Approach to Integrating the NHANES and the CSFII

Discussions between USDA and HHS have led to an approach to integrating the two surveys into a single mechanism. While many details remain to be addressed the elements of this approach include:

—Collection of data from a nationally representative sample of 5,000 persons each year as part of the continuous NHANES data collection mechanism. The contents of this diet and nutrition component of the survey will include 24-hour recall, a dietary supplement interview, body measures, and nutritional biochemistries from blood and urine specimens.
—Use of a new USDA computerized dietary recall data collection system.
—Processing of dietary recall data through the USDA SurveyNet program.
—Augmentation of dietary supplement interview data with information collected from supplement manufacturers.
—Addition of a second day 24-hour recall to NHANES in order to obtain more representative data on an individual's dietary intake.
—Release of data from this integrated survey database as a timely joint USDA/HHS effort.
—Conduct of an ongoing research program on methods to improve collection and analysis of dietary data.

Advantages/Disadvantages of Integrating the Surveys

The major advantages of integrating the two surveys include:

(1) A single survey will be less costly than maintaining two separate field operations.

(2) Dietary recall data will be available from two days on each individual rather than a single day.

(3) Using the combined assets of USDA and HHS the data will be released in a more timely manner.

(4) Through the extensive concomitant research of the NHANES program more comprehensive diet and nutrition data will be linked directly to health status data.

(5) Data collection will proceed on a continuous basis through the ongoing NHANES mechanism rather than periodically.

The potential disadvantages of integrating the two surveys include:

(1) It was rare for the NHANES and CSFII to be in the field simultaneously. For those years in which both surveys would have been conducted, the overall sample size would have been 10,000 (i.e., 5,000 in each survey). With a single integrated effort, the maximum sample in any year will be 5,000 under the proposed approach.

(2) NHANES operational constraints raise the possibility that the proposed survey approach will not adequately address seasonal differences in food consumption.

(3) A plan for obtaining information previously collected through the Diet and Health Knowledge Survey (DHKS), a telephone follow-up to a subsample of the CSFII, is not yet a component of the integrated approach.

(4) An integrated approach involves tradeoffs and compromises on design and content and it may not be possible to include as much detail on population sub-groups and program participation of special interest to the USDA community as was possible in separate survey undertakings. Similarly, tradeoffs may be necessary between the interests of users of health status data and users of diet and nutrition data in the context of a single mechanisms meeting multiple objectives.

(5) An advantage of two indepedent surveys is the assurance that if something happened to the one survey the remaining survey would independently continue.

With the integrated survey, its success will depend on the ability of both agencies to have adequate funding and resources to carry out the integrated survey.

USDA and HHS have concluded that the advantages significantly outweigh the potential disadvantages and are committed to working to minimize the impact of any of the potential negative impacts. The agencies feel that stakeholders and users of the data will be convinced that the integration plan has considerable merit and can help advance the goals of nutrition monitoring.

Timeline

While survey integration discussions between ARS and NCHS have been taking place a new method of fully computerized dietary data collection based on a common set of dietary intake questions, developed in consultation with users of the data, has been developed. Further, NCHS has modified NHANIES so that a sample of the U.S. population is collected each year to enable annual updating of estimates. Field pilot testing of the dietary intake system has taken place and an additional operational test is being planned. The full implementation of the new system is scheduled to take place in 2002. It will be used for an in-person interview with participants in the ongoing NHANES and a follow-up interview by telephone for a second, nonconsecutive day of data collection on all 5,000 respondents yearly. This will be a nationwide sample collected over a 12 month period.

Outstanding Issue

There are several significant remaining issues which need to be addressed prior to implementation. First, ARS and NCHS are examining the funding implications of an integrated approach, both in terms of total funding required and the extent to which USDA and HHS would support the various elements of an integrated plan. At the same time, there are other tradeoffs and constraints on the NHANES mechanism, both in terms of funding, burden on individual respondents, and tradeoffs with other potential subjects that might be addressed.

Secondly, details of the roles of USDA and HHS components need to be refined, including the logistics of operations, the development of ongoing mechanisms for user and stakeholder input from both the USDA and HHS communities, and the relationship of integration efforts to other NHANES partners and operations.

USDA and HHS have agreed to take the following steps to refine their integrated approach and move toward implementation:

—Submit this report to House and Senate Appropriations Committees and actively solicit comment on the report from users and stakeholders, including those listed in the Appendix.

—Resolve the outstanding issues addressed above, including funding and operational issues, and make necessary revisions to the approach based on user and stakeholder feedback.

—Conduct an operational test in 2001 of the newly developed USDA computerized dietary recall data collection system to assure compatibility with the NHANES automated systems.

—Develop more detailed operational implementation plans and protocols and obtain necessary clearances in 2001 from Institutional Review Boards for the protection of human subjects in research, and the Office of Management and Budget under the Paperwork Reduction Act.

—Implement an integrated approach reflecting comments from users and stakeholders in 2002.

Funding, Needs and Sources

Funding for the joint integrated survey will be provided by both ARS and NCHS. ARS funds will primarily be used for dietary collection and continued improvement of the dietary intake system. This will include processing of the dietary data. Funds for the selection of the sample to be interviewed, contacting and screening the respondents, the facilities to carry out the interviews, and other costs associated with the NHANES will be provided by NCHS and its collaborators.

It is highly desirable to consider expanding the sample size of participants for the dietary intakes to 10,000 or more as expressed by many stakeholders. This can be done as a freestanding but linked intake outside of the current NHANES data collection model but would require additional funding. Funding for the DHKS is essential and will require additional funds. If the full value of any dietary assessment is to be realized, it will require continuous research on dietary intake methodology so that methods can be continuously refined and developed.

SUMMARY

The USDA and HHS believe a combined, continuous, ongoing effort resulting in an integrated survey, which brings together the complementary expertise of ARS and NCHS, is preferable to two surveys. It is important that this monitoring effort be viewed as a critical research tool. It is also important that this national monitoring program be buttressed by research sufficient to enable the program to keep pace with changing foods, diet and eating behaviors, and with evolving survey mechanisms. With guidance from the several communities who need diet and nutrition information, USDA/HHIS is confident that the Nation's needs can be met.

USER GROUPS CONSULTED TO DISCUSS THE INTEGRATION OF THE USDA AND HHS DIET AND NUTRITION SURVEYS

For the development of this report, several mechanisms were used to solicit input from user groups on the issues associated with the integration of the USDA and HHS surveys. Organizations that participated in recent meetings or provided written input include:

—American Heart Association
—Nancy Chapman and Associates
—Library of Congress, Congressional Research Service
—National Food Processors Association
—Institute of Food Technologists
—Society for Nutrition Education
—American Society for Nutritional Sciences
—American Dietetic Association

The agencies also received multiple comments from individuals following these meetings.

USDA and HHS staff have had a continuing dialogue with stakeholders as the approach to integrating these surveys has been developed. These include:

—The ARS "What We Eat in America" conferences
—The ARS "CSFII Survey Users Group" meetings
—The NCHS "Data Users Conferences"
—ARS/NCHS "Workshop on the Integrated CSFII–NHANES National Food and Nutrition Survey"
—ARS expert working group on the "New USDA Automated Dietary Recall Method"

PREPARED STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION

The American Farm Bureau Federation has identified four USDA program areas for which priority fiscal year 2002 funding is essential. They are:

—programs key to the proper implementation of the Food Quality Protection Act (FQPA);
—programs to expand foreign markets for agriculture;
—programs to ensure the development and use of biotechnology products; and
—programs to guarantee proper implementation of CAFO and TMDL regulations.

These priorities are highlighted in the first portion of this statement. The second portion contains a list of additional programs supported by Farm Bureau.

PROGRAMS KEY TO THE PROPER IMPLEMENTATION OF THE FOOD QUALITY PROTECTION ACT (FQPA)

Passed in 1996, the Food Quality Protection Act (FQPA) is our nation's new food safety law, establishing revised health standards and a new risk assessment process for measuring the safety of crop protection products. Farm Bureau supports increased funding for USDA's Food Quality Protection Act implementation activities. Proper implementation of this law based on sound science is critical to ensure the availability of vital crop protection products.

The following offices and programs are critical to proper implementation of FQPA and must be funded as increased levels:

Agriculture Research Service (ARS).—Integrated Pest Management (IPM) research, minor use tolerance research (IR–4), and research on alternatives to methyl bromide. The Office of Pest Management Policy, should also be funded at increased levels with funding being designated under the Secretary of Agriculture's office, not ARS.

Cooperative State Research and Extension Service (CSREES).—IPM research grant, IPM application work, pest management alternatives program, expert IPM decision support system, minor crop pest management project (IR–4), crops at risk

from FQPA implementation, FQPA risk avoidance and mitigation program for major food crop systems, methyl bromide transition program, regional crop information and policy centers, Pesticide Impact Assessment Program (PIAP), and the pesticide applicator training program.

Economic Research Service (ERS).—IPM research, pesticide use analysis program, and the National Agriculture Pesticide Impact Assessment Program (NAPIAP). Additional funding for FQPA implementation activities is needed in the following programs: National Agriculture Statistics Service (NASS) pesticide use surveys, Food Safety Inspection Service (FSIS) increased residue sampling and analysis, Agriculture Marketing Service (AMS) and the Pesticide Data Program (PDP).

PROGRAMS TO EXPAND FOREIGN MARKETS FOR U.S. AGRICULTURE

Creating new overseas markets and expanding those that we have is essential for a healthy agricultural economy. Continued funding of export development programs is fundamental to improving farm income in the short and long term. We recommend maximum funding of all export development programs consistent with our commitments under the World Trade Organization (WTO) trade rules.

Public Law 480.—We support increased funding for Public Law 480 programs, the primary means by which the United States provides foreign food assistance. The Public Law 480 programs provide humanitarian and public relations benefits, positively impact market prices, and help develop long term commercial export markets.

GSM Credits.—AFBF supports the full funding of the GSM credit guarantee programs. These important export credit guarantee programs can help make commercial financing available for imports of U.S. food and agricultural products on deferred payment terms.

Market Access Program (MAP) and Foreign Market Development Program (FMD).—Congress should fully fund the MAP and FMD programs. These programs need the expertise of a fully supported Foreign Agricultural Service (FAS) that is expanded to cover all existing and potential market posts.

Export Enhancement Program (EEP).—The 1996 FAIR Act authorizes direct export subsidies of U.S. agricultural products through the EEP program through fiscal year 2002 to counter the unfair trading practices of foreign countries. AFBF supports the full funding and use of this program in all countries, and for all commodities where the U.S. faces unfair competition.

Dairy Export Programs.—Farm Bureau supports full funding and use of the Dairy Export Incentive Program (DEIP) to allow U.S. dairy producers to compete with foreign nations that subsidize their commodity exports. Farm Bureau supports using savings from the elimination of the Commodity Credit Corporation purchase program for WTO-legal export development programs.

Sanitary and Phytosanitary Management.—To address the need for additional inspections created by increased volumes of imports and exports, Farm Bureau supports increased funding for USDA's Animal and Plant Health Inspection Service (APHIS).

Foreign Agriculture Service.—Farm Bureau recommends increased support for the Foreign Agriculture Service.

PROGRAMS TO INSURE THE DEVELOPMENT AND USE OF BIOTECHNOLOGY PRODUCTS

USDA must take the lead in biotechnology coordination efforts. It is essential that the Department act in a timely manner to evaluate and move approved products and technologies to the marketplace. USDA should develop a positive national strategy for biotechnology research, development and consumer education. Agriculture's competitive advantage in world markets will be maintained only with the continued support and encouragement of these technological advancements.

Grain Inspection, Packers and Stockyards Administration (GIPSA).—Farm Bureau supports sufficient funding for the establishment of a GIPSA biotechnology test certification laboratory. The creation of such a laboratory is a key element to the acceptance of biotechnology. The ability to accurately test and identify products of biotechnology for identity preserved and segregation purposes is essential.

Codex Alimentarius Commission.—Farm Bureau supports increased funding for the U.S. CODEX office so that it can adequately represent American interests in this important body which develops the international food safety standards used as guidance by the World Trade Organization. Increasingly, biotechnology is the focus of CODEX discussions where an ongoing international effort is being led by the EU to place limits on our ability to export products of biotechnology by incorporating the precautionary principle into the CODEX general principles or biotechnology labeling discussions.

Agriculture Research Service (ARS).—Farm Bureau supports sufficient funding for plant-breeding research programs because they are important for maintaining a broad-based research and assuring advancement of the technology.

PROPER IMPLEMENTATION OF CAFO AND TMDL RULES

Final Total Maximum Daily Load (TMDL) and EPA proposed Concentrated Animal Feeding Operation (CAFO) regulation would impose billion of dollars in costs on agriculture across the country. These attempts at regulatory expansion over agriculture are not necessary to achieve improvement to nonpoint source water quality. Voluntary, incentive-based programs have proven effective by directly assisting farmers to obtain results while maintaining the farm business.

Environmental Quality Incentives Program (EQIP).—EQIP is an important program for assisting producers in dealing with increased water quality regulation. We support a substantial increase in EQIP funding over previous years.

Conservation Technical Assistance (Natural Resources Conservation Service).—Conservation program delivery and technical assistance must be a priority for NRCS funding. Emphasis should be placed on traditional technical assistance and the development of reliable resource data for assisting producers dealing with nutrient management. Estimates show that $550 million is necessary for this effort to help farmers improve farming practices and protect water quality.

OTHER ISSUES

Agricultural Research.—Farm Bureau believes that agriculture research and the distribution of that research to producers is critical to the future of our industry. One of the areas of agreement when the 1996 farm bill was enacted was that funding for agricultural research would be increased to allow U.S. producers to maintain their competitive position in world markets. Farm Bureau recommends a significant increase in agriculture research funding over the next five years.

Emerging Diseases and Exotic Pests Research.—Disease has a direct impact on food safety and is fundamental to international trade. Funding is urgently needed to develop rapid diagnostics, vaccines, and products necessary to protect U.S. plants and animals from disease outbreaks that occur naturally as well as those that could be intentionally introduced. Farm Bureau supports full funding for ARS emerging diseases and exotic pests research including ways to prevent the importation of exotic species in the ballast thanks of cargo ships.

Animal Pest Research.—Farm Bureau believes the control of plant and animal pests is an important factor in reducing farm costs. Farm Bureau supports research funding for scrapie, Johne's, PRRS (porcine reproductive and respiratory syndrome), cryptosporidosis, FMD (foot-and-mouth disease), VS (vesicular stomatitis), BSE (bovine spongiform encephalopathy), hog cholera, salmonella and E.coli.

Plant Pest Research.—Farm Bureau recommends continued research and implementation of detection, exclusion, control and eradication measures for plant pests including research for:

—methods to halt the spread of the Asian Longhorned Beetle, a deadly threat to maple trees.
—an effective control of fire ants and ways to provide safer, effective and practical treatments of multiyear certification of field and container-grown nursery stock.
—ways to manage domestic European honeybees in the area where Africanized honeybees exist.
—the magnitude of the threat of the root-lesion nematode, Pratylenchus neglectus.
—smut and bunt diseases of cereals, including karnal bunt.

Food Quality and Safety Research—Farm Bureau supports funding for research to insure the safety of food. Specifically we support funding for research:

—to insure the safety of food additives;
—on the irradiation (sold pasteurization) of food;
—on inspection methods to eliminate the risk from pathogens;
—food safety technology advances;
—voluntary food safety guidelines to help prevent microbial contamination of fresh produce.

Binational Agricultural Research and Development Fund—Farm Bureau supports increased funding for BARD and other similar programs that maximize cooperative research efforts.

Genome Research—Access to diverse genetic resource materials is crucial for the development of new plant varieties that are more resistant to insect infestation and disease and more tolerant to other adverse environmental conditions. Genomic research is also important to improving the economical traits of importance in live-

stock and poultry that affect animal health and reproductive efficiency. Farm Bureau supports increased funding for the food Genome Project currently administered by the National Science Foundation as well as additional money for plant, animal and microbial genome research at USDA.

Natural Resources Research—Farm Bureau supports funding to study carbon credits and carbon sequestration. We favor continued research on reuse of water; conversion of saline waters; air and water pollution; water and soil conservation; recharging of groundwater basins; drainage; forestry management and utilization; restoration of strip-mined areas; weather forecasting and modification; treatment of domestic, industrial and animal waters; coal desulfurization and other natural resource problems.

Research for new Products for Ag Commodities—Farm Bureau supports increased funding for research and development for new commodities and for new uses of commodities currently under production.

Health and Nutrition Research—Farm Bureau supports funding of nutrition research on relationships between agricultural products and coronary heart disease and cancer.

National Animal Health Emergency Management System—Farm Bureau supports full funding for the National Animal Health Emergency Management System that was developed in cooperation with the states, industry and the veterinary profession. These monies will enhance APHIS's emergency preparedness and response capabilities to address emergency animal disease issues that threaten the U.S. food supply.

ARS and APHIS Laboratory Facilities—Farm Bureau supports full funding for a joint APHIS and ARS facility at Ames, Iowa, to meet national needs for research, diagnosis and product testing for animal health. The existing facilities are antiquated and inefficient and without this new laboratory facility, the U.S. will fail to meet international standards and to provide the level of animal disease protection necessary to achieve a world-class National Animal Health Emergency Management System. We support adequate funding for ARS biocontainment facilities that are critical to maintaining world-class research on both foreign and domestic diseases.

Plant Pest Control.—Farm Bureau supports funding for control and/or eradication programs for plant and animal pests including: grasshoppers; multiflora rose; autumn olive; Johnsongrass and other designated noxious weeds; eradication of fruit flies; Russian Wheat Aphid; gypsy moth, southern pine bark beetles; and Plumpox virus.

Boll Weevil Eradication.—Farm Bureau recommends full funding for Boll Weevil eradication to provide a 30 percent match with producer funding to facilitate the orderly eradication and/or containment of the pest across the balance of the cotton-growing area.

Pseudorabies.—Farm Bureau supports adequate funding of the pseudorabies eradication plan developed by the swine industry.

Bruecellosis.—Farm Bureau supports funding for a brucellosis control program leading to eradication of this disease in swine. The Federal government should continue full funding of brucellosis control activities in all infected states. Because brucellosis is transmittable from wildlife to domestic livestock and humans, we support funding to compensate livestock owners for losses brought about by contact with wildlife.

Johne's Disease.—Farm Bureau supports funding to develop an accurate blood test for Johne's Disease; to reduce producers' cost to test for Johne's Disease; and for a multi-year program to identify Johne's disease infected animals and to provide an indemnity payment for the disposal of these infected animals.

Inspection and Grading of Meat and Poultry.—Farm Bureau recommends that funding for any new federally mandated seafood inspection program should be consistent with existing funding for other food commodities.

Conservation Operations.—We continue to be concerned about adequate Natural Resources Conservation Service (NRCS) conservation operation funding. Conservation program delivery and technical assistance should be a priority for NRCS funding. Emphasis should be placed on traditional technical assistance and the development of reliable resource data for assisting producers to deal with nutrient management and other conservation concerns.

Grazing Lands Conservation Initiative (GLCI).—We support funding for technical assistance under the GLCI as authorized in the 1996 farm bill.

Environmental Quality Incentive Program (EQIP).—With regard to conservation programs under the Commodity Credit Corporation Program (CCC), we believe that emphasis should be placed on EQIP. EQIP is an important program for assisting producers dealing with increased water quality regulation and other conservation concerns. We support a substantial increase in EQIP funding over previous years.

Forestry Incentive Program (FIP).—Farm Bureau supports funding for the Forestry Incentive Program and suggest funding at $6 million.

Farmland Protection Program.—Farm Bureau supports $65 million in funding for the Farmland Protection Program.

Wildlife Services.—Wildlife Services should receive increased funding for both operational and research programs.

Ag in the Classroom.—Most students no longer have firsthand farm experience and, therefore, lack a basic understanding of our food and fiber system. The Agriculture in the Classroom program provides real world examples that teach about agriculture production food safety, nutrition and healthy lifestyles, and career opportunities. Farm Bureau supports an increase to $750,000 for Ag in the Classroom under CSREES.

Risk Management Agency.—Farm Bureau supports long term funding for the Risk Management Agency.

Ag Marketing Equity Capital Fund.—Farm Bureau supports funding for the Agricultural Marketing Equity Capital Fund to help producers develop value-added enterprises.

WIC Market Coupon Program—Farm Bureau supports increased funding for WIC market coupon program.

Rural Development Issues.—Farm Bureau supports the community and business programs of the office of Rural Economic and Community Development. We support funding for rural development and recommend targeting a greater portion of all funds towards stimulating commerce in rural areas.

PREPARED STATEMENT OF THE AMERICAN FARMLAND TRUST

Last summer, the U.S. Department of Agriculture hosted five listening sessions around the country on "Maintaining Farm and Forest Land in Rapidly Growing Areas." Hundreds of producers, community members and elected officials testified on how rapid growth in traditionally agricultural areas impacts their operation and their community. Although this was the first forum on urban edge agriculture held by USDA, the same concerns and calls for assistance are being heard at conferences hosted by the National Governor's Association and the U.S. Conference of Mayors. During a recent NGA conference on "Private Lands, Public Benefits," U.S. Environmental Protection Agency Administrator Whitman highlighted the needs of farmers faced with sprawling development and the need to build programs that address them.

Why are farmers and ranchers in urban edge areas gaining so much attention? Because they have become an integral part of the U.S. farm economy and their numbers are growing. According to the USDA Economic Research Service, there are now over 1,800 counties where agriculture is threatened by rapid growth. Within those 1,800 counties, agriculture in the nation's Metropolitan Statistical Area (or MSA) counties accounts for over a third of total agriculture production and land value. That is equivalent to the farm economy of Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, Nebraska and the Dakotas combined. Or, to look at it another way, it's equivalent to the total value of all agricultural exports.

Throw in Texas, Mississippi and the rest of the South and the total output still would not equal the production of a larger group of urban edge agriculture that includes those counties adjacent to MSAs that are the next targets of sprawl. Today, more than half the nation's agricultural production occurs within commuting distance of our rapidly expanding cities.

Agriculture in these counties faces the same price and supply challenges of traditional agriculture, but farmers and ranchers in these areas also must contend with nuisance suits, trespassing and escalating land values. With ninety-percent of the U.S. population living downstream from urban edge farms, they also have the greatest impact on our environment and quality of life. Farm and ranchlands in urban areas reduce runoff, provide wildlife habitat and scenic landscapes. Once the land is paved over, it becomes much more difficult to improve environmental quality. Yet, these producers receive little to no Federal assistance from USDA. We cannot afford to let this growing sector of U.S. agriculture continue to struggle without Federal assistance.

We urge you to use the fiscal year 2002 agriculture appropriations bill to recognize the value and needs of urban edge farmers and ranchers by funding key programs that protect the land by giving producers an alternative to development, build public support for agriculture by improving environmental stewardship and make urban edge agriculture profitable long term.

Protect the Land and Create An Alternative to Development

Urban edge farms are disappearing. The 1997 National Resources Inventory (NRI) showed a loss of 1.2 million acres of cropland, pasture and rangeland a year—a rate 50 percent higher than in 1992. The amount of topsoil we are paving over each year is roughly equivalent to what we are saving with all Federal soil conservation programs, CRP included. And what the NRI doesn't show is that the land is also being fragmented, broken up like a checkerboard. For every acre paved, an AFT study estimated an additional 2 to 3 acres become harder to farm because of conflicts with neighbors over noise, odors, dust and chemical drift. The USDA Economic Research Service estimates 164 million acres of farmland are now threatened by sprawling development. Selling conservation easements under the Farmland Protection Programs locks in a land base for agriculture and gives farmers and ranchers a way retain their way of life instead of selling to developers. Protecting this land through the Farmland Protection Program requires a much stronger commitment from Congress. If we want to ensure agriculture remains viable in the 1,800 counties faced with rapid growth, Congress needs to ramp up the Farmland Protection Program significantly. In the next ten years, at least $1 billion a year is needed to slow the loss of farmland to development. States and local governments are doing their part, committing over $200 million a year to purchase development rights. We must acknowledge that the benefits generated by protecting well-managed farmland flow to the entire nation, and we must make the Federal government a full partner in achieving them. In fiscal year 2002, we urge Congress to allocate $200 million to the Farmland Protection Program.

The demand is there from farmers and ranchers and the infrastructure is there to use it effectively. This January, when USDA announced the availability of $30 million in FPP funds, applications to protect over 780 farms and ranches were submitted. Unfortunately, recent cuts to the program will allow USDA to help less than 10 percent of those landowners. Around the country, there are another 4,000 farmers and ranchers waiting to sell their development rights if funding were available. With more states and counties starting their own farmland protection programs, the expertise and manpower to carry out an expanded Federal program is ready to go. By partnering with state and local programs, Federal dollars were leveraged six times.

Build Public Support for Agriculture By Improving Environmental Stewardship

Eighty percent of all Americans, more than 190 million people, live in urban areas, yet less than one-tenth of one percent of the budget for forestry and conservation programs is dedicated to these areas. Continued support for large agriculture programs will require increasing the connection between voters and agriculture. Demonstrating the public benefits improved water quality, wildlife habitat and open space—agriculture producers will build this connection to urban and suburban residents. Essentially, we have to recognize that farmers and ranchers produce more than food and fiber. They are our nation's most important environmental managers as well. We can help stabilize the farm economy by assigning value to the environmental commodities produced by farmers and ranchers and start paying for them. We already have most of the programs in place to do this; we just have not funded them adequately. It was very disappointing to see the Administration's budget request cut key conservations programs. These cuts send the entirely wrong message to farmers and ranchers who have been oversubscribing to these programs by a 5 to 1 margin.

The Wetlands Reserve Program, Environmental Quality Incentives Program and the Wildlife Habitat Incentives Program all return benefits to the public that we know voters are demanding. A recent Gallup poll ranked water quality and open space as top concern of voters. Last year, voters approved more than $7 billion to protect open space. Unfortunately, Congress has not met that demand. Instead, we continue to spend billions of dollars on income support for a small segment of farmers and ranchers. In fiscal year 2002, we need to put conservation programs on equal footing with commodity programs. Funding for WRP needs to be increased to allow USDA to enroll 170,000 acres next year. To reduce the backlog of farmers waiting to enroll in EQIP, we urge you to increase its funding to $350 million. Finally, to make up for the recent cut to WHIP funding and to meet the critical habitat improvements needed along our nation's rivers and streams, we urge you to increase WHIP to $70 million in fiscal year 2002. Only at these levels, can USDA serve the current needs of farmers and ranchers and look at new ways to expand them in urban edge areas.

Make Farming Profitable Long Term

Since selling development rights or adopting conservation practices is an economic as well as environmental choice, we need to address economic viability of farming and ranching in urban edge areas. Farmers can survive, even thrive, in urban edge areas if they are given technical and financial assistance to adapt their operation to the consumers and markets around them. In the last ten years, farmers markets have exploded into our cities and suburbs. These consumers are looking for fresh, locally-grown food and farm products. In fiscal year 2002, Congress should increase funding for Resource, Conservation and Development to at least $45 million to hire on the ground experts to help urban edge producers take advantage of their local markets by diversifying their production, developing new products and implementing direct marketing. At the same time, Congress should increase funding for the Sustainable Agriculture, Research and Extension to $30 million this year to help communities improve their agriculture infrastructure, develop new marketing programs and apply new research results to help producers reduce their operating costs.

For farming to prosper in rapidly growing areas, we need to protect the land base; we need farmers making profits; and, we need to have a general public that wants agriculture to be a visible part of their community. USDA has the tools and programs to make all of these steps happen, but without adequate funding not enough resources will reach farmers and ranchers in the urban edge. It is time to recognize the importance of this sector of U.S. agriculture to our farm economy and our farm communities. Voters are demanding these changes and state and local governments have started listening. We hope the fiscal year 2002 agriculture appropriations bill will launch the Federal commitment to urban edge agriculture.

PREPARED STATEMENT OF THE AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES, LOCAL 3354 AND THE AMERICAN FEDERATION OF STATE, COUNTY, AND MUNICIPAL EMPLOYEES, LOCAL 3870

RURAL AMERICA NEEDS MORE COMPASSION

Family farmers, the ill-housed rural poor, and small rural communities must receive a share of the budget surplus! We urge you to do whatever you can to make sure the budget allocations for agriculture and rural development are sufficient to enable the appropriations requested below.

—The debate on Capitol Hill over what to do with the historic opportunity presented by the budget surpluses has focused on the relative merits of tax cuts for the wealthy and elimination of the debt. Too little attention has been paid to what this issue is really about—making it impossible for the government to invest in any of the long list of priorities that would truly make America better off.

—Our nation has an enormous backlog of much-needed public investment—especially in supporting family farms over factory farms, in rural housing, and in rural community and economic development. AFGE and AFSCME believe that public investments are by far a more prudent and responsible use of current and future surpluses than meager tax cuts for working families and windfalls for the rich.

—We ask the Members of this Subcommittee to increase investments in family farmers, the ill-housed rural poor, small rural communities, and the USDA employees who deliver these programs. The fiscal year 2001 Federal budget amounted to only 18 percent of Gross Domestic Product, the smallest percentage since 1966. The tax cuts that have been proposed for the top 1 percent of wealthy Americans, if withheld, would provide over $500 billion for these, and other, investments over the next ten years. We need to increase government investments for the common good, not give away the budget surpluses to private greed!

THE BUSH BLUE PRINT FOR USDA—OUR CONCERNS

The Congressional Budget Office (CBO) baseline to simply maintain 2001 levels of discretionary spending for Agriculture is $19.6 billion. According to the Administration, funding of "core operations", as distinct from emergency assistance, was $18.6 billion. The proposed discretionary budget authority level for fiscal year 2002 is $17.9 billion. That's going in the wrong direction, no matter which baseline number is used.

In human terms, the Blue Print states the President's fiscal year 2002 Budget will:

—Finance the acquisition of decent, safe, and affordable housing by 57,000 low-to-moderate income families in rural America, compared to 80,000 housing units claimed in the fiscal year 2001 budget;
—Create 40,000 jobs in rural areas, compared to 55,000 the fiscal year 2001 budget was estimated to create;
—Give access to 1.4 million poor, rural residents to clean, safe drinking water, compared to 1.7 million for whom new or improved water systems were provided in the fiscal year 2001 budget.

With respect to the USDA employees who provide these services throughout rural America, the Blue Print states as follows: "In the early 1990s, under the previous Bush Administration, an effort was begun to streamline USDA's county office structure to improve service and reduce costs. Nearly one-third of USDA's field offices have been closed since that time. However, there are still about 5,600 USDA county-level offices serving one million farmers (not counting 1,300 USDA rural development offices that serve farmers and other rural residents). The Department will review the efficiency of USDA's remaining field office structure, recognizing that many farmers and other rural customers want to use computers and fax machines to transact business with USDA. To meet those needs, the budget includes funds to continue efforts to streamline and modernize USDA's county office structure through completion of a common computing environment and reengineering the way USDA conducts business. In 2002, customers will be able to conduct business with the county-based agencies electronically. The Administration expects long-term savings and improved service from merging the information technology services of the three county-based agencies . . . "

We have major differences with this analysis, and its implications for rural America, as follows.

AFGE AND AFSCME FUNDING PRIORITIES FOR AGRICULTURE APPROPRIATIONS

Increased Salaries & Expenses funding for the Department of Agriculture's Rural Development mission area is our No. 1 funding priority for the Subcommittee's Appropriations for Agriculture, Rural Development, and Related Agencies! Congress should appropriate at least $654.5 million for Rural Development salaries and expenses in 2002, for the reasons outlined below.

Since 1995, the Congress has increased Rural Development programs by 69 percent overall; yet, our staffing levels have been cut by 28 percent. Our servicing areas in the Field, and our workload in the National and Finance Offices, has doubled or tripled. With decreased staffing, customer service suffers. Almost no funds have been allocated to training for the past six years! The situation has deteriorated to the point where State Directors have had to stop most overtime work. Use of privately owned vehicles for official travel has been prohibited, and use of government-owned vehicles has been limited. These restrictions on travel and overtime make it next to impossible for our employees to do our jobs! Timely inspections are not completed. Interviews of potential borrowers have to be conducted by phone. Night meetings of community leaders and organizations, county commissions, city councils, real estate interests, and potential customers cannot be attended.

It is laborers and white and blue-collar workers that are the infrastructure of our rural communities, in addition to our farmers. If we can't provide housing, utilities, and jobs to enable them to be productive taxpaying citizens, how can we say the cost outweighs the benefits? Low-income rural Americans need public servants, with sufficient expense funds to support travel, overtime, training and information technology, to deliver these housing, community, and business development programs.

The Rural Development (RD) loan and grant programs are just as important, even more so in terms of number of people reached, as the various programs delivered by FSA. RD needs staff to deliver these programs, just like FSA needs staff to deliver its programs! It is even more imperative that Congress increase the appropriated S&E funding for Rural Development because RD does not have access to CCC funds, university grants, user fees, or any other outside source of funds to help support its employees. "If we're going to have meaningful programs supporting family farmers and rural communities, we need to maintain USDA's infrastructure of county offices, with sufficient staff, that is responsible and accountable to deliver these programs." Bill Christison, President, Family Farm Coalition

The House Budget resolution included a provision, supported by our unions, to ensure parity in pay increases between the military and civilian employees. This will require an increase of 4.6 percent above the fiscal year 2001 levels. Salaries & Benefits has been running approximately 75 percent of RD's total S&E account. Therefore, additional appropriations of approximately $20 million will be required to maintain current staffing levels. We also urge the Subcommittee to provide at least

$15 million for employee training, an increase of approximately $13.5 million over fiscal year 2001 levels.

In addition, we believe the nature of many of the programs administered by Rural Development warrants some additional offices, not reduction. The communities and families we serve range from very low income to moderate income. Many are elderly, handicapped, very poorly educated, have no telephone, and definitely no computer or fax machine. To become successful homeowners, they need home buyer education and credit counseling, provided in person, preferably by a USDA employee who is a resident of their own community. To meet this need, we propose adding 700 more staff for RD.

Approximately 600 of these staff years would go to local offices to provide one person per office whose main duty is to provide home buyer education and credit counseling to our Rural Housing borrowers, also assisting in other program areas as needed. The remaining 100 staff years would be used to increase IT staff in St. Louis, Washington, and in the States. We estimate the fully loaded cost of these staff years to average $57,000, requiring an additional human capital investment of $40 million.

Funds to increase Rural Development staff, and direct loan programs, should be obtained in the following ways, and by reducing the tax cut proposed by the Bush Administration for wealthy Americans:

We can support the Administration's proposal to eliminate the $25 million in rural housing funding from HUD because rural housing is best provided through USDA's field delivery structure throughout rural America. Those funds should be added to the budget of Rural Development, and not just eliminated.

We also believe that Members of Congress should find a way to reuse the subsidy recapture funds from the 502 program to further invest in successful homeownership for low-income rural Americans. During fiscal year 2000, RHS recaptured $30,656,000 in Principal Reductions According to Subsidy (PRAS), and $88,332,000 in Interest Subsidy. These funds are collected and returned to Treasury when borrowers pay off their loans. When compared to the costs to the government of foreclosing on low-income rural homeowners, we would all benefit by reinvesting some of these funds in our proposed homebuyer education and credit counseling initiative because foreclosure losses would be significantly reduced. If just one percent more rural homeowners are successful as a result of this education and counseling, losses to the government would be reduced by $75 million.

Public investments in Rural Housing are both compassionate and conservative.

Since its inception in 1950, the Section 502 direct program has produced over 1.9 million units of safe, decent, sanitary housing and supported a variety of innovative housing development opportunities such as the mutual self-help housing program (sweat equity). Over the past ten years, however, the program's production capacity has declined 41 percent, from 26,203 units in 1988 to only 15,561 in 1998. It is even more startling to compare the paltry 1998 production to the over 132,000 units produced in 1976.

As of February 7, 2001, RHS had 30,778 qualified applications pending for Section 502 loans totaling $2,180,340,430. As of that time, however, we only had approximately $784,781,000 available in unobligated funds. An additional investment of at least $1.4 billion is needed in the Sec. 502 direct loan program.

We are glad to hear that Senators Kit Bond (R-MO) and John Kerry (D-MA) are planning to introduce new housing production bills. We ask them, and the Members of this Subcommittee, to both authorize, and appropriate, significant new investment in rural housing production. The National Rural Housing Coalition's October 2000 report documents the following needs:

—Rural homeowners are more likely than homeowners as a whole to live in substandard housing.

—Rural homeowners, particularly minority households, face excessive housing related costs.

—The limited availability of credit on reasonable, affordable terms and conditions makes it harder to get a loan and limits the utility of the secondary market for rural housing loans.

—The rate of federal assistance to non-metro households is only about half that for metro households.

Greater investments in the Section 502 (Single Family Direct Loans), Section 504 (Housing Repair Loans), Section 514 (Farm Labor Housing), Section 523 (Self-help Housing Loans & Grants), and Section 525 (Technical Assistance Grants). We also need to increase investment in Rural Rental Housing, to meet the housing needs of the poorest of the poor who cannot pay back a mortgage loan to at least $250 million, plus increased Rental Assistance. It costs money to house the poorest of the

poor, both construction and rental assistance. We subsidize homeownership some $98 billion per year in the form of interest deductions. Rebuilding the 515 rural rental program costs less than homelessness or nursing homes.

PUBLIC INVESTMENTS IN LIMITED RESOURCE AND BEGINNING FARMERS ARE COMPASSIONATE AND CONSERVATIVE TOO

Investment in the Farm Ownership Direct Loan program needs to be increased, at least back to fiscal year 2000 levels. In Oklahoma, all available funds for fiscal year 2001 have already been used up. In many states, as much as 70 percent of the farm land will change ownership over the next fifteen years. Unless the direct farm ownership loan program is significantly enhanced, most of that farm land will go to the existing large farms, and the benefits and productivity of family farming will continue to be wiped out.

We also ask the Subcommittee to provide the authorized amount of $10 million for Outreach and Technical Assistance Program for Minority Farmers. The Outreach and Technical Assistance program is the most effective tool developed to carry out the mission of USDA as the technical provider for small farmers. For a very small investment, the program has significant multiplier effects in poor communities where there exist few other possibilities for sustainable economic development.

AFGE and AFSCME also suppors the need to increase Salaries & Expense funding for Farm Service Agency to incorporate the temporary employees funded through emergency appropriations during each of the last several years into the baseline S&E appropriation, as requested by the National Association of County Office Employees (NASCOE).

FSA should be required to allocate more staff resources to the Farm Loan Programs. The program management standard for excellence in our direct farm loan programs is that each responsible loan officer should never have a caseload of more than 56 borrowers. Today, our farm loan officers in many states have an average caseload of 150 to 200 borrowers. This makes it impossible to adequately perform the supervised credit functions, which ensure the success of the program. We have also not had sufficient staff, or contracting funds, to perform real estate appraisals, chattel appraisals, and year-end farm analysis. For several years, these functions have been contracted out due to the arbitrary employee downsizing targets of the Clinton Administration. Now, we're not even getting enough money to contract for these services.

As NASCOE has urged, staffing levels and patterns should be based on real strategic planning and performance measures/goals. The USDA County-Based Agency Study conducted at the request of your Subcommittee indicated that approximately 30 percent of FSA's workload is support for the Farm Loan Program. The Appropriations Subcommittees should allocate 30 percent of FSA's Salaries & Expenses to support of the Farm Loan Program. The Agricultural Credit Insurance Fund could be used for this purpose by changing the legal language and increasing the appropriation for S&E from this account.

FUNDING FOR THE COMMON COMPUTING ENVIRONMENT

The Office of the Chief Information Officer (OCIO) is requesting $100 million in additional funding for IT modernization in fiscal year 2002. While AFGE Local 3354 and AFSCME Local 3870 support the need for a common computing environment and modernization of the IT capabilities in our Field Offices, we can only support appropriating these funds AFTER Congress has FIRST found the money to support increased investments in staff and direct loan programs, as outlined above.

We agree with much of what Senate Government Affairs Chairman Thompson (R-TN) said in his March 16 letter to Senate Budget Committee Chairman Domenici (R-NM) and ranking member Conrad (D-ND). While Senator Thompson lauded the administration's plans to promote e-government projects and tighten federal computer security, he also emphasized that any workforce cuts should be guided by strategic planning. He did not call for increased funding to support the administration's proposed e-government fund, as Senator Lieberman (D-CT), the ranking Democrat on the Government Affairs Committee, had done the previous week. Senator Thompson added that "workforce restructuring should be done pursuant to a strategic plan and that there are areas where increases in human resources are necessary."

The Bush Administration Blue Print for USDA suggests that these funds to "streamline and modernize USDA's county office structure through completion of a common computing environment" will be combined with a "review of the efficiency of USDA's remaining field office structure, recognizing that many farmers and other rural customers want to use computers and fax machines to transact business with

USDA". We believe this perspective continues the type of arbitrary assumptions for which Senator Thompson correctly criticizes the Clinton Administration. "E-government" is apparently seen as a means to downsize the Federal workforce while also increasing customer service. As stated above, such an approach would exclude the low-income rural citizens served by Rural Development from access to homeownership and other economic opportunities. Guaranteed lenders demand, and should have, appropriate electronic access to USDA. But small, isolated, poor rural communities cannot be served by "e-government" alone. Like Senator Thompson, we believe there are some areas where real strategic planning, as distinct from pie-in-the-sky silver bullets, means Federal hiring should be stepped up.

CONTRACTING OUT

AFGE and AFSCME believe the No. 1 management improvement needed to achieve a Common Computing Environment, or otherwise more effectively deliver USDA programs to the people we serve, is to reduce the waste of funds for poor quality work that results from current USDA contracting out practices. Until this problem is addressed, we cannot support the Administration's assumption that "merging the information technology services of the three county-based agencies" will lead to "long-term savings and improved service."

During 1998, an Information Technology Functional Team, consisting of labor and management from the IT organizations of Rural Development, NRCS, and FSA, developed "Information Technology Contracting Recommendations". This official agency document recommends that Federal staffing for IT support be increased, through reductions in more expensive contractor personnel, as the least costly and best service solution. The reason for this conclusion was simple: It costs $50,000 per FTE less, on average, to utilize Federal employees, rather than contractors, to provide Information Technology support to the USDA county-based agencies!

Despite this fact, and these recommendations, the OCIO has continued to increase reliance on contractors, and our IT organizations in St. Louis and Washington have not even been allowed to back-fill Information Technology positions as they become vacant due to retirement and attrition. Since 1993, the Rural Development IT workforce has been cut by over 30 percent, while our workload has increased from 4 million to 11 million lines of code. We do not support continued pouring of funds into a SWAMP (Stop Wasting America's Money on Privatization) of waste, fraud, and abuse through contracting out. Therefore, we also do not support continued massive funding of the OCIO's requests until, and unless, the reforms advocated below have been enacted by Congress, and implemented by USDA.

The House Report on the fiscal year 2001 Agriculture Appropriations Act attempted to address this issue:

The Committee directs the Department to make cost comparisons of the use of private contractors with Federal employee performance and to employ the most efficient organization process as described in OMB Circular A–76. The Committee also directs the Department to report on its contracting out policies, including the agency budgets for contracting out, with its annual budget submission for fiscal year 2002.

I can assure the Members of the Subcommittee that USDA ignored this directive. No cost comparisons of the use of private contractors with Federal employee performance were conducted during fiscal year 2001 by either Rural Development or the Farm Service Agency. Therefore, we will submit language to be added to the Agriculture Appropriations bill for fiscal year 2002 to ensure that cost comparisons are conducted.

Finally, USDA has listed thousands of Rural Development and Farm Service Agency jobs as commercial, subject to contracting out, under the FAIR Act, totally ignoring employee input that many of our functions should be classified as inherently governmental. No less an authority than Comptroller General, David Walker, recently stated: "Government can never privatize the duty of loyalty to the greater good, namely, the need to look out for the collective best interests of all rather than the narrow interests of a few." The loan and grant programs of Rural Development and Farm Service Agency provide subsidies to enable very low to moderate-income rural Americans become successful homeowners, small family farmers, and to provide economic development of small rural communities. These are inherently governmental functions, and we will also submit bill language designed to address this further concern regarding threatened privatization of Department functions.

PREPARED STATEMENT OF THE AMERICAN FOREST & PAPER ASSOCIATION

The American Forest & Paper Association (AF&PA) submits this written testimony for the record in support of USDA research programs that contribute prag-

matic solutions to our nation's sustainable forestry needs. Both USDA Forest Service Research and USDA Cooperative State Research, Education, and Extension Service (CSREES) have the obligation to support research to benefit all forest landowners, public and private. These organizations are uniquely qualified to support collaborative, long-term research and deserve well-targeted funding increases to focus resources where they are critically needed: on forest productivity, utilization, and inventory issues.

AF&PA INTEREST IN FOREST RESEARCH

AF&PA has a substantial interest in promoting research to improve and document forest productivity. As the national trade association of the pulp, paper, and forest products industry, we represent approximately 84 percent of paper production, 50 percent of solid wood production, and 90 percent of industrial forestland in the United States. Forests provide a renewable raw material source for our industry, which attempts to meet consumer demand while providing rural communities with stable, living-wage job opportunities. We face a significant global competitiveness challenge, as companies throughout the southern hemisphere grow trees three to four time faster at a fraction of the cost, often without environmental compliance standards similar to those in the United States. We also face a significant domestic challenge as the entire forestry community needs timely access to more consistent, comprehensive, and accurate forest measurement data.

AF&PA is a member of the National Coalition for Sustaining America's Nonfederal Forests and supports the overall objective of well-targeted increases in federal investments to support forestland stewardship. Research contributes cutting edge, science based solutions to ensure that our nation's forests can be managed sustainably for all values.

RELATED AF&PA PROGRAMS

Two AF&PA programs recognize the critical contribution of forest research to sustainable forestry: the Sustainable Forestry Initiative (SFI)SM Standard and Agenda 2020. The Sustainable Forestry Initiative (SFI)SM Standard is a condition of AF&PA membership and requires that participants support "forest research to improve the health, productivity, and management of all forests." The AF&PA Agenda 2020 program is a collaborative effort initiated with the U.S. Department of Energy to promote research that enhances energy efficiency in areas such as forest raw material supply. Competitive grants are awarded to universities and agency labs based on matching funding, scientific peer-review, and collaboration.

Agenda 2020 provides an outstanding model of a public/private partnership that efficiently allocates Federal funding to support research that benefits the nation. AF&PA would like to expand this partnership and add USDA agencies as formal Agenda 2020 partners.

GENERAL RESEARCH RECOMMENDATIONS

AF&PA supports funding increases within existing authorizations for USDA agencies best qualified to conduct long-term forest productivity research to benefit all landowners. The need for pragmatic research designed to produce and measure healthier, faster growing forests far exceeds supply. Well-targeted increases in Federal funding support are needed to re-build research capacity and focus resources in areas where the nation will receive the best return on investment: biotechnology/genetics, soil productivity, tree physiology, forest measurements and forest products utilization.

A portion of this funding should be allocated through competitive grants that support collaborative Agenda 2020 research. Greater use of tools such as matching funding, competitive grants, and scientific peer-review will leverage scarce resources, ensure quality research, and help measure success. To the greatest extent possible, agency research priorities should be established in collaboration with university, state, and private sector forest researchers and managers. This will ensure that research objectives remain relevant to all forestland owners.

AF&PA concurs with the recommendations contained in the 1998 National Research Council report: "Forested Landscapes in Perspective: Prospects and Opportunities for Sustainable Management of America's Nonfederal Forests." The report, commissioned by the Secretary of Agriculture, calls for greater funding in forest science, technology and research programs. In "Report to the Secretary of Agriculture" dated November 1, 1999, the Forest Research Advisory Council (FRAC) urged USDA to "foster competitive grant or other programs" to address "sustainable intensive timber production" and "forest assessment (inventory)." This represented

the views of 20 forest research experts from Federal and State government, industry, academia, and the conservation community.

AF&PA forest research recommendations are also consistent with the Congressional findings of the 1998 Farm Bill. It is important to review some of those findings since it gets to the heart of the forest community's ability to compete in the global marketplace. Congressional findings included:

—"Uncertainty over the availability of the United States timber supply, increasing regulatory burdens, and the lack of Federal Government support for research is causing domestic wood and paper producers to move outside the United States to find reliable sources of wood supplies, which in turn, results in a worsening of the United States trade balance, the loss of employment and infrastructure investments, and an increased risk of infestations of exotic pests and diseases from imported wood products" and

—"Wood and paper producers in the United States are being challenged not only by shifts in Federal Government policy, but also by international competition from tropical countries where growth rates of trees far exceed those in the United States. Wood production per acre will need to quadruple from 1996 levels for the United States forestry sector to remain internationally competitive on an ever decreasing forest land base."

FISCAL YEAR 2002 USDA RECOMMENDATIONS—AGRICULTURE APPROPRIATIONS
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE (CSREES)

Four programs administered by the USDA Cooperative Research, Education, and Extension Service (CSREES) make a significant contribution to supporting university research, forestry education, and vital partnerships. These are McIntire-Stennis, The Renewable Resources Extension Act (RREA), the National Research Initiative (NRI), and the Initiative for Future Agriculture and Food Systems (IFAS).

AF&PA strongly supports these programs and specifically recommends a total $39.9 million increase (4.0 percent) for the USDA Cooperative State Research, Education, and Extension Service (CSREES) targeted at three (3) priorities, summarized and discussed below.

[Dollars in millions]

Budget Item	Fiscal year 2001 Total Funding	Fiscal year 2002 Targeted Increase	Fiscal year 2002 Total Funding
McIntire-Stennis	$21.9	$8.1	$30.0
RREA	3.2	11.8	15.0
NRI	106.0	20.0	126.0
Total—Priority Programs	131.1	39.9	171.0
Total CSREES fiscal year 2001 Budget—Enacted	988.6		
Percent Increase		4	

$8.1 million increase for the Cooperative Forestry Research Program (McIntire Stennis Act).

This program provides critical core funding for forestry research and scientist training efforts at universities. It is authorized at $105 million, was funded at $21.932 million in fiscal year 2001 and matched more than three times by universities with state and nonfederal funds. AF&PA suggests that a total $8.1 million increase be targeted as follows:

—$3 million—forest productivity research as defined by Agenda 2020
—$2.1 million—forest information technology
—$1.1 million—wood utilization and processing technology
—$1.9 million—assessing economic impacts of policy decisions

$11.8 million increase for the Renewable Resources Extension Act (RREA) program.

This program provides the foundation for extension and outreach efforts delivered to private landowners through universities. It is authorized at $15 million and was funded at $3.192 million in fiscal year 2001. Cutting-edge sustainable forestry solutions developed through research are of limited benefit unless they can be effectively delivered to the nation's forest landowners. AF&PA suggests a total $11.8 million increase to fully fund this important program, with new funding targeted at developing databases, communications materials, and effective delivery mechanisms to

ensure that landowners have easy access to forest management advice and professional services.

$20.0 million increase for the National Research Initiative Competitive Grants Program (NRICGP) targeted at forestry research in the areas of forest biotechnology, forest soil productivity, tree physiology, and forest information technology.

This program is a significant source of funding ($106 million in fiscal year 2001) for basic and applied research in several categories related to agricultural crops, sustainable forestry, and related market/trade issues. It has great potential to contribute to the nation's sustainable forestry research needs, though only ten percent (10 percent) of the available funding has been allocated to forestry research. AF&PA supports a total $40 million increase targeted at Agenda 2020 priorities, equally divided between fiscal year 2002 and fiscal year 2003, as a reasonable means to increase the emphasis on critical forestry research needs.

FISCAL YEAR 2002 USDA RECOMMENDATIONS—INTERIOR APPROPRIATIONS FOREST SERVICE RESEARCH & DEVELOPMENT

AF&PA supports increased funding for Forest Service research in three areas of critical importance:

—Forest Productivity Research with a Competitive Grants funding component,
—Forest Inventory & Analysis (FIA) program,
—Forest Products Laboratory in Madison, Wisconsin. Improved science in these areas transcends ownership categories and will result in enhanced tree growth, improved knowledge for sustainably managing all forest values, and increased wood utilization efficiency. As authorized by the Forest and Rangeland Renewable Resources Act of 1978, Section 2 (a)(1), Forest Service research should "support the protection, management, and utilization of the Nation's renewable resources." This Act refers not just to public lands, but to private lands as well.

AF&PA recommends a total $31.5 million increase (13.7 percent) for Forest Service Research & Development targeted at three (3) priorities, summarized and discussed below.

$11 million increase for Forest Inventory and Analysis (FIA).

This is consistent with recommendations in the Memorandum of Understanding (MOU) between the Forest Service and the National Association of State Foresters. Forest Inventory and Analysis (FIA) provides data needed to measure forest growth, health, and other essential information needed to make resource allocation and forest policy decisions.

$16 million increase to build forest productivity research capacity, with $10 million dedicated to Competitive Grants to support Agenda 2020 priority research in biotechnology, forest soil productivity, tree physiology, and forest information technology.

The number of scientists and projects focused on producing more wood products from fewer acres has dramatically declined as the agency has moved away from commodity production. Forest Service regional experiment stations have both an obligation and the unique ability to address the nation's sustainable forestry needs through long-term research. Section 1672 of the Agricultural, Research, Extension, and Education Act of 1998 (Research Title of the Farm Bill) specifically identified improving long-term forest productivity as a priority research need and allows the Secretary of Agriculture to award competitive grants for such research.

We recommend that the Forest Service implement a formal competitive grants program at fully authorized levels to support collaborative forest productivity research through Agenda 2020 in the areas of biotechnology, soil productivity, tree physiology, and forest information technology. This will help build stronger partnerships between the agency and our nation's university-based forestry schools.

$5.5 million increase for Forest Products and Utilization Research at the Forest Products Laboratory in Madison, Wisconsin and other labs, with $2 million to support core functions and $3.5 million dedicated to the housing research initiative.

A $2 million funding increase for core functions will ensure continued technological innovation in using renewable wood products. Forest products and utilization research contributes to improved forest productivity and sustainability by focusing on efficient and effective use of wood fiber. AF&PA also endorses the housing research initiative and suggests that $7 million equally divided between fiscal year 2002 and fiscal year 2003 is a reasonable and responsible means to provide technological innovation needed to respond to increased housing demand.

CONCLUSION

In conclusion, AF&PA recognizes a critical need for increased investment in forest research and respectfully recommends well-targeted increased appropriations within USDA. At least two USDA agencies are uniquely qualified to support collaborative, long-term research in priority areas: forest productivity, utilization, and inventory. Increased appropriations for these forest research priorities are a needed investment that will pay substantial dividends for our nations' future.

PREPARED STATEMENT OF THE AMERICAN HONEY PRODUCERS ASSOCIATION, INC.

My name is Richard Adee. I am President of the American Honey Producers Association, Inc., and I am submitting this statement in its behalf. The American Honey Producers Association, Inc. is a national organization of commercial beekeepers with activities in most of the States in this country.

First, the Association wishes to thank the Subcommittee for the support it has provided in the past for agricultural research activities in behalf of the beekeeping industry. It has enabled the Agricultural Research Service to staff its bee laboratories at the minimum level necessary to meet with critical needs of the industry. To continue this research, the Association supports funding for bee research at the ARS facility at Weslaco, Texas, at not less than the level appropriated for fiscal year 2001. The Association also recommends an increase of $500,000 in the level of funding for the ARS honey bee breeding, genetics, and physiology laboratory at Baton Rouge, Louisiana.

BACKGROUND

Honey bees pollinate over 90 cultivated crops and are an essential element in the productivity achieved by American agriculture. It is estimated in a Cornell University study published in 2000, that the annual value of agricultural production attributable to honey bee pollination amounts to $14.6 billion. These include the production of such diverse crops as almonds, apples, oranges, melons, vegetables, alfalfa, soybeans, sunflower, and cotton, among others. Their increased value comes in the form of both increased yields and improved quality. In addition, honey bees are responsible for the production of an average of 200 million pounds of honey annually, the sales of which helps sustain this nation's beekeepers.

Since 1984, the survival of the honey bee has been threatened by continuing infestations of mites and pests for which appropriate controls are being developed by USDA scientists. Unfortunately, there is no simple solution to these problems. The honey bee industry is too small to support the cost of the needed research, particularly with the current depressed state of the industry. Further, there are no funds, facilities, or personnel elsewhere available in the private sector for this purpose. Accordingly, the beekeeping industry is dependent on research from public sources for the scientific answers. The key to the survival of the honey industry lies with the honey bee research program conducted by the Agricultural Research Service.

RESEARCH AT THE ARS WESLACO, TEXAS, LABORATORY

The Association recommends that the appropriation for the Weslaco laboratory be approved at not less than current levels. This will enable the laboratory to continue its work in finding a chemical solution to parasitic mites that are causing a crisis for the U.S. beekeeping and pollination industries.

Varroa mites are causing the loss of hundreds of thousands of domestic honey bee colonies annually as well as devastating wild bee colonies The only chemical which has received a general registration for varroa mite control, fluvalinate, is being rendered ineffective by the development of resistant mite populations. The USDA honey bee lab at Weslaco, Texas, has been working hard trying to find alternative chemicals to control the varroa mite. It appears that the laboratory has found a chemical, coumaphos, with the potential of being equally effective as fluvalinate. This is a real break through for the bee industry, but as of today we have only been able to obtain section 18 emergency registrations. Much work still remains to be done before a section 3 general registration is granted by EPA.

A new pest, the small hive beetle, found in Florida has caused severe bee colony losses. Apparently, it originated in South Africa. Estimates put the losses in just one season at over 30,000 colonies. There is evidence that the beetles are spreading to other areas in the East coast. As the beetles spread, they will just devastate the bee industry. In order to contain the beetle, several states have quarantined bees from Florida, North Carolina, South Carolina, and Georgia or are actively considering such quarantines. Despite these precautions, the beetle has recently spread

to California. There is a fear that its spread in California will be difficult to control because of similarity of soil conditions with those in Florida. It seems that coumaphos may help control this insect as well as the varroa mite, but as previously stated it has not received a section 3 registration and it is unclear when such a registration will be granted by EPA.

The USDA–ARS honey bee research scientists at the Weslaco laboratory have been working overtime to find chemicals, techniques, pheromones, or other methods of controlling the beetle. Time is of the essence, as a control must be found immediately as all the bee colonies in the Western Hemisphere are at risk.

Additionally, the requested appropriation will enable the Weslaco lab to continue its work in finding new and improved methods for control of other parasitic mites, such as the tracheal mite, as well as solving beekeeping problems that interfere with honey production and effective crop pollination, and determining the impact and spread of Africanized honey bees.

RESEARCH AT THE ARS BATON ROUGE, LOUISIANA, LABORATORY

The Association also recommends an increase of $500,000 in the appropriation for the ARS laboratory at Baton Rouge, Louisiana. The Baton Rouge lab is the only laboratory world-wide focusing on the development of long-term, genetic-based solutions to the varroa mite. Existing stocks of U.S. honey bees have several desirable traits but are not genetically resistant to the parasitic mites. Research scientists with the Baton Rouge laboratory have been to the far corners of the world looking for mite resistant bees. In eastern Russia, they found bees that have co-existed for decades with the mites and survived. The bees were brought to the United States and are in the process of being evaluated to assure that the resistance holds up under a wide range of environmental and beekeeping conditions. Attributes such as vigor, pollination, and honey production are being tested.

There is an immediate need to propagate the resistant queen bees in large numbers for wide scale distribution to beekeepers so that this evaluation can be accomplished. The work is slow and tedious. It is also costly. The requested appropriation will accelerate the research, development, and transfer of queen bee stock resistant to varroa mites by providing for the employment of an additional research scientist and supporting staff whose salaries are not included in the USDA budget.

SUMMARY

In conclusion, we wish to thank you again for your support of honey bee research in the past. We also would appreciate your continued support by approving an appropriation at not less than current levels for the Weslaco, Texas, lab, by adding an additional amount of $500,000 to the appropriation for the Baton Rouge bee facility, and by otherwise supporting the Administration's request for bee research. Only through research can we achieve and maintain profitability in the U.S. beekeeping industry and continue to provide stable and affordable supplies of bee pollinated crops which make up fully one-third of the U.S. diet.

I would be pleased to respond to any questions that you may have.

PREPARED STATEMENT OF THE AMERICAN HORSE PROTECTION ASSOCIATION, INC.

Dear Chairman Cochran and Members of the Subcommittee: On behalf of the American Horse Protection Association, Inc., I am writing to offer its views concerning the fiscal year 2002 appropriation for the Horse Protection Act program administered by the Animal Plant and Health Inspection Service (APHIS). AHPA is a national nonprofit humane organization devoted exclusively to equine welfare. Since the Association's incorporation in 1966, the prevention of abuse to show horses, and in particular Tennessee Walking Horses and similar gaited breeds, has been one of its principal areas of interest and concern.

The authorized appropriation for the Horse Protection Act program is a maximum of $500,000 annually, which is exceedingly low in absolute terms for a program which is responsible for enforcing the Act at approximately 500 horse shows and sales per year. As a practical matter, since Fiscal Year 1994 the effective level of Horse Protection Act program enforcement expenditures has not exceeded $400,000. At this level, APHIS is severely limited in its efforts to effectively enforce the Horse Protection Act.

AHPA recommends that the fiscal year 2002 appropriation be increased to the full $500,000 for the reasons set forth below.

In 1970, Congress enacted the Horse Protection Act (Pub. L. No. 91–570, 15 U.S.C. Sec. 1821 et seq) in response to concern for show horse abuse—particularly

among Tennessee Walking Horses. "Soring", as the abuse is commonly known, involved the infliction of pain to the horse's feet and legs to accentuate its naturally animated gait and to hasten the training process. The Act was substantially amended in 1976 to expand the kinds of conduct that were prohibited and to strengthen the Agriculture Department's enforcement capabilities (Pub. L. 94–360) directing it to detect and punish violators, either civilly or criminally.

The legislative history of the Act is clear: Congress regarded soring to be an inhumane practice which gave those trainers and owners who sore horses an unfair competitive advantage over those who safeguarded the welfare of their animals. Congress intended to eliminate soring, and believed that the competitive and financial interest of those who sore horses should not receive any recognition. Most importantly, Congress clearly mandated enforcement responsibility to the Department of Agriculture.

Historically, Congress and the Agriculture Department have recognized that there is a close relationship between soring and the kinds of "action devices" and shoes and pads that a horse wears, especially if the effects of the devices and shoes and pads are accentuated by making the animal's feet and legs painful through the application of chemical irritants or blistering agents. As a result, enforcement under the Act has focused in part on prohibiting the use of equipment and techniques that reasonably can be expected to sore a horse. APHIS field enforcement at horse shows is intended to detect horses that show evidence of being in pain prior to or after showing. In addition, APHIS personnel attend shows to monitor the performance of Designated Qualified Persons (DQPs), employees of Horse Industry Organizations (HIOs) appointed by horse show management to inspect horses for soring violations.

Last year marked the 30th anniversary of the passage of the Horse Protection Act. Yet, soring of horses remains a serious problem today. At an equine welfare forum in 1999 hosted by the American Association of Equine Practitioners and the American Veterinary Medical Association, Ron DeHaven, Deputy Administrator for APHIS, pointed out that nine of the last 10 presidents of the Walking Horse Trainers Association as well as nine of the last 16 "Trainers of the Year" have either Federal cases pending or convictions of soring. Moreover, although the Walking Horse industry often cites a 98 percent compliance rate, APHIS Veterinary Medical Officers (VMOs) write alleged violations for only the clearest, most egregious cases of soring. As a result, a very small percentage of documented cases of soring actually become the subject of USDA enforcement action. Furthermore, the informed judgment of APHIS VMOs suggests that an even larger number of horses are sored, but escape detection. Finally, at present, the number of cases being pursued by the Department of Agriculture's Office of General Counsel has dramatically dropped—without explanation.

In recent years, due to funding restrictions APHIS attendance at Walking and Racking horse shows has been at an all time low. Nevertheless, the presence of APHIS VMOs at horse shows and sales makes a big difference in detecting and deterring soring abuses. Enforcement data from at least the last five show seasons, for example, demonstrates consistently that when VMOs are present, DQPs do a better job. Disqualification rates at shows attended by VMOs are regularly two to three times as high as the rates at shows inspected by DQPs alone. This indicates clearly that DQPs are more thorough and accurate, and adhere more closely to the inspection standards required by Horse Protection Act regulations when VMOs are present. Furthermore, the presence of VMOs is a powerful deterrent: On many reported occasions, exhibitors have withdrawn their horses from shows when VMOs appear on the show grounds unannounced.

During the past few years, certain factions of the Walking Horse industry have promoted the concept of "self-regulation" under the Act, with the intent of restricting USDA's enforcement role in general. In this regard, AHPA would like to call the Subcommittee's attention to a Strategic Plan published in 1997 by USDA which, in fact, does call for a cooperative effort between the Department and horse industry organizations to improve enforcement of the Act and eliminate soring. However, it also confirms USDA's legal mandate to enforce the Act, and calls for a number of reforms, including more consistent inspection procedures, uniform rules and penalties among the HIOs, tighter conflict-of-interest prohibitions, and more funding for APHIS inspections at horse shows. It does not, in any way, call for industry self-regulation which, in and of itself, is contrary to the Act.

In addition, at least one of the HIOs, the National Horse Show Commission, has historically been antagonistic to USDA's enforcement efforts. For example, during the 1990s the Commission collected a mandatory fee of $1 per show per exhibitor per day to help support the industry's Show Horse Support Fund, a lobbying and legal defense fund. In our view, it is highly unusual and a conflict of interest for an organization—that exists to administer a DQP program so that show manage-

ment can fulfill its responsibilities under the Act—to be the instrument by which money is collected to fund industry efforts to oppose USDA enforcement. This same HIO continues a misleading effort to convince members of Congress to include language in the appropriations bill to direct APHIS to abandon its longstanding, established, and judicially affirmed practice of finding a horse to be sore if it shows a repeated, consistent pain reaction in response to digital palpation. Contrary to information that the Subcommittee may have received, an evaluation of a horse's movement and general appearance are always part of a soring examination (see 9 C.F.R. Sec. 11.21). However, gait impairments or general signs of discomfort are not necessary elements of a finding that a horse is sore. Furthermore, despite repeated assertions by the Commission, the American Association of Equine Practitioners has never adopted or endorsed the concept that a horse may be found sore only if it exhibits signs or symptoms in addition to a repeated, consistent pain reaction in response to digital palpation.

Enforcement experience under the Act has shown that USDA presence at horse shows and sales is the best and most effective way to fight soring horses. In order for APHIS personnel to do the best job possible enforcing the Horse Protection Act, as mandated by Congress, their presence at horse shows must be expanded. For these reasons, AHPA requests that the Subcommittee recommend a $500,000 Horse Protection Act program appropriation for fiscal year 2002, and resist any attempt to insert language which would limit APHIS's enforcement role, including but not limited to a prohibition of relying on digital palpations as the primary diagnostic test to determine whether a horse is sore.

Thank you for considering the Associations' views. We would be pleased to answer any questions you or your staff may have.

PREPARED STATEMENT OF THE AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM

Mr. Chairman and Members of the Subcommittee, on behalf of the American Indian Higher Education Consortium (AIHEC) and the 30 Tribal Colleges that comprise the 1994 Land grant Institutions, we thank you for this opportunity to share our funding requests for fiscal year 2002.

This statement covers two areas: a) it provides a brief background on the Tribal Colleges, and b) it outlines the 1994 Tribal College Land Grant Institutions' ambitious plan through our authorized land grant programs and the RCAP program to fulfill the agricultural potential of American Indian communities and to ensure that American Indians have the skills needed to maximize the economic development potential of our resources. Before providing this information, immediately following is a summary of our fiscal year 2002 requests.

SUMMARY OF REQUESTS

We respectfully recommend the following funding levels for fiscal year 2002 for our on-going land grant programs. Specifically, we request: $5 million for the 1994 institutions' extension grants program; $12 million for the Native American endowment fund; $3 million for the higher education equity grants; and $3 million for the 1994 institutions' research program.

In addition, we request $5 million be set aside out of the Native American—Rural Community Advancement Program, for the 1994 Tribal College Land Grant Institutions to address the critical facilities and infrastructure needs at the colleges that impede our ability to participate fully as land grant partners.

BACKGROUND ON TRIBAL COLLEGES

Today, almost 140 years after enactment of the first land grant legislation, Tribal Colleges, more than any other institutions, truly exemplify the original intent of the land grant legislation. The first Morrill Act was enacted in 1862 specifically to bring education to the people and to serve their fundamental needs. The Tribal Colleges fit this definition well, as they are community-based institutions.

The Tribal College Movement was launched in 1968 with the establishment of Navajo Community College, now Diné College, in Tsaile, Arizona. A succession of Tribal Colleges soon followed, primarily in the Northern Plains region. In 1972, the first six tribally controlled colleges established the American Indian Higher Education Consortium to provide a support network for member institutions. Today, AIHEC represents 32 Tribal Colleges and Universities located in 12 states, begun specifically to serve the higher education needs of American Indian students. Collectively, they serve American Indian students from over 250 federally recognized tribes.

Tribal Colleges offer primarily two-year degrees, although in recent years some institutions have begun to offer baccalaureate and graduate-level degrees. The vast majority of the Tribal Colleges are fully accredited by independent, regional accreditation agencies.[1] Tribal Colleges serve as community centers, providing libraries, tribal archives, career centers, economic development and business centers, public meeting places, and child care centers. Despite our many obligations, functions, and notable achievements, Tribal Colleges remain the most poorly funded institutions of higher education in this country. Most of the 1994 Institutions are located on Federal trust territory; states have no obligation and in most cases, do not fund the Tribal Colleges. In fact, most states do not even fund our institutions for the non-Indian state resident students who attend our colleges despite the fact that non-Indian enrollment at the Tribal Colleges averages 20 percent.

Today, one in five American Indians live on reservations. As a result of two hundred years of Federal Indian policy—including policies of termination, assimilation and relocation—many reservation residents live in abject poverty comparable to poverty found in Third World nations. Through the efforts of Tribal Colleges, American Indian communities receiving services they need to reestablish themselves as responsible, productive, and self-reliant citizens. It would be tragic not to expand the modest investment in, and capitalize on, the human resources that will help open new avenues of economic development, specifically through enhancing the Tribal Colleges land grant programs, and adequate access to information technology.

1994 LAND GRANT PROGRAMS-AMBITIOUS EFFORTS TO REACH ECONOMIC DEVELOPMENT POTENTIAL

Tragically, due to lack of expertise and training, millions of acres on our reservations lie fallow, under-used, or have been developed through methods that render the resources non-renewable. The Equity in Educational Land Grant Status Act of 1994 is our hope for turning this situation around. Our current land grant programs are modest, yet vitally important to us. It is essential that American Indians learn more about new and evolving technologies for managing our lands. We are committed to becoming, as we were when your forefathers came to this land centuries ago, productive contributors to the agricultural base of the nation and the world.

Extension Program.—As 1994 Land Grant Institutions enter into partnerships with 1862 Institutions through extension projects, recent years show impressive efforts to address economic development through land use. Our extension program illustrates an ideal combination of Federal resources and Tribal college-state institution expertise, with the overall impact being far greater than the sum of its parts. These programs have grown substantially in idea and scope since they were initially implemented in fiscal year 1996. The current single year competitive grants for what have developed into flourishing multiyear projects is no longer an effective or efficient way to administer these vital programs. A mechanism for multiyear funding needs to be explored to give these programs financial stability. Some examples of the innovative programs that are funded through annual competitively awarded grants include:

—United Tribes Technical College and North Dakota State University Extension Service are collaborating to provide diabetes prevention education to Native Americans through nutrition education. Diabetes and its complications have spread epidemically throughout Indian Country. Through nutrition, health, and wellness education programs, which are culturally appropriate and community supported, program participants will have a greater understanding of their role in how to control and even prevent this disease.

—Northwest Indian College in conjunction with Washington State University has launched a tribal grants program aimed at increasing the capacity to address issues such as natural resources restoration and utilization, tribal agricultural projects, air and water quality, food and nutrition, and projects focused on gaining tribal youth participation. The program works with individuals and leaders of Washington and Idaho tribes and will serve the American Indian families, tribal economics, and whole communities. It will also expand to develop ties with the University of Idaho, University of Alaska, and the Oregon State University extension programs.

[1] The Tribal Colleges and Universities are accredited by regional accreditation agencies and must undergo stringent performance review on a periodic basis. The higher education division of the respective regional accreditation agency accredits twenty-seven of the TCUs. Two new TCUs are at the Pre-candidate stage as they complete work to attain Candidate status; one TCU is at Candidate status. Two TCUs are accredited as "Vocational/Adult Schools by the "schools" division of the respective regional accreditation agency.

In fiscal year 2001, the 1994 institutions were awarded $3,280,000 for extension grants. Additional funding is needed to supplement these programs designed to address the inadequate extension services provided on reservations by the states. It is important to note that this program is specifically designed to complement and build upon the Indian Reservation Extension Agent program and is not duplicative of ongoing extension activities.

For the reasons outlined above, we request Congress support this vital program by appropriating funding at the authorized level of $5 million and include report language that would open the door to multiyear funding to encourage the growth and further success of these essential programs.

Native American Endowment Fund.—The endowment installments paid into the 1994 Tribal College Land Grants Institutions account remain with the U.S. Treasury only the interest is distributed to our colleges. It is important to note that these funds are not scored as current budget outlay or authority. The latest annual interest payment distributed among all 30 of the 1994 Land Grant Institutions totaled $1,141,821.

Just as other land grant institutions historically received large grants of land or endowments in lieu of land, this sum assists 1994 Land Grant Institutions in establishing and strengthening our academic programs in such areas as curricula development, faculty preparation, instruction delivery, and to address critical infrastructure issues. As earlier stated, Tribal Colleges often serve as primary community centers. Although conditions at some have improved substantially, many of the colleges still operate under deplorable conditions. In order for the 1994 Institutions to become full partners in this nation's great land grant system, we need and deserve the facilities and infrastructure necessary to engage in education and research programs vital to the future health and well-being of our reservation communities. We respectfully request Congress build upon this much-needed base fund by increasing the fiscal year 2002 endowment fund payment to $12 million.

1994 Institutions' Educational Equity Grant Program.—Closely linked with the endowment fund, this program has provided almost $52,000 per 1994 Institution to assist in academic programs. Through the modest appropriations made available since fiscal year 1996, the Tribal Colleges have been able to begin to support vital courses and planning activities specifically targeted to meet the unique needs of our respective reservations. Some examples include:

—Sisseton Wahpeton Community College in Sisseton, South Dakota, has leveraged the equity grant funds with funding from the 1994 Institutions' endowment program to remodel the college kitchen for the development of a food service operation/food safety laboratory and curriculum. The goal of the program is to prepare students to run a modern food service operation including receiving, storing, preparing, cooking, holding, and serving foods. Attention to food safety, including prevention of food borne illness, is a top priority of the program. This project is designed to work in cooperation with the Sisseton Wahpeton Sioux Tribe Indian Health Hospital.

—Fort Peck Community College in Poplar, Montana, is building on its delivery system for instructional programs in food and agricultural sciences designed to meet the technological and social demands of modern living in rural Montana. Through collaboration with current USDA programs and agencies, Fort Peck Community College is focusing on the production, marketing, and distribution of locally produced agricultural commodities; enhanced rural development using distance education technology; and family and consumer sciences through Native customs, values, and traditions.

Other Tribal Colleges have started courses and programs in natural resource management, environmental sciences, horticulture, forestry, nutrition, and buffalo production and management. We respectfully request the Subcommittee expand this program by increasing the funding to $3 million, to allow the colleges to build upon the courses and activities that the initial funding launched.

1994 Research Program.—We are requesting increased funding for our research program, which was authorized in the Agriculture Research, Extension, and Education Reform Act of 1998, at "such sums as necessary." We recognize the budget constraints that Congress is working under. However, we feel the current $1 million is simply not adequate, with 30 institutions competing for these research dollars. This research program is vital to ensuring that Tribal Colleges finally become full partners in the nation's land grant system. Many of our institutions are currently conducting agriculture based applied research, yet finding the resources to conduct this research to meet their communities' needs is a constant challenge. This research authority opens the door to new funding opportunities to maintain and expand the research projects begun at the 1994 Institutions. The following is a prime example of the first projects to be funded under this new program.

—Turtle Mountain Community College in Belcourt, ND, in partnership with North Dakota State University, has launched a project to assess the risk of mosquito-borne Western equine encephalomyelitis (WEE) infection to horses and humans on the Turtle Mountain Chippewa Reservation (TMCR). Through collection and examination of both adult and larvae vector mosquitoes from throughout the reservation, this research will determine the spatial distribution and the proportion of WEE vector species on the TMCR that is infected with the virus. The results will be published in the Journal of Medical Entomology.

Other projects include soil and water quality projects, amphibian propagation, pesticide and wildlife research, range cattle species enhancement, and native plant preservation for medicinal and economic purposes. We urge the subcommittee to fund this program at $3 million to enable our institutions to develop and strengthen their research potential.

Rural Community Advancement Program (RCAP).—In fiscal year 2001, $24 million of the RCAP funds were appropriated for loans and grants to benefit Federally recognized Native American Tribes. Report language declared that the conference committee expected $4 million be made available for community facility grants for Tribal College improvements. As stated earlier, the facilities at many the 1994 Land Grant Institutions are in desperate need of repair and in many cases replacement. We urge the Subcommittee to designate $5 million of the Native American RCAP funds to address the critical need for improving the facilities at the 30 Tribal College Land Grant Institutions. Additionally, we respectfully request report language directing the Department of Agriculture to set aside $5 million of this RCAP program funds for each of the next five fiscal years to allow our institutions the means to solidly address our facilities needs.

CONCLUSION

The 1994 Land Grant Institutions have proven to be efficient and effective tools for bringing education opportunities to American Indians and hope for self-sufficiency to some of this nation's poorest regions. The modest Federal investment in the Tribal Colleges has already paid great dividends in terms of employment, education, and economic development, and continuation of this investment makes sound moral and fiscal sense. American Indian reservation communities are second to none in their need for land grant programs and no institutions better exemplify the original intent of the land grant concept than the Tribal College Land Grant Institutions.

We appreciate your long-standing support of the Tribal Colleges and Universities and are grateful for your commitment to making our communities self-sufficient. We look forward to continuing our partnership with you, the U.S. Department of Agriculture, and the other members of the nation's land grant system-a partnership that will bring equal educational, agricultural, and economic opportunities to Indian Country.

Thank you for this opportunity to present our funding requests before this Subcommittee. We respectfully request your continued support and full consideration of our fiscal year 2002 appropriations requests.

PREPARED STATEMENT OF THE AMERICAN PHYTOPATHOLOGICAL SOCIETY

The American Phytopathological Society (APS) appreciates the opportunity to provide the Subcommittee with our recommendations for fiscal year 2002 appropriations for essential research programs administered by the U.S. Department of Agriculture (USDA). The APS represents more than 5,000 scientists and practitioners of plant pathology. The APS promotes the health of plants and their products in sustainable agricultural, landscape, and forest ecosystems through environmentally sound and cost-effective approaches to assure a safe, abundant, and reliable supply of food, feed, and fiber.

For the fiscal year 2002 agricultural appropriations bill, our top priorities are to increase funding for the USDA National Research Initiative (NRI) by 15 percent and, more specifically, to increase funding by $5 million for microbial genomics, especially genomics of microbial pathogens, within the NRI and within the Agricultural Research Service (ARS). The NRI provides critical support to individual investigators for basic, fundamental research. In addition to our top priorities, we urge the Subcommittee to maintain the $120 million in funding for the Initiative for Future Agriculture and Food Systems (IFAFS) as the IFAFS program provides support for microbial genomics as well. The IFAFS focuses on providing support to multi-institutional, multidisciplinary research. The NRI and the USDA microbial genomics programs are essential to plant disease management in the future.

The NRI has been the primary source of Federal funds awarded competitively for research on plant diseases and their management since its formation in 1991 as the flagship competitive grants program of the USDA. Within the USDA, the NRI is particularly valuable and unique as it supports research focused on the fundamental understanding of plant diseases that serves as the foundation for applied research for plant disease management. The ability of the NRI to support this fundamental work is in jeopardy as the costs of modern-day research in the biological sciences has skyrocketed in recent years and funding for the NRI has not kept pace with these costs. While funding for research has increased significantly over the past 10 years and in some cases has doubled during that period, funding for the NRI has remained essentially flat and, for fiscal year 2001, funding was reduced by $14 million, with much of this decrease occurring in the plant sciences. A report released by the National Academy of Sciences in 2000 again recommends that funding for the NRI be increased to the level authorized in 1991, which is five times its current level of $106 million. Because of the reduced funding for plant sciences, the NRI was unable to support critical genomics research.

The NRI has supported many significant scientific and technical breakthroughs. Some of the accomplishments funded by the NRI include:

—The first cloning of a plant gene responsible for recognition and rejection of a microbial plant pathogen by the pant and now known to be one of a family of genes with counterparts responsible for recognition and rejection of infectious microbial agents by certain human and animal tissues;

—Identification of the harpin protein responsible for a generic resistance response in plants and approved in 2001 by the EPA as a natural plant-pathogen product now being sold under the trade name "Messenger"; and

—Discovery of a gene expressed uniquely in roots and responsible for the widespread susceptibility of plants to root knot nematodes that is now providing us with an entirely new method of developing crop plants with genetic resistance to these pests.

In spite of these and other accomplishments, we are deeply concerned that because of flat funding, our discipline, so critical to assuring a safe and secure food supply, is being left behind both by the fast-pace of change in agriculture and the revolution in the biological sciences. New plant disease problems continue to emerge while the older problems continue to threaten the efficiency and productivity of American farms or keep our farmers locked into the use of pesticides.

Genomics has opened entirely new vistas for improvements in human, animal, and plant health. Plant pathology is poised along with our contemporaries in the medical and veterinary fields to take advantage of the new information on sequences of genomes. However, still missing in this explosion of information on genome sequences is information on the sequences of genomes of our most important plant pathogens. Of some 100 microbial genomes (other than viruses) that have been sequenced now, only one plant pathogen, a bacterial pathogen of citrus, has been completely sequenced, and this work was done in Brazil. Because of the small size of most microbial genomes, sequencing can be done inexpensively and quickly. With $5 million devoted to the sequencing of microbial genomes and, particularly, to plant pathogens, we could begin to revolutionize plant pathology. Once we have the sequences of the most important plant pathogens, it will advance significantly our efforts to discern the function of the genes (i.e., functional genomics).

The availability of information on both genome sequences and the function of genes for a select and representative list of plant pathogens would open entirely new approaches to understanding, managing, and even predicting plant disease outbreaks and epidemics just as is now happening for medicine. Such information can also improve diagnostics in cases where phytosanitary laws are used as trade barriers and help authorities track down any bioterrorist release of a notorious plant pathogen. The APS is in the process now of prioritizing the plant pathogens for which sequences are needed. Our goal is to select those pathogens that would be representative of all plant pathogens from a practical and scientific standpoint.

We recognize that the National Science Foundation, the Department of Energy, and the National Institutes of Health are investing in microbial genomics. We appreciate, greatly, the support from these agencies. However, the focus of the microbial programs in the other agencies is not on agriculturally important plant pathogens. We believe that the USDA can and should play a leading role in microbial genomics, especially as it relates to plant pathogens.

We, strongly, urge you to include $5 million for microbial genomics and a 15 percent increase for the NRI in the fiscal year 2002 agricultural appropriations bill. These programs will assist in our effort to maintain healthy plants so that we have a safe and secure food supply.

Thank you for this opportunity to present our views.

PREPARED STATEMENT OF THE AMERICAN RIVERS

American Rivers is joined by over 500 local, regional and national conservation organizations[1] from all 50 states in calling for $325 million in funding for the Environmental Quality Incentives Program and in supporting an expansion two important conservation programs administered by the U.S. Department of Agriculture. Specifically, we support increasing the acreage limits of the Conservation Reserve Program to 40 million acres, and eliminating the acreage limit in the Wetlands Reserve Program and enrolling 250,000 acres yearly, beginning in fiscal year 2002.

The Environmental Quality Incentives Program (EQIP) is a voluntary program that helps farmers and ranchers facing threats to soil, water, and other natural resources develop and implement successful conservation practices. The Conservation Reserve Program is a voluntary program that partners the U.S. Department of Agriculture (USDA) with farmers and ranchers, helps protect millions of acres of the nation's agricultural lands from erosion while increasing wildlife habitat and protecting ground and surface waters. The Wetlands Reserve Program is a voluntary program that protects and restores the nation's wetlands, bring tangible economic and environmental benefits to rural communities.

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

The health of America's agricultural lands is fundamental to the nation's well being. These lands support an industry of great value, provide important habitat for a large portion of the nation's birds, fish, and wildlife, and significantly affect river health. The Environmental Quality Incentives Program (EQIP) is voluntary program that helps farmers and ranchers facing threats to soil, water, and other natural resources develop and implement successful conservation practices.

EQIP focuses largely on lands that face significant natural resource problems or are particularly environmentally sensitive. As these priority areas are identified locally, conservation districts convene working groups of key Federal, State, and local agency representatives to propose conservation plans for these areas. Communities play a significant role in the planning process, ensuring that the plans fully reflect local needs and priorities. Once Natural Resource Conservation Service (NRCS) representatives select conservation plans, EQIP staff provide technical, educational, and financial assistance to farmers or ranchers to help them implement management plans for nutrients, manure, pests, irrigation, water, and wildlife habitat practices. Farmers may also apply for 5- to 10-year EQIP contracts that provide financial incentives and cost-sharing assistance to implement conservation practices outlined in the conservation plan required for use of most agricultural lands.

CONSERVATION RESERVE PROGRAM

With the dust bowl of the 1930's, the United States learned the hard way about the destructiveness of agricultural erosion. In the years since, the nation has also come to recognize the damage caused by runoff that carries pollutants into river, lakes, and other bodies of water.

One of the Federal government's largest and most effective environmental improvement programs grew out of concern about the impacts of agricultural soil erosion and polluted runoff. The Conservation Reserve Program (CRP), a voluntary program that partners the USDA with farmers and ranchers, helps protect millions of acres of the nation's agricultural lands from erosion while increasing wildlife habitat and protecting ground and surface waters. The program provides incentives for farmers and ranchers to voluntarily implement long-term conservation practices on erodible and environmentally sensitive lands in return for annual rental payments and cost-share assistance.

The benefits of CRP are clear. The total acreage of new wildlife habitat created by the program is twice that of the National Wildlife Refuge System and all state-owned wildlife areas in the contiguous 48 states combined. According to NRCS, each acre enrolled in CRP reduced topsoil erosion by an average of 19 tons per year, improving water quality in lakes, rivers and other water bodies. USDA estimates show that, over the life of the initial 36.4 million-acre enrollment, CRP will have resulted in a $2.1–$6.3 bilion increase in net farm income, $3.3 billion in future timber resources, and up to $4.2 billion in surface water quality improvements. The Fish and Wildlife Service estimates that the wildlife benefits will total $1.4 billion for water

[1] These groups have endorsed "The River Budget 2002", a report of national funding priorities for local river conservation. A list of groups endorsing the River Budget can be viewed at www.americanrivers.org.

fowl hunting and $4.1 billion for non-consumptive wildlife benefits such as photography and wildlife watching.

WETLANDS RESERVE PROGRAM

Wetlands are a critical component of many ecosystems, providing myriad of benefits for people and wildlife. They filter sediments and pollutants from runoff water, protect water quality, provide critical habitat for millions of birds and other wildlife, absorb water to reduce floods, and improve soil moisture for vegetation. The economic benefits of healthy wetlands are many, including improving wildlife watching and photography. In 1991, almost 109 million people spent $59 billion on fishing, hunting, and wildlife watching and photography.

The Wetlands Reserve Program (WRP) is a volunteer program aimed at protecting and restoring the nation's wetlands, bringing tangible economic and environmental benefits to rural communities, recreationists, landowners and family farmers nationwide. Participating landowners receive technical and financial assistance from the NRCS to restore wetlands, including marginal agricultural land. In exchange for selling a conservation easement or entering into a cost-share restoration agreement, landowners receive all or a percentage of restoration costs and/or an annual payment. The program currently has more than 5,230 contracts in 48 states. Participating landowners retain control over access to their lands and may lease them for undeveloped recreational activities and other uses that are fully consistent with wetland protection and enhancement. Wetlands restored by WRP also help reduce the "dead zone" in the Gulf of Mexico by intercepting polluted runoff from farms and city streets along the Mississippi River.

FARM CONSERVATION PROGRAMS: PROTECTING AMERICA'S WATER QUALITY

Water quality is an issue that touches many lives. Each year, sediment and nutrients are inadvertently washed off the landscape, into feeder streams, and ultimately into our nation's rivers—reducing farm income, increasing channel maintenance costs, threatening drinking water supplies and filling side channels used by river wildlife. The costs associated with sediment and nutrient loss are enormous. On the Mississippi River, for example, farmers annually lose more than $300 million in applied nitrogen, dredging costs annually top $100 million, and habitat preservation efforts on the Upper Mississippi River will soon reach $33 million a year.

Fertilizers, animal waste, and inadequately treated human waste have contributed to high levels of nutrients—nitrogen and phosphorus. Once they are released into the Mississippi, these nutrients ignite a chemical chain reaction that reduces the amount of oxygen dissolved in the water, limiting the types of river species that can survive. They also contribute to a "dead zone" in the Gulf of Mexico—a 7,000 square-mile zone where dissolved oxygen is simply too low to support marine life. In rare cases, nutrients like nitrogen and bacteria from human and animal waste can contaminate well-water and other drinking water supplies, affecting human health.

Like nitrogen and phosphorous, sediment continues to enter the Upper Mississippi River at unsustainable levels—that is, sediment enters the Mississippi a rate that exceeds the river's ability to move sediment downstream. In addition to filling side channels, burying mussel beds and blocking the sunlight needed by aquatic plants, this imbalance increases the cost of removing sediment from the navigation channel—a Federal responsibility which now costs more than $100 million annually.

Much of this sediment is the result of historic farm practices that have left large sediment deposits in small feeder streams. While great strides have been made in improving agriculture practices to reduce erosion and run-off, limited resources for these efforts limits the scope and effectiveness of conservation efforts by farmers.

Although many landowners—both in the Upper Mississippi River basin and across the country—are anxious to enroll their land into easement programs, create buffers of trees and grasses along streams, or adopt soil-conserving tillage practices, demand for Federal technical assistance far exceeds supply. Funding for conservation programs, outreach and education, and research and monitoring must be increased to meet the demand for programs like EQIP and CRP.

American Rivers is strongly supportive of these successful programs and the tremendous efforts of the American farmer to protect water quality. We strongly urge you to appropriate $325 million to the U.S. Department of Agriculture for the Environmental Quality Incentives Program and to provide sufficient funding to supporting an expansion of the Conservation Reserve Program acreage limits to 40 million acres and the Wetlands Reserve Program to 250,000 acres in fiscal year 2002.

PREPARED STATEMENT OF THE AMERICAN SEED TRADE ASSOCIATION, INC.

Mr. Chairman and members of the Subcommittee, thank you for this opportunity to provide you with our views on the fiscal year 2002 agricultural appropriations bill. The American Seed Trade Association (ASTA) appreciates greatly your leadership in supporting the USDA National Plant Germplasm System (NPGS). We, strongly, urge you to include a $10 million increase for the NPGS in the fiscal year 2002 agricultural appropriations bill.

The ASTA, founded in 1883, is one of the oldest trade associations in the United States. With over 900 members, the ASTA is the premiere advocate for the seed industry and related interests. Our diverse membership consists of the leading companies that are developing, providing, supporting, and promoting new varieties that hold tremendous promise and opportunity for farmers and consumers everywhere.

Our request for a $10 million increase for the NPGS is the number one appropriations issue and the number one legislative issue for ASTA. This increase will allow seed companies to meet the diverse challenges facing our customers. Support for significant increases to the NPGS goes well beyond industry; we, also, have the support of our customers and the scientific community. Earlier this month, the following organizations joined in our request for a $10 million increase for the NPGS, the: Alaska Division of Agriculture; American Association of Botanical Gardens and Arboreta; American Malting Barley Association; American Nursery & Landscape Association; American Society for Horticultural Science; American Society of Agronomy; American Society of Plant Physiologists; American Soybean Association; American Sugar Cane League of the USA; Association of Official Seed Certifying Agencies; Beet Sugar Development Foundation; Busch Agricultural Resources, Inc.; Crop Science Society of America; Florida, Texas, and Hawaii Sugar Cane Growers National Association of State Universities & Land-Grant Colleges; National Association of Wheat Growers; National Barley Growers Association; National Barley Improvement Committee; National Campaign for Sustainable Agriculture; National Corn Growers Association; National Cotton Council; National Council for Science and the Environment; National Farmers Union; National Grain Sorghum Producers; National Sunflower Association Pickle Packers International, Inc.; Society of American Florists; Soil Science Society of America; Sonoma County Grape Growers Association; Southwest Peanut Growers Association; Turfgrass Breeders Association; USA Rice Federation; U.S. Beet Sugar Association, and The U.S. Rice Producers Association.

The Agricultural Research Service (ARS) has recognized the need for significant increases in funding for the NPGS, as well. The ARS requested an increase of $20 million for fiscal year 2001 and again for fiscal year 2002. We are disappointed that the Administration's proposed budget failed to provide an increase for the NPGS and reduced funding for the Arctic germplasm collection in Palmer, Alaska.

As you know, narrow genetic bases can result in widespread crop losses. In 1970, Southern corn leaf blight cost farmers 15 percent of the corn crop; in the 1950s and early 1960s, about 70 percent of the wheat crop in the Pacific Northwest was wiped out by stripe rust; and the Irish potato famine of the 1840s was the result of the reliance on only a single variety of the potato. To prevent catastrophic losses, breeders must have open access to extensive, well-maintained, and well-documented genetic resources.

The NPGS germplasm collections underpin crop-breeding efforts throughout the U.S. Preservation of and filling gaps in the base collections is a unique Federal responsibility. The NPGS acquires germplasm; develops and documents information on the germplasm; preserves and distributes germplasm; and maintains quarantine facilities for testing imported germplasm for pests and pathogens before introduction in the U.S. The NPGS ensures that scientists and plant breeders have access to diverse germplasm to develop varieties that meet new and changing circumstances.

Preserving the genetic diversity of plants is essential to the future of agriculture as the genes to add new traits, such as tolerance to diseases and resistance to insects, are often present in wild relatives of the major crops. Most of the U.S. crops raised and used for food, fiber, ornamentals, and industrial feedstocks originated from outside of the U.S. Consequently, the plant breeding community is highly dependent upon germplasm from other countries, some of which is endangered. Once lost, the germplasm cannot be fully reconstructed.

Unless we have a wide diversity of genetic resources, there will be nothing available to improve plants or to prevent plants from becoming genetically susceptible to pests, pathogens, and abiotic stress. With sufficient genetic resources, we will have an abundant, safe, nutritious, and affordable supply of food and fiber that is produced in an environmentally friendly manner and that ensures a reasonable return for our farmers and livestock producers. American agriculture can provide as

well renewable resources for a wide range of everyday consumer products if diverse genetic resources are available and accessible to U.S. scientists and plant breeders.

To ensure that these genetic resources are accessible and that they remain available, the NPGS must obtain a significant increase in funding. In 1991, the NPGS reported that an annual budget of $40 million would be required to remedy shortfalls in secure storage, backup, evaluation, and development of core germplasm collections. Today, funding for the NPGS remains below $30 million. We recognize the tight budget constraints under which the Subcommittee must operate; however, the following outlines the precarious situation of the NPGS:

—Funding for the NPGS has declined significantly, in constant dollars, since 1992, jeopardizing vital germplasm;
—Lack of funding has resulted in decreased supplies of germplasm that limits distribution and impedes the progress of research and breeding programs;
—93 percent of all clonally-propagated samples and 19 percent of all seed samples are not duplicated and are at high risk of catastrophic loss;
—No backup has been made for citrus and nearly all tropical fruit crops in the NPGS due to the lack of funds to develop effective storage methods;
—Without a significant infusion of funds, many of the clonally-propagated crops in the collection will remain at risk of catastrophic loss as long-term backup methods for these crops have not been developed;
—Internationally, destruction of natural habitats, limited gene bank capacity, inadequate management, and lack of consistent funding has left much of the world's germplasm at high risk of loss;
—Acquisition of endangered germplasm has slowed and may stop completely without an increase in funding;
—Due to funding constraints, the Plant Germplasm Quarantine Office established quotas for importing germplasm thereby restricting the amount of materials available to U.S. scientists and plant breeders;
—Funding is insufficient for the Quarantine Office to take full advantage of molecular diagnostic techniques;
—99 percent of the germplasm accessions at Griffin, GA, and 68 percent of the accessions at Pullman, WA, have not been tested for viability within the past 10 years due to lack of funding;
—At least 30 percent of all NPGS accessions need to be regenerated during the next couple of years and with current funding it will take at least 9 years;
—18 percent of NPGS accessions are unavailable for distribution primarily due to lack of funding; and
—Without an increase in funding, many NPGS sites will be unable to pay for utilities, general operations, and facility repairs.

To fulfill its mission to provide access to diverse genetic resources, the NPGS must have a balanced program that includes (1) acquisition of germplasm to fill gaps in the collections and to preserve endangered germplasm; (2) maintenance and preservation of germplasm with secure backups to prevent loss; (3) adequate documentation and characterization of the germplasm; (4) sufficient supplies of viable seeds to allow for distribution; and (5) quarantine facilities that make germplasm available in a timely manner. The steady decline in available funding has had an extremely negative impact on the ability of the NPGS to have a balanced program.

Inadequate funding is jeopardizing the security of the U.S. food and fiber system. Genetic diversity is the engine that drives plant breeding. Without new sources of genetic variation, plant breeders cannot make improvements. Without improvements, we will be unable to ensure the continued economic viability and security of our food and fiber system.

The NPGS is a fundamental, strategic resource that we cannot afford to jeopardize. Without a significant infusion of funds, the NPGS will not be able to ensure the preservation of important germplasm that is vital to our existence and prosperity. Our ability to provide breeders with the blueprints and genetic codes is necessary to ensure new, plentiful foods, fibers, consumer products, and drugs. If the NPGS is not funded at a sufficient level, biodiversity will be reduced and we could lose the very germplasm needed for a possible wonder drug or the cure for some dreaded disease. The NPGS is a good investment for taxpayers and for the American consumer.

We, strongly, urge you to provide an increase of $10 million for the NPGS for fiscal year 2002. We recognize that this will be difficult and that there are many competing priorities for limited resources; however, we cannot afford to be complacent about the fundamental resources that underpin our future for food and fiber.

Thank you for the opportunity to present our views on the importance of the USDA National Plant Germplasm System. We look forward to working with you to

ensure that the NPGS is able to provide the germplasm necessary for U.S. agriculture to meet the demands and challenges of the 21st Century.

PREPARED STATEMENT OF THE AMERICAN SHEEP INDUSTRY ASSOCIATION

The American Sheep Industry Association (ASI) is a federation of state member associations representing the nearly 67,000 sheep producers in the United States. The sheep industry views numerous agencies and programs of the U.S. Department of Agriculture as important to lamb and wool production. Sheep industry priorities include rebuilding and strengthening our infrastructure, critical predator control activities, maintaining and expanding research capabilities and animal health efforts.

The rapid changes that have occurred in the domestic sheep industry and continue to take place put further emphasis on the importance of adequately funding the U.S. Department of Agriculture programs important to lamb and wool producers.

We appreciate this opportunity to comment on those portions of the USDA fiscal year 2002 budget.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE (APHIS)

The mission of APHIS, "to protect U.S. animal and plant resources from diseases and pests," is very important to the sheep industry of the nation.

Wildlife Services Wildlife Services

With well over one-quarter million sheep and lambs lost to predators each year, the Wildlife Services (WS) program of USDA–APHIS is vital to the economic survival of the sheep industry. The value of sheep and lambs lost to predators and predator control expenses are second only to feed costs for sheep production. Costs associated with depredation currently exceed our industry's veterinary, labor and transportation costs.

The American Sheep Industry Association strongly supports the President's salary increase recommendations of $1.26 million for WS operations and $454,000 for methods development. For a number of years, salary cost increases have been mandated without offsetting appropriations. In Fiscal Year 2000 for example, Congress mandated $849,000 for pay cost increases. These funds had to come out of the operations budget, meaning less available money for the field work.

Method development has also been overlooked for a number of years. Since fiscal year 1989, the NWRC operations budget increased from $2.02 million to $2.89 million in fisca year 2000. During the same period of time, method development has been given a number of new Congressional directives including aquaculture research, wildlife disease research, ungulate research and the reopening of three field offices in Hawaii, Washington and Mississippi. To add to the budget strain of NWRC operations is a new multi-million dollar research facility with no monies to staff and maintain the building. Maintenance cost for this facility now approach $1.5 million annually. ASI requests that the current method development budget be increased an additional $6.0 million to $17.46 million. We also request that of this $6.0 million, $2.5 million go to staffing, operating and maintaining existing facilities, $1.0 million for bird, rodent and ungulate research, and $2.5 million for alternative capture systems and canine research.

Aerial hunting is one of Wildlife Service's most efficient and cost-effective core programs. It is used not only to protect livestock, wildlife and endangered species, but is a critical component of the Wildlife Services rabies control program. A lack of adequate finding for safety purposes was found to have contributed to a number of accidents experienced within the WS program in recent years. Following an independent review of the WS aerial program, recommendations were provided the Department to improve aerial safety. A December 2002 deadline was set by the Department to implement these recommendations. ASI requests $2.9 million in additional finding be provided WS so the agency can complete the implementation of the safety recommendation.

Expanding wolf populations in Montana, Idaho, Wyoming, Minnesota, Wisconsin and Michigan continue to create increased demand for assistance in managing wolf depredation. While resources have been provided Montana, Idaho and Wyoming, $750,000 in additional funding is still needed in Minnesota, Wisconsin and Michigan to manage a wolf population approaching 3,000 animals.

Wildlife Service's cooperative nature has made it the most cost effective and efficient program within federal government in the areas of wildlife management and public health and safety. Wildlife Services has over 2,000 cooperative agreements with agriculture, forestry groups, private industry, state game and fish depart-

ments, departments of health, schools, county and local governments and others to mitigate the damage and danger that the public's wildlife can inflict on private property and public health and safety. WS is one of the few federal programs that has been consistently at or above the 50:50 federal to cooperative funding ratios. In fiscal year 2000, $36,434,699 in cooperator dollars went to Wildlife Services. The agency, however, only had $21,275,873 in finding available at the field level in Fiscal Year 2000 to match the funding provided by WS cooperators. Another $2.2 million is needed to meet increasing customer demand for the agency's services.

Wildlife Services must document its operations in order to conduct program analysis and comply with Federal reporting requirements. The agency's current information technology support system has become antiquated which could result in incomplete data collection and analysis. To update and maintain the information system, an additional $700,000 is needed.

Scrapie

Adequate funding for scrapie eradication and other supportive efforts, such as the Voluntary Scrapie Flock Certification Program and the National Scrapie Slaughter Surveillance Study are of critical importance to the sheep industry, as well as all segments of the livestock industries. The national regulation for scrapie eradication to be issued by USDA in 2001 is supported with the Administration's budget request of $18 million for fiscal year 2002 which is strongly supported by ASI. ASI appreciates this Subcommittee's efforts in recognizing the seriousness of this devastating disease and the real need for control and eradication. ASI and others have urged APHIS to step up its efforts in scrapie control/eradication through a more aggressive regulatory approach. APHIS has received published and received comments on both an ANPR and a Proposed Rule over the past three years; we expect the publication of a Final rule to begin eradicating scrapie through interstate movement restrictions soon. According to APHIS, an aggressively funded scrapie eradication effort will take seven to ten years and cost approximately $100 million over the life of the program. As it has been with all disease eradication programs, scrapie eradication will take adequate funding in order to be successfull. Through the successful section 201 trade action this past year, USDA/APHIS has received sufficient CCC funding to begin the eradication program and the surveillance study. At this critical point in time, it is important that funds be APPROPRIATED to conduct the "base program" activities such as hiring Veterinary field personnel so that the federal program will be implemented uniformly State to State and enforced properly. We therefore urge the subcommittee to support the Administration's request for an $18 million increase for Scrapie eradication in appropriated funds.

AGRICULTURAL MARKETING SERVICE

Lamb Market Information and Price Discovery Systems

The sheep industry strongly supports the fiscal year 2002 budget for Market News of USDA-Agricultural Marketing Service. Furthermore ASI supports necessary increases in appropriations for the full implementation of the mandatory price reporting system for livestock.

FOREIGN AGRICULTURAL SERVICE (FAS)

The sheep industry participates in FAS programs such as the Market Access Program (MAP) and the Foreign Market Development Program. ASI strongly supports continued appropriations at the current level for these critical Foreign Agricultural Service programs. ASI is the cooperator for American wool and sheep pelts and has achieved solid success in increasing exports of domestic product. Exports of American wool have been increased dramatically with approximately 30 percent of U.S. production competing overseas.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

ASI urges increased appropriations for the range programs of the Soil Conservation Service to benefit the private range and pasture lands of the United States with conservation assistance. We support the budget item and recommend an increased level for the Grazing Lands Conservation Initiative, which ASI has worked with, along with other livestock and range management organizations, to address this important effort for rangelands in the U.S.

RESEARCH, EDUCATION AND ECONOMICS

As a result of the successful section 201 trade action, the sheep industry must become more competitive. We are also striving to be profitable and sustainable as

a user of and contributor to our natural resource base. Research, both basic and applied, and modern educational programming are essential if we are to succeed. We have been disappointed in the decline in resources USDA has been targeting toward sheep research and out-reach programs. With net increases in the animal systems category of the agriculture research budget, for example, sheep and wool research has either declined or remained static for the past several years. In order for the sheep industry to be more globally competitive in the future, we must invest in the discovery and adoption of new technologies for producing, processing and marketing lamb and wool. We urge the subcommittee to send a strong message to USDA supporting sheep research and education funding increases.

Agricultural Research Service

Emerging and Exotic Diseases and Pests of Plants and Animals—we request the subcommittee's support for the administration's allocation of $6.782 million in this area. The animal disease portion should be substantial and is urgently needed to protect the U.S. livestock industry. ARS has planned for $5 million of these funds to be directed toward BSE research. We agree that BSE is an extremely important disease issue globally and believe that research is needed to help keep the U.S. free of this devastating disease. With this in mind, we remind the subcommittee that scrapie is a TSE that is endemic in the U.S. and we recommend that a new or expanded research effort directed toward BSE be designed in such a manner that the research will assist with scrapie eradication needs. We also respectively remind the subcommittee that scientists in the animal disease research unit (ADRU), ARS, Pullman Washington, have made significant progress in the early diagnosis of TSEs, which is important in early recognition and eradication of TSEs. The programs of these scientists at ADRU should be enhanced and expanded to include, for instance, the development of rapid and accurate methods for strain typing of TSEs within the United States and world and to understand the basis of genetic resistance and susceptibility to these devastating diseases.

We urge your support to restore the $300,000 used for collaborative research between ARS animal disease research unit in Pullman, Washington and the U.S. sheep experiment station in Dubois, Idaho concerning malignant catarrhal fever (MCF) research. These monies were established by congressional action in last year and have been successfully utilized to initiate research leading to control methods for this important disease of sheep and cattle. Health and disease management was one of the four focus areas included in the President's Section 201 relief decision. This additional funding will be key in helping us address two very important diseases.

Research into Johne's disease has received additional funding through ARS over the past several years, focusing on cattle. Johne's disease is also endemic in the U.S. sheep population and is not well understood as a sheep disease. The same food safety concerns exist in both sheep and cattle; other countries are also very concerned about Johne's in sheep.

We urge the subcommittee to send a strong message to ARS that Johne's disease in sheep should receive more attention at the National Animal Disease Research Center (NADC) with an emphasis on diagnostics.

Genetic resources are the underpinning for all livestock production systems and therefore have a great influence upon economic returns. To effectively address changing consumer demands, natural resource utilization and protection of animal biodiversity from economic changes as well as catastrophic events such as disease epidemics requires utilization and protection of the full breadth of animal genetic resources. To accomplish this a national system for the maintenance, characterization and utilization of animal genetic resources is important. We recommend that the subcommittee fund the national animal germplasm, program (NAGP) so that the NAGP can become fully functional and effective in collecting, storing and assessing animal genetic resources.

Economic Research Service

The mandatory price reporting line item in the Administration's budget includes retail price reporting which needs to include lamb as lamb is covered under mandatory reporting provisions.

RURAL DEVELOPMENT

The National Sheep Industry Improvement Center is critical to the industry and we fully support an appropriation of $5 million for fiscal year 2002. The Center is providing $14 mi1lion funds for loans in the sheep industry to rebuild and strengthen the infrastructure of the industry with loans made for wool, lamb and goat programs in 2000. Nearly one dozen loan applications are now in the review process

for approval. The Center also provided $5 million for 23 grants for American Lamb product development, marketing, and promotion in 2000 and 2001 with projects beginning in every region of the United States to strengthen efforts with American Lamb. The Center is a premier vehicle of the U.S. sheep industry's adjustment plan therefore adequate funding is critical to the industry.

COOPERATIVE STATE RESEARCH EDUCATION AND EXTENSION SERVICE (CSREES)

Minor Use Animal Drugs is a "Special Research Grant" that has had great benefit to the U.S. sheep industry. The research under this category and the companion "NRSP–7" program through FDA/CVM has provided research information on therapeutic drugs that are needed for the approval process. Without this program—American sheep producers would not have effective products to keep their sheep healthy. We appreciate the Administration's request of $549,000 for this program and we urge the subcommittee to recommend that it be funded at $750,000 to more fully meet the needs of our rapidly changing industries.

Ongoing research in wool is critically important to the sheep industry. ASI supports continued funding of $300,000 for fiscal year 2002 through the special grants program of the CSREES.

The industry greatly appreciates this opportunity to discuss these programs and appropriations important to the sheep industry.

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR MICROBIOLOGY

The American Society for Microbiology (ASM), the largest single life science organization in the world, comprised of more than 42,000 members, appreciates the opportunity to provide written testimony on the fiscal year 2002 budget for the U.S. Department of Agriculture (USDA) research and education programs.

The ASM represents scientists who work in academic, medical, governmental and industrial institutions worldwide and are involved in research to improve human health and the environment. Microbiological research is directly related to agriculture involving foodborne diseases, bioterrorism, new and emerging plant and animal diseases, soil erosion and soil biology, agricultural biotechnology, and the development of new agricultural products and processes. The ASM is a member of the Coalition on Funding Agricultural Research Missions (CoFARM), which represents scientific societies and organizations involved in formulating research directions and needs for agricultural research.

The U.S. agricultural system is one of the most productive and efficient in the world, due in part to past investments in science. Agricultural research has lead to many advances including biotechnology, which contribute to a more abundant, nutritious, efficient and environmentally friendly food supply, while at the same time reducing agriculture's reliance on chemical fertilizers, pesticides, and fungicides. USDA's research budget, however, has not grown commensurate with its record of achievement and broad and unique responsibilities to support science and technology in agriculture. According to the National Science Foundation's (NSF) Division of Science Resources Studies, agricultural research made up only 4 percent of all public funds devoted to basic research and only 2 percent of total R&D expenditures for fiscal year 2000. If the lowest cost food for the nation's consumers and agricultural exports are to continue to be successful policy for the United States, then it must be understood that continued, sustained Federal investment in agricultural research is necessary.

COOPERATIVE STATE RESEARCH, EDUCATION AND EXTENSION SERVICE

In 1989 the Board on Agriculture of the National Research Council (NRC) recommended that public investment through competitive research grants in agriculture, food, and the environment be made a national priority. To address this monumental task, Congress (1991) created the National Research Initiative Competitive Grants Program (NRI) in the hope of generating new knowledge and reinvigorating research in agriculture, food, and environmental science (National Research Initiative: a Vital Competitive Grants Program in Food, Fiber, and Natural-Resources Research, NRC, 2000). The ASM strongly supports competitive peer reviewed research that is open to all the nation's scientists. However, the ASM is disappointed with the continued decline in merit-based research programs at the USDA, such as the NRI, whose budget was decreased by 11 percent for fiscal year 2001. ASM recommends that NRI be funded at the fiscal year 2000 level of $119 million.

This funding will improve important research in agriculture including food safety and nutrition, plant, animal and microbial genomics, and emerging pest and disease management. In conjunction with other coalition groups like CoFARM, the ASM believes Federal support for agricultural research is essential to building the broad knowledge base needed to commercialize new and improved agricultural products and tools.

The ASM is pleased to see continued support for the Initiative for Future Agriculture and Food Systems (IFAFS). This competitive grants program differs from the NRI in that it provides mandatory funding for research and extension projects that is multi-disciplinary and applied in scope and targets critical agriculture issues.

AGRICULTURAL RESEARCH SERVICE

U.S. agriculture is experiencing severe problems caused by new and reemerging infectious diseases in plants and animals, a threat that requires immediate attention. The imminent threats of Bovine Spongiform Encephalopathy (BSE) and foot-and-mouth disease in animals and plum pox in plants are examples requiring new and extensive research. Cost effective and real-time monitoring may now be feasible, allowing for more immediate diagnosis. Funding and enhancing agricultural research is the surest way to prevent and control infectious and zoonotic diseases afflicting livestock and aquaculture today and mitigating the threats of tomorrow.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The Animal and Plant Health Inspection Service (APHIS) has the critical role of policing the U.S. infrastructure that is in place to prevent, diagnose and respond to a disease introduction. The U.S. needs a comprehensive biosafety system to prevent foreign animal and plant diseases from entering the domestic agriculture system. This sentinel network requires new, accurate and cost effective diagnostic tools and updated information technology.

INFECTIOUS DISEASES IN PLANTS AND ANIMALS

It is important to recognize a growing threat to the U.S. agricultural system that requires immediate attention—the threat of new and emerging infectious diseases. Like the human population, U.S. agriculture is also experiencing severe problems caused by new and emerging infectious diseases in plants and animals. Changes in agricultural practices, population growth, climate, microbial evolution, animal migration, and international trade and travel are all factors in introducing new plant and animal diseases into the U.S. agriculture system. The lack of knowledge to manage effectively and control new and reemerging infectious diseases often leads to very serious consequences from lost productivity from quarantines to embargoes, and the destruction of plants and animals to control the spread of diseases. For example, citrus canker has cost millions in tree destruction in Florida. Research, monitoring, surveillance, and new sources of resistant genetic material, including the use of biotechnology, may enable continued growth of citrus trees commercially and by homeowners. New technologies, e.g. the polymerase chain reaction, now enables us to detect minute quantities of etiological agents, including those previously ascribed to physiological problems in plants, such as the class of viruses known as luteoviruses.

FOOD SAFETY

Foodborne illness continues to pose a major public health problem in the U.S. The ASM recommends that Congress provide additional funding to USDA to expand food safety research. In a recent report it was estimated foodborne diseases cost the U.S. $8 billion in medical costs and lost productivity and an estimated 76 million illnesses a year (CDC). Further reducing foodborne illness requires not only preventing contamination through improved processing and inspection, but also educating consumers to avoid unsafe consumption choices and to prepare food safely to avoid cross-contamination. The 1997 Food Safety Initiative recognizes this with funding for a national media campaign to encourage safe food handling.

Microorganisms continue to adapt to their changing environments and begin to "out smart" current techniques to control their presence. Many foodborne microbes have developed resistance to conventional food preservation and disinfection techniques and continue to proliferate. It is also important to note that the diversity of microorganisms affecting food safety changes with time, processing techniques, location and other factors. To illustrate the growing problem, one need only examine the number of USDA and FDA regulated food product recalls because of harmful bac-

teria. In 1995 the USDA and FDA recalled 265 products due to microbial hazards; in 1999, the number of recalls rose to 337.

MICROBIAL GENOMICS

Microbes are involved in all aspects of agriculture-from beneficial uses of microbes in food (i.e., yogurt, cheese, and bread) to pest controls to the spread of disease in plants and animals and the contamination of the food supply. Studying the genomes of agricultural microbes could lead to the development of new technologies to provide improved foods and better pest control to protect the nation's crops, to reduce the incidence of plant and animal disease, and to ensure a safer food supply. Thus, ASM is highly supportive of microbial genomics through the NRI and IFAFS programs. Coordination and cooperation with the National Science Foundation in this area is particularly promising.

BIOBASED PRODUCTS

The ASM continues to support the promising research to accelerate the conversion of agricultural materials and byproducts into biofuels, such as soybean oil conversion into (bio)diesel fuel. Such scientific advancements in biobased product research have the added benefit of enhancing farm income, strengthening U.S. energy security, rural revitalization, and environmental stewardship. Current scientific estimates suggest that energy production from biofuels could generate up to 10 percent to 15 percent of the nation's energy needs. ASM believes agriculture can play a positive role in achieving U.S. energy security and encourages Congress to consider the benefit biofuels represents to the entire agriculture and consumer community.

GLOBAL COMPETITIVENESS

Recent adoption of the Uruguay Round, which confines the use of import restrictions on agriculture products of the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA) pose great challenges to American agriculture. While domestic advances in agricultural technology, including biotechnology, have achieved great strides in food production, safety, and nutrition, they will also provide similar advances to other nations. Agricultural competitiveness in the global economy depends upon the ability of producers and processors to make measurable production and quality gains while providing desirable products that are reliable and safe. Agricultural research in food safety, production systems, and biotechnology will be key instruments in maintaining America's agricultural competitiveness, while providing food security.

The ASM encourages Congress give high priority to agricultural research for fiscal year 2002. Many of today's scientific achievements leading to the development of biotechnology, genetically modified foods, improved crops and plant-based products and an improved environment have their roots in the basic research conducted by the USDA. The future holds several challenges from the monitoring of the ecological impact of transgenic plants to research in plant and animal diseases that is requisite to combating agricultural bioterrorism. We urge the Administration and Congress to assist the USDA to address these issues.

The ASM appreciates the opportunity to provide written testimony and would be pleased to assist the Subcommittee as the Department of Agriculture bill is considered throughout the congressional process.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

Chairman Cochran and Members of the Subcommittee: The American Society of Civil Engineers (ASCE) is pleased to offer this testimony on the President's proposed budget for the Natural Resources Conservation Service (NRCS) for fiscal year 2002.

ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents more than 125,000 civil engineers in private practice, government, industry and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a 501(c)(3) non-profit educational and professional society.

NRCS & THE SMALL WATERSHED DAM REHABILITATION PROGRAM

ASCE is concerned that no funds have been requested in the President's budget to fund the Small Watershed Dam Rehabilitation Program that was authorized on November 9, 2000, in PL–106–472, Section 313. We hope the outcome of the fiscal year 2002 appropriations process will enable this vital work to begin and expand

as we seek to preserve, protect and better manage our nation's water and land resources. Every state in the United States has benefited from the Small Watershed Program.

Of the 75,000 dams in the United States, 95 percent are regulated by the states. Approximately 10,400 of these dams are small watershed structures built under the United States Department of Agriculture programs authorized by Congress beginning in the 1940s (primarily the Flood Control Act of 1944, PL–534 and the Watershed Protection and Flood Control Act of 1953, PL–566). By the year 2020, more than 85 percent of all dams in the United States will be more than 50 years old, the typical useful life span.

THE URGENT NEED FOR FEDERAL ACTION

The benefits from the 10,400 improved watershed dams are enormous. The dams provide downstream flood protection, water quality, irrigation, local water supplies and needed recreation. Yet these benefits to lives and property are threatened. The small watershed dams are approaching the end of their useful lives as critical components deteriorate. The reservoirs become completely filled with sediment, downstream development increases the potential hazards and significantly changes the design standards, and many dams do not meet state dam safety standards.

Although these dams were constructed with technical and financial assistance from the Department of Agriculture, local sponsors were then responsible for operation and maintenance of the structures. Now these dams are approaching the end of their useful lives, yet the resource need is still great. The flood control benefits, the irrigation needs, the water supply, the recreation and the conservation demands do not end. In fact, they are more necessary than ever as downstream development has dramatically increased the number of people, properties and infrastructure that are protected by the flood control functions of these dams. The Federal government has a critical leadership role in assuring that these dams continue to provide critical safety and resource needs.

The NRCS in the Department of Agriculture has estimated the cost of rehabilitating the small watershed dams at $542 million. While the average rehabilitation cost per dam is approximately $242,000, the local sponsors typically do not have sufficient financial resources to complete these necessary repairs to assure the safety and critical functions of these dams. The Federal government must recognize the urgent need to provide assistance to maintain these dams. Congress should reinforce its earlier commitment to the goals of the Flood Control Acts of 1944 and 1953.

EXTENT OF THE PROBLEM

ASCE views funding of dam safety repairs as a critical need. In the recently released Report Card for America's Infrastructure dams received a grade of D. Nearly 2,000 unsafe dams have been identified in this country and many of the owners do not have sufficient funding sources. Last year Congress proposed funding $60 million a year for 10 years, but the legislation enacted only authorizes $90 million spread over five years. However, this is an important first step in recognizing and resolving the enormous problem with deteriorating and aging dams. Many of these urgent repairs and modifications are needed because of the following: downstream development within the dam failure flood zone, replacement of critical dam components, inadequate spillway capacity due to significant watershed development and increased design criteria due to downstream development.

Many of the small watershed dams do not meet minimum state dam safety standards and many that are being counted on for flood protection can no longer provide flood protection due to excessive sedimentation and significant increases in runoff from development within the watershed. The dams suffer from cracked concrete spillways, failing spillways, inoperable lake drains and other problems that require major repairs that are beyond the capability of the local sponsors.

THE COST OF NO ACTION

These small watershed dams have been a silent and beneficial part of the landscape; but failure to make the necessary upgrades, repairs and modifications will increase the likelihood of dam failures. Continued neglect of these structures may easily result in reduced flood control capacity causing increased downstream flooding. Failure of a dam providing water supply would result in a lack of drinking water or important irrigation water.

The floods in Georgia in 1993 and in the Midwest in 1994 are recent reminders of natural events that can cause enormous disasters, including dam failures. The failure to act quickly will clearly result in continued deterioration and a greater number of unsafe dams until a dam failure disaster occurs. The failure of a 38-foot

tall dam in New Hampshire in 1996, which caused $5.5 million in damage and one death, should be a constant reminder that dam failures happen and can have tragic consequences.

Completion of the needed repairs will result in safer dams, as well as continued benefits. Failure to establish a mechanism to reinvest in these structures will greatly increase the chances of dam failures and loss of benefits, both having significant economic and human consequences. Costs resulting from flood damage and dam failure damage are high and unnecessarily tap the Federal government through disaster relief funds or the National Flood Insurance Program.

RECOMMENDATION

ASCE urges the committee to approve full funding at the authorized level of $10 million, and an additional $5 million to make up for funding not received in fiscal year 2001 for the Small Watershed Dams Rehabilitation Program (PL–106–472, Section 313). Additionally, we would like to see these rehabilitation funds be a separate line item in the NRCS budget in an effort to better track the rehabilitation funding approved by Congress. While, this is well short of the demonstrated need of $60 million a year for 10 years, it would be a step in the right direction.

The condition of our nation's dams, and the need for watershed structure rehabilitation, should be a national priority before we have to clean up after dam failures that we know are likely to happen if nothing is done.

ASCE also supports a research and development (R&D) program as we get the structural rehabilitation process underway. In the USDA, the Agricultural Research Service (ARS) undertakes that work. We respectfully request that $1.5 million be included in the ARS budget for small watershed research. These funds would be used for evaluation of upstream and downstream changes to the stream channel systems in cases of decommissioning, evaluation of the water quality impact of stored sediment releases, and the evaluation of impacts of the loss of flood protection, among other things.

NRCS & the Snow Telemetary Program

In the West, water—much of which flows from mountain snows—is one of our most precious natural resources. This year the West is faced simultaneously with potential drought, wildfires, and an energy crisis in part due to reduced hydropower generation. To effectively manage this important resource, it is essential to have accurate water-supply data.

Therefore, we respectfully request that you include $8,515,000 (a $2,525,000 increase) in the Natural Resources Conservation Service's Conservations Operations Account (CO–01) and Snow Survey and Water Supply Forecasting Subaccount (CO–45) in the Agriculture appropriations bill. This service is administered by the National Water and Climate Center (NWCC), and operates in each western state. The base budget amount of $5,990,000 is not adequate to operate and maintain the existing system of 656 SNOTEL (SNOw-TELemetry) sites and 1,110 snow courses measured manually.

The vital information obtained through this water-supply data is used by various government agencies and other public and private entities and individuals to project spring and summer water supplies for agriculture, municipal, and industrial uses, hydropower production, recreation, fish and wildlife management, endangered species needs, flood control, and other purposes. Non-Federal cooperators contribute money and in-kind services in support of the system.

Over the past five years, level Federal appropriations in the face of increasing costs has left the Snow Survey and Water Supply Forecasting program in serious circumstances. Given past and present funding requests from the Executive Branch, and the subsequent erosion in program resources, the NWCC has prepared a protocol for discontinuing 10 to 15 percent of the SNOTEL sites. In order to protect the nation's $30 million investment in this vital network, a $2,525,000 increase is needed over and above the $5,990,000 base amount, for a total of $8,515,000.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS

Mr. Chairman, the American Society of Plant Physiologists representing 6,000 plant scientists, appreciates this opportunity to submit comments to the Subcommittee for its consideration of fiscal year 2002 appropriations for research sponsored by the Department of Agriculture.

Support by the Subcommittee for the National Research Initiative Competitive Grants Program (NRI) provides the agricultural research community and America's

farmers with a highly acclaimed program that determines awards through a rigorous peer review process.

The National Research Council Board on Agriculture and Natural Resources committee report on the NRI last year strongly endorsed support for this competitive grants program. The NRC committee "found the NRI to have financed high-quality scientific work within congressional guidelines. . . . The committee reiterates the extraordinary importance of public merit-based peer-reviewed research in food, fiber and natural resources. In the committee's opinion, past public research and current private activities cannot meet the needs that are being created by population growth, climate change and natural resource deterioration or the challenges related to food safety and nutrition and to the growing convergence of foods and medical research."

The NRC committee recommended that a major emphasis of the NRI continue to be the support of high-risk research with potential long-term payoffs. Much of this research would be classified as fundamental in the traditional use of this term.

A major conclusion of the NRC committee was that, "Without a dramatically enhanced commitment to merit-based peer-reviewed, food, fiber and natural resources research, the nation places itself at risk."

In addition to the direct benefits to farmers and consumers that result from the leading research discoveries sponsored by the NRI, increased support for the program would help maintain the strength and vigor of the nation's agricultural research community. We urge the Subcommittee to increase support for the NRI, including NRI-sponsored plant research to help meet the important long-term research needs of America's farmers.

The Initiative for Future Agriculture and Food Systems (IFAFS) has provided grants at levels that enable scientists of different institutions and disciplines to work together in addressing important research questions. ASPP urges the Subcommittee to continue support for IFAFS in the fiscal year 2002 appropriation at the level authorized by statute.

The Agricultural Research Service (ARS) continues to address effectively many important research questions for American agriculture. American farmers and consumers are well-served by the large number of successful research efforts of ARS scientists. Continued support for a balanced research portfolio in the Department including intramural and extramural research is needed to address the many and sometimes devastating problems farmers face in growing crops.

ASPP supports the request of the National Coalition for Food and Agricultural Research (National C–FAR) to double support for agricultural research over five years—a rate of increase averaging more than 14 percent a year. We encourage the Subcommittee to increase support for all agricultural research programs supported by the Department of Agriculture by more than 14 percent this year.

What could be done with this requested increase in funding? In the plant science area alone, we know that extraordinary advances can be achievable with sufficient support and time. Increased funding can be expected to accelerate the time in which advances could be made.

The age of genomics and biotechnology has brought revolutionary new tools to plant scientists to better serve the needs of agriculture. Following this paragraph is a look back to what has happened in agriculture in the past century to offer some guideposts for a look ahead to the new century before us. The look ahead includes projections of what may be expected to be achieved earlier or later in this new century depending upon levels of support for research. We appreciate the assistance of ASPP Education Foundation Chairman Bob Goldberg, Professor at the University of California, Los Angeles, and founding editor-in-chief of the widely cited science journal, THE PLANT CELL, for his contributions to this following look back and ahead for plant science and agriculture.

Starting with the year 1900, we find that Mendel's laws of genetics were not widely understood. The tools and knowledge base of those studying plants at the time are now seen as quite primitive. The study of Botany focused more on the classification of species of plants. The study of plant physiology within Botany to learn more of the structure and functions of plants would not emerge as a strong separate discipline until the end of the first quarter of the century.

Despite the modest state of plant science and agriculture in 1900, the ensuing 100 years reaped increases in crop yields in the range of 300 percent. In addition, the number of Americans needed to work on farms to produce food for the rest of us dwindled from one in two people to nearly one in 100.

Along the way, developments in the area of plant breeding, genetic engineering, genomics, irrigation, use of fertilizers, computers, and other advances helped transform plant science, American agriculture and the nation itself.

For the 21st Century, plant scientists predict even more impressive gains—gains for which there are a definite need. In the next 50 years , we will have to produce more food than has ever been produced in the collective history of people on earth. On a world scale, agriculture on a per capita basis is on a decline as we begin the 21st Century. Today we have hunger even in parts of prosperous nations like the U.S.

At the same time, the world is near the limits of available land and other resources for agriculture. More environmentally benign agricultural practices and more productive plants will be needed. In addition to demands on cropland for food, there will be increased demands on farmers to grow energy feedstocks. Some plant scientists predict that plants will rival petroleum for the production of industrial chemical products such as polymers, polyurethane, nylon and other materials. New high value energy crops will provide new profitable markets for American farmers who will become less dependent on government subsidies.

Major crops will be genetically modified to fix nitrogen as is now found in legumes, leading to less use of applied fertilizers and to a cleaner environment. Dead zones in the Gulf of Mexico and other cases of contaminated waterways reportedly linked to agricultural runoff would be addressed through use of engineered crop plants that can fix nitrogen.

The lines between agricultural research and medical research will blur as advances in plant science will address nutritionally related human health diseases on a mass public health scale. Calcium deficiency is common in the diets of American adolescents, particularly girls, leaving many with less dense bones more susceptible to fracture and osteoporosis later in life. Foods commonly eaten by children will be engineered by plant scientists to contain higher levels of calcium. A number of common mineral and vitamin deficiencies in diets causing various maladies for people here and abroad will be addressed by enhanced foods engineered by plant scientists. Anemia, the most widespread ailment related to nutritional deficiency in the developing world, will be addressed by a new "Golden Rice" with higher levels of usable iron. This rice will also contain higher levels of beta carotene, which converts to Vitamin A after human consumption. This enhanced rice could prevent 500,000 cases of child blindness annually.

Millions of Americans and many more people overseas have allergies to proteins in widely consumed existing foods such as wheat and milk. We have already seen success in laboratory experiments supported by the NRI that are eliminating allergens in wheat and milk. Researchers have identified a number of other foods that could be made safer for consumption through this research using biotechnology. Millions of cases of allergic reactions to foods will be averted through these genetically enhanced foods. High value, allergen-free wheat and other commodity products will be grown by American farmers who will find new premium markets for their products.

Plants have long been a major source of pharmaceutical products. As plant scientists combine use of modern transformation technologies with increased knowledge of plant genomes, many more life saving medicines will be developed. Some of these plant-based pharmaceutical products will take the form of edible vaccines—such as bananas genetically engineered to produce a vaccine for hepatitis B or deadly infant diarrhea.

Genomics will help in understanding hybrid vigor to produce enhanced, higher yielding crops. Plant scientists will learn how to change the size and number of plant seeds and organs. The earliest events controlling plant reproduction will be understood.

Scientists may learn how to engineer plants that will better capture higher levels of carbon dioxide in the atmosphere for use with the sun's energy in photosynthesis, leading to faster growing plants and possibly an additional harvest season for some crops.

Plants engineered to tolerate higher levels of salinity will help farmers salvage more of their crops in dry seasons. Increased tolerance of future engineered plants to environmental stresses of cold and freezing will be a boon to the horticultural industry and other growers. The Federal government will experience savings in emergency spending for crop disasters—some disasters that will be avoided through use of new, enhanced plants.

Just as we found in the century past, the advances in the 21st Century will transform plant science, American agriculture, the nation and world our grandchildren will inhabit. Indeed, this transformation will have to occur because the well-being and even survival of many in future generations will require it.

Again, thank you for this opportunity to submit comments to the Subcommittee. We appreciate the Subcommittee's leadership in support of agricultural research.

PREPARED STATEMENT OF THE ASSOCIATION OF RESEARCH DIRECTORS

Chairman Cochran, and other distinguished members of the Committee, I am Carolyn Brooks, Dean of the School of Agricultural and Natural Sciences and Research Director at the University of Maryland Eastern Shore and Chair of the Association of Research Directors (ARD) of the eighteen Historically Black Land-Grant Colleges and Universities, including Tuskegee University (hereafter referred to as the 1890s). Mr. Chairman, I submit, on behalf of the ARD, this written testimony in support of the fiscal year 2002 Federal Budget recommendations, primarily those submitted by the National Association of State Universities and Land-Grant Colleges (NASULGC).

GENERAL INFORMATION

The role of the 1890 Land-Grant institutions, relative to research in the food, fiber, and agricultural sciences, partnering and collaborating with USDA, NASULGC and other entities, is to conduct basic and applied research to ensure a safe, economical and adequate food supply, promote a sustainable environment, conserve the natural resource base, and contribute to the improvement of the socio-economic well-being and overall quality of life of diverse rural and urban populations. Research at our institutions is increasingly multi-institutional, multi-state and stakeholder driven and is focused on:

—Economically competitive and sustainable small-scale agricultural systems;
—Crop diversity/alternative crops and marketing strategies for farmers;
—Food safety and quality;
—Family and community development;
—Protection and improvement of water quality and quantity;
—Waste management and prevention of environmental pollution;
—Value-added plant and animal products; and
—Improved nutrition and health of urban and rural populations.

The 1890 Land-Grant mission of providing access to higher education and opportunities for betterment of life for all Americans constantly guides the plans and initiatives in research, outreach and academic programs of these institutions. The general philosophy of the 1890s is that "men and women of talent and ability, regardless of their economic and social condition, can contribute to the common good, with hard work and the opportunity to develop and prosper." Although the 1890s proudly keep pace with mainstream education and cutting-edge advancement, these campuses hold true to focusing on viable research programs that focus on societal needs and increasing diversity within the human resource capital.

BUDGET RECOMMENDATIONS

The 1890s/ARD request continuing support of these research efforts, which will result in having positive impacts and valuable benefits for the people served and will involve students, giving them valuable training and experience in research methodology and practices. Research initiatives the 1890s/ARD request congressional support for in the fiscal year 2002 Federal Budget are:

To Strengthen The Evans-Allen Base Program

The Evans-Allen formula funding provides the 1890s with their primary financial support to conduct research in the food, fiber, and agricultural sciences. The research conducted by these institutions provides both proactive and reactive responses to public concern about environmental, social, economic, and health issues, small-scale agriculture, and small business enterprises. The NASULGC/ARD budget request for this research program is $36,197,000.

To Enhance Research and Teaching Initiatives

The 1890s are the major producers of African-American minority human capital resources in food, fiber, and agricultural sciences. The human capital resources produced by these institutions meet a significant employment need of their land-grant partners, which include USDA agencies, private industry, and 1862 Land-Grant Universities. Initiatives to be supported are:

The Capacity Building Grants Program.—This highly competitive program is needed to continue to build and enhance the capacity of the 1890s in research and teaching endeavors. Because of a history of neglect and underfunding, it is amazing how the 1890s have been able to do so much with so little. At least 80 percent of all African Americans who receive baccalaureate degrees in the agricultural sciences have received their education from 1890 institutions. These students deserve the same quality of education provided at higher funded institutions. Capacity Building grants assist the 1890s to raise the quality of research and teaching programs at

our institutions. We have a unique and vital mission as intellectual, educational, service centers and funding that recognizes this is crucial to our vitality and quality. The NASULGC/ARD budget request for this grant program is $15,000,000.

The Facilities Grants Program.—Funds may be used by the recipient institutions to purchase land, acquire state-of-the-art equipment, and renovate or construct facilities to enhance their teaching, research and extension land-grant programs. The NASULGC/ARD budget request for this grant program is $15,000,000.

CLOSING COMMENTS

Mr. Chairman, based on past accomplishments of which we are extremely proud, and a visionary approach, the 1890s/ARD are positioning themselves to enter the 21st Century with a renewed commitment and capacity to implement their land-grant research mission. Full appropriations of the fiscal year 2002 budget recommendations as stated above will facilitate this and is vital to the ARD member institutions. I thank you very much for allowing me to address this honorable body and if there is a need for additional information, you may contact me as indicated below.

PREPARED STATEMENT OF THE ASSOCIATION OF STATE DAM SAFETY OFFICIALS, INC.

Chairman Cochran and Members of the Subcommittee: The Association of State Dam Safety Officials (ASDSO) is pleased to offer this testimony on the President's proposed budget for the Natural Resources Conservation Service (NRCS) for fiscal year 2002.

The Association of State Dam Safety Officials is a national organization of more than 2,000 state, Federal and local dam safety officials and private sector individuals dedicated to improving dam safety through research, education and communications. Our goal is to save lives, prevent damage to property and maintain the benefits of dams by preventing dam failures. Several devastating dam failures occurring in the 1970s focused attention on the potential catastrophic results of dam failures. These dramatic failures demonstrate that dams should always be properly constructed, operated and maintained to continue to provide important benefits and prevent failures.

ASDSO is concerned that no funds have been requested in the President's budget to fund the Small Watershed Dam Rehabilitation Program that was authorized on November 9, 2000, in Public Law 106–472, Section 313. We hope the outcome of the fiscal year 2002 appropriations process will enable this vital work to begin and expand as we seek to preserve, protect and better manage our nation's water and land resources. Every state in the United States has benefited from the Small Watershed Program.

Dams are an important part of the nation's infrastructure. They provide flood control, water supply, irrigation, hydropower and water quality benefits. Of the 75,000 dams in the United States, 95 percent are regulated by the states. Approximately 10,400 of these dams are small watershed structures built under the United States Department of Agriculture programs authorized by Congress beginning in the 1940s (primarily the Flood Control Act of 1944, Public Law 534 and the Watershed Protection and Flood Control Act of 1953, Public Law 566). By the year 2020, more than 85 percent of all dams in the United States will be more than 50 years old, the typical useful life span.

THE URGENT NEED FOR FEDERAL ACTION

The benefits from the 10,400 improved watershed dams are enormous. The dams provide downstream flood protection, water quality, irrigation, local water supplies and needed recreation. Yet these benefits to lives and property are threatened. The small watershed dams are approaching the end of their useful lives as critical components deteriorate. The reservoirs become completely filled with sediment, downstream development increases the potential hazards and significantly changes the design standards, and many dams do not meet state dam safety standards.

Although these dams were constructed with technical and financial assistance from the Department of Agriculture, local sponsors were then responsible for operation and maintenance of the structures. Now these dams are approaching the end of their useful lives, yet the resource need is still great. The flood control benefits, the irrigation needs, the water supply, the recreation and the conservation demands do not end. In fact, they are more necessary than ever as downstream development has dramatically increased the number of people, properties and infrastructure that are protected by the flood control functions of these dams. The Federal government

has a critical leadership role in assuring that these dams continue to provide critical safety and resource needs.

The NRCS in the Department of Agriculture has estimated the cost of rehabilitating the small watershed dams at $542 million. While the average rehabilitation cost per dam is approximately $242,000, the local sponsors typically do not have sufficient financial resources to complete these necessary repairs to assure the safety and critical functions of these dams. The Federal government must recognize the urgent need to provide assistance to maintain these dams. Congress should reinforce its earlier commitment to the goals of the Flood Control Acts of 1944 and 1953.

EXTENT OF THE PROBLEM

ASDSO views funding of dam safety repairs as a critical need. Nearly 2,000 unsafe dams have been identified in this country and many of the owners do not have sufficient funding sources. Last year Congress proposed funding $60 million a year for 10 years, but the legislation enacted only authorizes $90 million spread over five years. However, this is an important first step in recognizing and resolving the enormous problem with deteriorating and aging dams. Many of these urgent repairs and modifications are needed because of the following: downstream development within the dam failure flood zone, replacement of critical dam components, inadequate spillway capacity due to significant watershed development and increased design criteria due to downstream development.

Many of the small watershed dams do not meet minimum state dam safety standards and many that are being counted on for flood protection can no longer provide flood protection due to excessive sedimentation and significant increases in runoff from development within the watershed. The dams suffer from cracked concrete spillways, failing spillways, inoperable lake drains and other problems that require major repairs that are beyond the capability of the local sponsors.

THE COST OF NO ACTION

These small watershed dams have been a silent and beneficial part of the landscape; but failure to make the necessary upgrades, repairs and modifications will increase the likelihood of dam failures. Continued neglect of these structures may easily result in reduced flood control capacity causing increased downstream flooding. Failure of a dam providing water supply would result in a lack of drinking water or important irrigation water.

The floods in Georgia in 1993 and in the Midwest in 1994 are recent reminders of natural events that can cause enormous disasters, including dam failures. The failure to act quickly will clearly result in continued deterioration and a greater number of unsafe dams until a dam failure disaster occurs. The failure of a 38-foot tall dam in New Hampshire in 1996, which caused $5.5 million in damage and one death, should be a constant reminder that dam failures happen and can have tragic consequences.

Completion of the needed repairs will result in safer dams, as well as continued benefits. Failure to establish a mechanism to reinvest in these structures will greatly increase the chances of dam failures and loss of benefits, both having significant economic and human consequences. Costs resulting from flood damage and dam failure damage are high and unnecessarily tap the Federal government through disaster relief funds or the National Flood Insurance Program.

RECOMMENDATION

ASDSO urges the committee to approve full funding at the authorized level of $10 million, and an additional $5 million to make up for funding not received in fiscal year 2001 for the Small Watershed Dams Rehabilitation Program (Public Law 106–472, Section 313). Additionally, we would like to see these rehabilitation funds be a separate line item in the NRCS budget in an effort to better track the rehabilitation funding approved by Congress. While, this is well short of the demonstrated need of $60 million a year for 10 years, it would be a step in the right direction.

The condition of our nation's dams, and the need for watershed structure rehabilitation, should be a national priority before we have to clean up after dam failures that we know are likely to happen if nothing is done.

ASDSO also supports a research and development (R&D) program as we get the structural rehabilitation process underway. In the USDA, the Agricultural Research Service (ARS) undertakes that work. We respectfully request that $1.5 million be included in the ARS budget for small watershed research. These funds would be used for evaluation of upstream and downstream changes to the stream channel systems in cases of decommissioning, evaluation of the water quality impact of

stored sediment releases, and the evaluation of impacts of the loss of flood protection, among other things.

PREPARED STATEMENT OF BERNARD H. BERNE, M.D., PH.D.

I am a resident of Arlington, Virginia. I serve the Food and Drug Administration (FDA) as a Medical Officer and as a reviewer medical device approval applications. I am testifying as a private individual.

I ask your Subcommittee to deny the Administration's request to provide $6,000,000 for costs related to occupancy of new FDA facilities at White Oak, Maryland. This request appears in the President's Budget for fiscal year 2002 on p. 435 under the heading "Department of Health and Human Services", "Food and Drug Administration", "Salaries and Expenses". The Budget states on p. 436 that these funds would support the first phase of FDA's consolidation into the White Oak, Maryland, site.

The General Services Administration (GSA) is now starting to design and construct this facility. These would be the first funds that Congress would appropriate to the Department of Health and Human Services (HHS) and FDA to support the White Oak project. Please deny these funds for the following reasons:

ECONOMIC CONSIDERATIONS

FDA will need to pay rent to GSA if it occupies this facility. FDA's future budgets, which your Subcommittee would fund, would pay these rents. The rents would likely be higher than rents that GSA and FDA pay to private property owners, since GSA would not need to enter into competitive bidding processes.

Congressional authorizing committees need to evaluate the current costs of the consolidation and compare them to the costs of maintaining FDA's current facilities. No Congressional committee has done this during the past ten years.

All or nearly all of FDA's offices that would move to White Oak are presently located in satisfactory leased facilities. Some, such as my own, are in excellent buildings. There is no urgent need or economic reason to relocate these offices to White Oak.

Despite this, the requested $6,000,000 would support the relocation of the Office of Compliance of FDA's Center for Drug Evaluation and Research (CDER) to White Oak. There is no clear need for this relocation, since it would put 20 miles between this office and all other CDER offices. The relocation would clearly decrease FDA's efficiency by decreasing interactions between this office and related ones.

GSA has recently encountered delays in its design and construction efforts. It appears that FDA will not be able to utilize any of the appropriated funds in fiscal year 2002. FDA apparently can not occupy the facility until fiscal year 2003.

The Budget request is therefore premature. There is no need need to provide the requested $6,000,000 at this time.

LOCATION

White Oak is an unsatisfactory location for FDA's headquarters consolidation. The project would promote urban sprawl.

FDA's White Oak facility would occupy 125 acres next to a golf course in a suburban residential neighborhood in Montgomery County, Maryland. The FDA site is outside of the Capital Beltway on a largely forested 750-acre property surrounded by heavily congested roads and highways. The site is three miles from the nearest Metro station, and has only infrequent bus service.

An FDA consolidation at White Oak would bring 6000 FDA employees to this Washington area suburb. Most would need to commute for much longer times and distances than they presently do. White Oak is more than 20 miles from most present FDA facilities.

I and thousands of other FDA employees presently commute to work by Metro, as our workplaces are near Metro stations. This will be impossible at White Oak.

FDA employees driving to White Oak will add traffic congestion and air pollution to the Washington Metropolitan Area. This is especially unfortunate because the Washington Metropolitan Area already has the second worst traffic congestion of all urban areas in the United States.

FDA employee surveys have revealed widespread opposition to this relocation. Last July, a survey of those employees who would relocate first to White Oak showed that 70 percent opposed the move. Many stated that the relocation would impair FDA's ability to regulate drugs and medical devices.

A number of the employees noted that the first White Oak building will have few window offices. Many of the employees who would relocate to White Oak in the first phase presently have windows in their offices. The design of this building and the location of the facility will have long-lasting adverse effects on FDA's ability to recruit and retain qualified employees. The Washington Metropolitan area has a number of better sites at which FDA can consolidate. Among these is the Southeast Federal Center in downtown Washington, D.C. This underutilized 50-acre federally-owned property is adjacent to the Navy Yard Metro Station. It is only one mile from the U.S. Capitol and the headquarters of the U.S. Department of Health and Human Services.

LEGAL ISSUES

On February 23, 2001, I and a number of other FDA employees joined the Sierra Club and the Forest Conservation Council in a law suit that is intended to stop the White Oak project. For a number of reasons, FDA's occupancy of any buildings at White Oak would be illegal. The U.S. District Court for the District of Columbia is presently considering this suit.

The White Oak facility would house the Office of the Commissioner of Food and Drugs, as well as most other FDA headquarters offices. This would violate 4 U.S.C. § 72, which states: "All offices attached to the seat of government shall be exercised in the District of Columbia, and not elsewhere, except as otherwise expressly provided in law." 4 U.S.C. § 72 is derived from the 1790 Act that established the District of Columbia as the Nation's capital. The first Congress enacted this law, which President George Washington signed.

There is no law that expressly provides that FDA's headquarters offices shall be exercised outside of the District of Columbia.

The FDA Revitalization Act (Public Law 101–635; 21 U.S.C. § 369b), authorizes the Secretary of HHS to award contracts to acquire property and to construct and operate a consolidated FDA headquarters facility. This Act does not provide the location of the consolidated facility.

I ask Congress not to appropriate funds to support an illegal activity. The 1790 Act had the worthy purpose of ensuring that all central offices of the Federal government would consolidate in the Federal capital District, and not elsewhere. The consolidated FDA facility would be one such office that is "attached to the seat of government".

Article 1, Section 8, of the Constitution gives Congress exclusive jurisdiction over the District of Columbia. Your Committee should take no action to support the location of FDA's headquarters at a location that is outside of the District. Any such action would tend to vitiate this section of the Constitution, which 4 U.S.C. § 72 is intended to support.

Executive Order 12072, Aug. 16, 1978, states in Section 1–1, Subsection 101: "Federal facilities and Federal use of space in urban areas shall serve to strengthen the nation's cities and to make them attractive places to live and work. Such Federal space shall conserve existing urban resources and encourage the development and redevelopment of cities."

White Oak is not in or near any city. An FDA consolidation at White Oak (which is in an "urban area", the Washington Metropolitan Area) would not strengthen any cities. The FDA facility would not encourage the development or redevelopment of any cities.

Executive Order 12072, Section 1–1, Subsection 101, contains the word "shall" in several locations. FDA therefore can not legally locate its headquarters in suburban White Oak.

Executive Order 12072 and several Federal statutes require that heads of Federal agencies consult with local city officials to obtain their recommendations for and objections to all proposed new Federal facilities. Neither GSA nor FDA officials ever consulted with officials of the District of Columbia or of the City of Rockville in Montgomery County, Maryland, concerning the White Oak facility.

This lack of consultation violated Executive Order 12072 and several laws. It prevented District and Rockville officials from recommending alternative sites for the consolidated facility within their own jurisdictions and from objecting to the selection of the White Oak site.

The Public Buildings Act of 1959 requires that the Committee on Environment and Public Works of the U.S. Senate approve prospectuses that describe the location and maximum costs of any large buildings that GSA may wish to construct before Congress can appropriate funds to design and construct such buildings. That Committee has never approved a prospectus that describes FDA's White Oak facility.

The Treasury and General Government Appropriations Act, 2000 (Public Law 101–58) appropriated funds to GSA that could support the first phase of FDA's consolidation in Montgomery County, Maryland. However, Public Law 101–58 contains a provision at 113 Stat. 451 that states: "Provided further, That funds available to the General Services Administration shall not be available for expenses in connection with any construction, repair, alteration, or acquisition project for which a prospectus, if required by the Public Buildings Act of 1959, as amended, has not been approved, except that necessary funds may be expended for each project for required expenses in connection with the development of a proposed prospectus."

The Public Buildings Act of 1959 requires a prospectus that describes FDA's White Oak facility. No prospectus that described this facility had been approved before Public Law 101–58 was enacted into law. Therefore, GSA may only legally use the funds appropriated in this act for "required expenses in connection with the development of a proposed prospectus". GSA cannot legally use the funds to design and construct any buildings.

Despite this prohibition, GSA is presently designing and starting to construct the first phase of the consolidation without an approved prospectus. This is illegal.

The Budget asks Congress to appropriate funds in the Agriculture, Rural Development, Food and Drug Administration Appropriations Act, 2002, that would enable FDA to occupy new facilities at White Oak that GSA would construct illegally. Your Committee should not initiate the appropriation of any such funds.

The prospectus approval process is designed to assure that Congress evaluates the need, location, and maximum cost for all GSA building projects. Congress has never done this for the facilities that FDA would occupy at White Oak.

The National Environmental Policy Act (NEPA) of 1969 requires that Federal agencies compare in an Environmental Impact Statement (EIS) alternative locations for any large new Federal facility. However, the EIS for the White Oak FDA facility did not make any such comparisons.

The EIS only compared the environmental impacts of an FDA consolidation at White Oak with the "no action" alternative. Following this legally inadequate comparison, GSA and FDA officials selected White Oak as the location for the facility.

GSA and FDA officials therefore violated NEPA when they selected the White Oak site. Congress should not appropriate funds to support this illegal selection.

A Federal court may prevent FDA from consolidating its facilities at White Oak for one or more of the above reasons. Congress should not provide funds for FDA to occupy the White Oak facility until the Federal courts decide whether the project can proceed.

I therefore ask that your Committee not provide the requested $6,000,000 to FDA in this legislation. Thank you.

PREPARED STATEMENT OF THE CALIFORNIA INDUSTRY AND GOVERNMENT CENTRAL CALIFORNIA OZONE STUDY COALITION

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Central California Ozone Study Coalition we are pleased to submit this statement for the record in support of our fiscal year 2002 funding request of $500,000 from CSREES for the Central California Ozone Study (CCOS).

Ozone and particulate matter standards in most of central California are frequently exceeded. In 2003, the U.S. Environmental Protection Agency (U.S. EPA) will require that California submit SIPs to for the recently promulgated, national, 8-hour ozone standard. It is expected that such SIPs will be required for the San Francisco Bay Area, the Sacramento Valley, the San Joaquin Valley, and the Mountain Counties Air Basins. Photochemical air quality modeling will be necessary to prepare SIPs that are acceptable to the U.S. EPA.

Central California Ozone Study (CCOS) is designed to enable central California to meet Clean Air Act requirements for ozone State Implementation Plans (SIPs) as well as advance fundamental science for use nationwide. The CCOS field measurement program was conducted during the summer of 2000 in conjunction with the California Regional PM10/PM2.5 Air Quality Study (CRPAQS), a major study of the origin, nature and extent of excessive levels of fine particles in central California. CCOS includes an ozone field study, a deposition study, data analysis, modeling performance evaluations, and a retrospective look at previous SIP modeling. The CCOS study area extends over central and most of northern California. The goal of the CCOS is to better understand the nature of the ozone problem across the region, providing a strong scientific foundation for preparing the next round of State and Federal attainment plans. The study includes six main components:

—Developed the design of the field study

—Conducted an intensive field monitoring study from June 1 to September 30, 2000
—Developing an emission inventory to support modeling
—Developing and evaluating a photochemical model for the region
—Designing and conducting a deposition field study
—Evaluating emission control strategies for the next ozone attainment plans

CCOS is directed by Policy and Technical Committees consisting of representatives from Federal, State and local governments, as well as private industry. These committees, which managed the San Joaquin Valley Ozone Study and currently managing the California Regional Particulate Air Quality Study, are landmark examples of collaborative environmental management. The proven methods and established teamwork provide a solid foundation for CCOS. The sponsors of CCOS, representing state, local government and industry, have contributed approximately $8.7 million for the field study. The Federal government contributed $500,000 for some data analysis. In addition, CCOS sponsors are providing $2 million of in-kind support. The Policy Committee is seeking Federal co-funding of additional $8.5 million to complete the data analysis and modeling portions of the study and for a future deposition study. California is an ideal natural laboratory for studies that address federal, agriculture-related issues, given the scale and diversity of the various ground surfaces in the region (crops, woodlands, forests, urban and suburban areas).

For fiscal year 2002, our Coalition is seeking funding of $500,000 through the U.S. Department of Agriculture (USDA) Cooperative State Research, Education, and Extension Service (CSREES). Domestic agriculture is facing increasing international competition. Costs of production and processing are becoming increasingly more critical. The identification of cost-effective options for addressing environmental options affecting agricultural costs will contribute significantly to the long-term health and economic stability of local agriculture. A CSREES grant is needed to address the issue of biomass burning and alternatives to open burning. Biomass burning is managed in order to minimize smoke impacts and avoid violations of ambient air quality standards. The air quality impacts of using biomass as a fuel source and as an alternative to open burning need to be addressed. CCOS will improve the ability to assess the impacts of biomass power plants.

There is a national need to address national data gaps and California should not bear the entire cost of the addressing these gaps. National data gaps include issues relating to the integration of particulate matter and ozone control strategies. The CCOS field study took place concurrently with the California Regional Particulate Matter Study—previously jointly funded through Federal, State, local and private sector funds. Thus, CCOS was timed to enable leveraging of the efforts for the particulate matter study. Some equipment and personnel served dual functions to reduce the net cost. From a technical standpoint, carrying out both studies concurrently was a unique opportunity to address the integration of particulate matter and ozone control efforts. CCOS was also cost-effective since it builds on other successful efforts including the 1990 San Joaquin Valley Ozone Study. Federal assistance is needed to effectively address these issues and CCOS provides a mechanism by which California pays half the cost of work that the Federal government should pursue.

Scientists at the University of Nevada, Desert Research Institute (DRI) are involved with the CCOS. To expedite research studies related to biomass burning and smoke management for CCOS, it is requested that funds provided by CSREES be allocated directly to DRI.

We appreciate the Subcommittee's consideration of our request. Thank you very much.

PREPARED STATEMENT OF THE COALITION FOR APHIS/ANIMAL CARE APPROPRIATIONS

The Coalition for APHIS/Animal Care Appropriations first wishes to express its appreciation to the subcommittee and to the full committee for helping to improve Animal Welfare Act (AWA) enforcement in fiscal years 2000 and 2001 through the first funding increases the program has experienced in a decade. As you know, the Animal Welfare Act sets minimum standards of humane care for millions of animals in research institutions; in zoos, circuses, roadside menageries, and other exhibits; at the facilities of breeders and dealers; and during transportation by common carriers, such as airlines. After such a long period of budget stagnation and program retrenchment, the Animal Care (AC) division of the Animal and Plant Health Inspection Service has put the new funds to good use by, among other things, increasing the number of compliance inspections, which are crucial to protecting human and animal health and safety as the law requires, from a low of 8,772 to a projected

10,086 this fiscal year. Moreover, Animal Care has initiated a more vigorous effort directed at unlicensed facilities, and has more frequently been able to confiscate and place animals immediately when necessary to relieve suffering.

Our testimony today urges the subcommittee to continue to support this steady and much needed improvement in AWA enforcement, which would entail a modest total increase of $3.8 million in fiscal year 2002 in three critical AWA-related programs. We have attached materials providing details on each component of this request and have summarized as follows:

—Ideally, Animal Care should be conducting 17,000 AWA compliance inspections per year (AC also carries out over 1,000 prelicensing and preregistration inspections annually), conducting internal audits and inspector quality reviews, and expanding its programs for regulated industries. To sustain the progress it has achieved in the last two years, Animal Welfare will need a modest increase of $2.4 million in fiscal year 2002, for a total appropriation of $14.5 million.

—Ironically, Animal Care's enhanced AWA activities have now brought to the fore problems elsewhere, specifically in Investigative and Enforcement Services. This division supports AC's inspectors through timely and complete investigations of alleged Animal Welfare Act violations. Like AC, IES has experienced severe erosion in its purchasing power; unlike AC, however, it has not begun a recovery from the resulting erosion in its programs. In 2000, it had only 56 investigators, down from 73 in 1992. AWA investigations have dropped from approximately 800 in the early 1990s to 329 in 2000. A relatively small increase in fiscal year 2002 of $1 million, for a total appropriation of $7.263 million, would enable IES to add much-needed field investigators, especially in areas with high concentrations of animal welfare licensees and registrants. More investigations could be completed in less time and better tracking of unlicensed facilities would be possible. Because IES has other responsibilities unrelated to its role in AWA enforcement, we respectfully request that the following report language also be included so as to avoid confusion within the division:

"The Committee directs that the $1 million of additional funds for Investigative and Enforcement Services be used for enhanced enforcement of the Animal Welfare Act."

—An important resource for assisting research institutions in complying with the AWA is the Animal Welfare Information Center, which serves as a clearinghouse and education resource for all individuals involved in the care and use of animals for experimentation. However, its $750,000 appropriation is unchanged since AWIC's creation in 1985. With an additional $400,000 in fiscal year 2002, for total spending of $1.150 million, the Center could, among other things, conduct more user workshops, develop web-based training, and expand its website content and improve the search engine to maximize access to the data available.

We thank the subcommittee for this opportunity to express our support for this modest re-quest, one that is very small in the context of the department's budget but large in its ability to sustain and advance the progress in AWA enforcement that Congress has made possible in the past two years.

COALITION FOR APHIS ANIMAL CARE APPROPRIATIONS FISCAL YEAR 2002 BUDGET REQUEST FOR ANIMAL WELFARE ACT ENFORCEMENT

Animal Care (Animal and Plant Health Inspection Service)

Fiscal year 2002—$14.500 million (Needed increase of $2.4 million)

Between fiscal year 1992 and fiscal year 1999, the appropriation for the Animal Welfare program under Animal Care remained stagnant, which meant a decrease in spending power. The number of inspectors responsible for nearly 10,000 sites fell from 88 to 64. Inspections dropped precipitously, from nearly 18,000 to 9,000. With respect to commercial dog breeders alone—some of the most problematic of licensees and the area where many unlicensed facilities operate—the average rate of inspection fell from three per year to one, which includes the average of four to eight visits required by noncompliant facilities. Audits by the Office of Inspector General found that "APHIS did not ensure all sites are periodically inspected" and "did not perform all required reinspections." A 1998 audit found that "of 221 sites used by 3 airlines in one APHIS region, only 32 percent had been inspected since January 1995." In the meantime, problems during air travel continue to result in the death, injury, and loss of animals.

In Fiscal Year 2000 and 2001, the Animal Welfare portion of Animal Care's budget rose by a cumulative $3 million, to $12.167 million. This increase has allowed a strengthening in the number of inspectors to 80 and a slow recovery in the num-

ber of annual inspections (although in fiscal year 2000 the number still went down, it slowed considerably and actually went up in the last half of the year as the new staff went out into the field; just over 10,000 inspections are projected for fiscal year 2001). Animal Care has initiated a more vigorous enforcement effort directed at "puppy mills" that are in chronic violation of the law, as well as at those not licensed at all.

These improvements are long overdue and most welcome and demonstrate the effective use to which Animal Care is putting its increased funding. They also show the tremendous need that remains. In order to ensure that all sites are visited at least once annually and all noncompliant facilities receive the needed follow up, AC should be conducting at least 17,000 compliance inspections per year. (AC also carries out over 1,000 prelicensing and preregistration inspections annually.) APHIS also expects—and indeed, is already seeing—a rise in the number of airline-related incidents it must investigate as a result of new reporting requirements mandated in the FAA Reauthorization Act (Public Law 106– 181, Section 710).

A $2.4 million increase in fiscal year 2002, for a total appropriation of $14.5 million, would enable AC to maintain all current AWA activities; strengthen its field staff by hiring, training, and equipping an additional 12 inspectors; increase AWA inspections to approximately 11,600 and improve follow-up inspections to verify correction of violations; increase searches for unlicensed and unregistered operations and other illegal activities; handle Animal Welfare Act complaints more quickly; expand programs for regulated industries; and implement internal audits and inspector quality reviews.

Investigative and Enforcement Services (Animal and Plant Health Inspection Service)

Fiscal year 2002—$7.263 million (Needed increase of $1 million)

APHIS's Investigative and Enforcement Services provides crucial support to Animal Care's inspectors (in addition to three other APHIS divisions) through timely and complete investigations of alleged Animal Welfare Act violations. IES staff perform a variety of critical functions, such as conducting investigations; tracking unresolved cases; coordinating investigative efforts within APHIS and with other Federal and State agencies; and training APHIS inspectors in documenting violations and gathering evidence.

As with AC, ten years of static budgets have eroded IES's purchasing power, resulting in a substantial reduction in force, from 73 investigators in 1992 to 56 in 2000. Only 329 AWA investigations occurred in 2000, a 58 percent drop from a yearly high of 800 in the early 1990s. The average time needed to complete an investigation in 2000 was about 140 days; in the early 1990s, it was 60 days. Clearly the budget shortfalls during the last decade have had a serious detrimental impact on IES's operations, which in turn adversely affects the health Coalition for APHIS ANIMAL CARE Appropriations Page 4 and well-being of regulated animals, who may not receive relief until a case is resolved. Moreover, the deterrent effect of a sanction is severely diminished when action is not taken soon after the violation.

IES's fiscal year 2001 budget is insufficient to keep up with the projected growth in demand for its investigative and enforcement services in the next few years as a result of the addition of 250 inspectors to Plant Protection and Quarantine, and the addition of a total of 35 inspectors to Animal Care between Fiscal Year 2000 and 2002.

Because IES has fallen so far behind, the modest increase of $400,000 in the IES budget for fiscal year 2001 was insufficient to cover current program activities; most of it was immediately absorbed by cost of living increases. The APHIS Administrator made a one-time transfer to allow IES to fill critical vacancies in the central part of the country.

An increase of $1 million in fiscal year 2002, for a total appropriation of $7.26 million, will enable IES to fill a critical vacancy for an enforcement specialist and continue to support the four field investigator positions now temporarily funded through the APHIS Administrator, as well as add four new field positions strategically placed in areas with high concentrations of animal welfare licensees and registrants. With these additional funds, other improvements in IES functions would occur, including:

—Reducing time to complete investigations;
—Allowing investigators to accompany Animal Care staff to noncompliant facilities;
—Deploying "quick-response" teams to respond to high-priority violations;
—Implementing electronic case report format to accelerate case routing and processing;
—Increasing tracking of unlicensed operators.

With this additional funding, IES would be able to respond more quickly to the growing number of new animal care violation cases and to enhance enforcement efforts directed toward protecting the welfare of animals under the Animal Welfare Act.

The Animal Welfare Information Center (Office of Research, Education and Economics/National Agricultural Library)

Fiscal year 2001—$750,000

Fiscal year 2002—$1.150 million (Needed increase of $400,000)

The Animal Welfare Information Center (AWIC) was created by legislative mandate in the 1985 amendment to the Animal Welfare Act, the Improved Standards for Laboratory Animals Act. The AWIC's purpose is to serve as a clearinghouse and educational resource for all individuals involved in the care and use of animals for experimentation. The Center provides information on appropriate care for animals including minimization of pain and distress, preventing unintended duplication of experiments, training for laboratory employees, legal requirements regarding the use of animals in research, and reduction and/or Coalition for APHIS ANIMAL CARE Appropriations Page 5 replacement of the use of animals in research, where possible. The website address for AWIC is http://www.nal.usda.gov/awic and users have accessed this site nearly half a million times in one year alone. It is an invaluable resource for the research community, yet its funding has remained stagnant at $750,000 since its creation more than fifteen years ago.

We are seeking a $400,000 increase in appropriations to enable the AWIC to provide much needed services. These additional monies would permit the Center to sponsor workshops in different regions of the country and to develop web-based training to educate the regulated community and thereby ensure increased compliance with the Federal law. The website would be expanded with additional material and an updated search engine to maximize access to the data available and the efficiency of obtaining the data.

Submitted on behalf of the Coalition for APHIS ANIMAL CARE Appropriations, representing regulated industry, the scientific community, humane organizations, and their members across the U.S.: The American Humane Association; The American Society for the Prevention of Cruelty to Animals; The American Veterinary Medical Association; The American Zoo and Aquarium Association; The Humane Society of the United States; National Association of Federal Veterinarians; Society for Animal Protective Legislative; Working for Animals used in Research, Drugs, and Surgery (WARDS)

PREPARED STATEMENT OF THE COALITION OF ESPCOR STATES

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to submit this testimony on behalf of the Coalition of EPSCoR States[1] regarding the U.S. Department of Agriculture Experimental Program to Stimulate Competitive Research (USDA EPSCoR). USDA EPSCoR is extremely important to agricultural research in the state of Mississippi and in our nation. I appreciate the opportunity to submit this testimony.

I would also like to extend my appreciation to you, Mr. Chairman, for your strong support of USDA EPSCoR. This important program is having a significant impact in Mississippi and in the other USDA EPSCoR states. Your support and the support of this Subcommittee have been absolutely crucial in establishing and maintaining this important program. Mr. Chairman, those of us committed to improving Mississippi's research and development capability deeply appreciate your support and your effort. Thank you for your fine work representing Mississippi in the United States Senate.

Seven Federal agencies have EPSCoR or EPSCoR-like programs, including USDA. EPSCoR works to improve our country's science and technology capability by funding activities of talented researchers in states that have historically not received significant Federal R&D funding. USDA EPSCoR was established in fiscal year 1992 with the goal of increasing the amount of agricultural research at academic institutions within states that have received limited competitive funding from USDA.

The Mississippi EPSCoR program began in 1988 with the naming of the state EPSCoR Committee by the Governor. Mississippi EPSCoR obtained its first funding in 1989 from USDA EPSCoR's sister program in the National Science Foundation.

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[1] Alabama, Alaska, Arkansas, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, North Dakota, Oklahoma, Puerto Rico, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming.

Since that time, EPSCoR has had an enormously positive impact within the state and at the four research institutions and their affiliates.

Because of the multi-institutional framework of EPSCoR and of the commitment of the state EPSCoR Committee to creating a critical mass of scientists and engineers around specific issues as well as a more fully developed statewide infrastructure, Mississippi EPSCoR has produced a stronger, more competitive research community and closer working relationships among the institutions that participate in the federal EPSCoR programs: Jackson State University, Mississippi State University, the University of Mississippi, the University of Southern Mississippi, and the University of Mississippi Medical Center.

Mr. Chairman, USDA EPSCoR is helping to improve the quality and competitiveness of agriculture research in Mississippi. Since the program was established in 1992, a number of Mississippi researchers have received USDA EPSCoR Strengthening Awards. These investigators have been located at Mississippi State University, the University of Mississippi Medical Center, and the University of Southern Mississippi. The amount of USDA research funds received by Mississippi increased by more than 500 percent between 1990 and 1996, a clear indication that Mississippi researchers are becoming more effective.

Important examples of Mississippi's research include studies in such areas as: kenaf processing, which is a potential economic opportunity for rural states; rapid detection of E coli, an important factor in food safety; and disease mechanisms in channel catfish, which impacts a significant cash crop across the southern part of the country. These projects and many, many others address issues important to rural states and to the rest of the nation. USDA EPSCoR allows researchers across our country to contribute to our economy and our agricultural research knowledge base.

USDA EPSCoR states are those whose funding ranks no higher than the 40th percentile of all states, based on a three year rolling average. The following states are eligible: Alaska, Arkansas, Connecticut, Delaware, Hawaii, Idaho, Kentucky, Maine, Mississippi, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Rhode Island, South Carolina, South Dakota, Utah, Vermont, West Virginia, Wyoming, and the Commonwealth of Puerto Rico. Let me stress that EPSCoR relies on rigorous merit review in order to ensure that it funds only high-quality research.

USDA makes four types of competitive awards through USDA EPSCoR: Research Career Enhancement Awards, Equipment Grants, Seed Grants, and Strengthening Standard Research Project Awards. Proposals must be related to the program priorities of the National Research Initiative Competitive Grants Program, which address critical issues facing agriculture today.

—Research Career Enhancement Awards help faculty enhance their research capabilities by funding sabbatical leaves. Applicants may not have received a NRICGP competitive research grant within the past five years.

—Equipment Grants strengthen the research capacity of institutions in USDA EPSCoR states. Each request shall be limited to one major piece of equipment within the cost range of $10,000–$250,000. The grant cannot exceed 50 percent of this cost or $50,000, whichever is less. The principal investigator for this grant is responsible for securing non-Federal matching funds.

—Seed Grants enable researchers to collect preliminary data in preparation for applying for a standard research grant. Seed Grant awards are limited to a total cost of $75,000, including indirect costs, for two years and are non-renewable. Applicants must indicate how the research will enhance future competitiveness in applying for standard research grants.

—Strengthening Standard Research Project Awards fund standard research projects of investigators who have not received a NRICGP grant within the past five years.

Through USDA EPSCoR, Mississippi and the other USDA EPSCoR States contribute more effectively to our nation's science and technology capability, and help provide our country with needed, high-quality, peer-reviewed research. This program allows all regions of our country to contribute to our nation's science and technology capability while allowing flexibility to meet regional research needs. USDA EPSCoR is a sound investment of taxpayer dollars.

Mr. Chairman, the Subcommittee has for several years directed USDA to set aside 10 percent of USDA NRICGP funds for USDA EPSCoR. Those funds have provided significant opportunity and significant success in Mississippi and the other EPSCoR states. I request that the Subcommittee once again include report language directing USDA to set aside 10 percent of its NRI competitive grant funds in fiscal year 2002 for an EPSCoR program. These funds will allow the EPSCoR states to continue providing for the agricultural research needs of rural America and of our nation.

I thank the Subcommittee for the opportunity to submit this testimony.

PREPARED STATEMENT OF THE COALITION FOR FOOD AID

Mr. Chairman, on behalf of the members of the Coalition for Food Aid, I respectfully submit for the record this statement supporting a total fiscal year 2002 program level of $1.1 billion for the Public Law 480 ("Food for Peace") program. Although this will only make up $83,000,000 of the $673,000,000 cut in Public Law 480 that has occurred since fiscal year 1993, it will at least bring the program closer to its program level of fiscal year 1997 and 1998. Within the Public Law 480 budget, we urge that the title II program be appropriated $887,000,000, a $50,000,000 increase over the fiscal year 2001 appropriations, but $40,000,000 less than the actual fiscal year 2001 title II allocation. We are also seeking Committee Report language to encourage improved U.S. Agency for International Development (USAID) and U.S. Department of Agriculture (USDA) administration of food aid programs.

The members of the Coalition are private voluntary organizations and cooperatives (jointly referred to as "PVOs") that develop and implement food aid programs overseas, including title II programs. We are very concerned about the decline in Public Law 480. In fiscal year 1993, Public Law 480 provided 6 MMT; in fiscal year 2001 it will only provide 2.9 MMT.

For PVOs, it is not just a matter of how much food aid is provided—it is how this food is used. Food aid is more than a hand out of U.S. grain, oilseed and dairy products, dry peas, beans and lentils, and other agricultural products. When linked with human and economic development activities that are developed and implemented by PVOs, food aid can have a lasting benefit. This makes title II a very effective program.

FOOD AID IS NEEDED

For developing countries that are strapped with debt and cannot afford to import adequate amounts of food to meet the nutritional needs of their populations, food aid is very important. According to the United Nations Food and Agricultural Organization report, "The State of Food and Agriculture 1998," approximately 828,000,000 people are chronically undernourished in the world. While no region is immune to hunger, the vast majority of these people live in 87 low-income, food-deficit countries. The USDA Economic Research Service reports that about 15 MMT of food aid is needed a year to meet the "food gap" in the 60 countries that are considered to be least developed and reliant on food imports.

Hunger has many causes and manifestations, but is most often associated with poverty and lack of empowerment. In developing countries, where poverty is endemic, employment opportunities are lacking, governments are unable to provide basic health and education services or sanitation and clean water due to low revenues and high debt burdens, agricultural productivity and marketing systems are usually weak and under-performing, and many people struggle just to meet their basic needs.

During the Uruguay Round Trade Agreement negotiations, it was acknowledged that low-income, net food-importing countries often have hard currency limitations and cannot afford to meet their food needs through commercial imports. Their need for food aid was expected to increase as the availability of subsidized commercial commodities decreased. Because of this, the Ministers declared that donor countries would seek to increase food and agricultural aid to these low-income countries.

Emergencies abroad also require food aid interventions. Recent events dramatically show the need—severe human and property losses due to hurricanes in and earthquakes in Ecuador and India, and ongoing emergencies in Africa caused by drought and war. These disasters compound the suffering of the poor, erase the economic progress made by struggling, developing countries and thrust millions of low-income, and even middle-income, families into poverty.

RESPONSIBLE USE OF US RESOURCES

The essence of US food aid programs is the expression of American good will through "people-to-people" programs. American farmers produce the food, American businesses process, package and transport the food, and American PVOs make sure it is used properly and effectively. PVOs target areas of need, establish programs in cooperation with local communities and institutions, and provide efficient management.

PVOs are supported by the American public through contributions and are accountable to their donors. When they receive food and cash assistance from the U.S.

Government, they must account for the use of the resources and are audited and evaluated according to U.S. Government procedures. They have established mechanisms for food monitoring and reporting from point of departure from the U.S. to the ultimate recipient. In the case of monetization (commodity sales and the use of funds for pre-approved program activities) or if funds have been provided for program support, itemized records of the use of such funds are maintained. They also keep records to assess the ultimate impact of the program on the intended beneficiaries.

EFFECTIVE PROGRAMS FOR LASTING BENEFITS

Food aid can tackle the root causes of hunger in many ways. It is not accomplished just by distributing U.S. commodities—it takes thoughtful planning and outreach to make sure these programs help people to help themselves. There are many examples. Nutritious foods along with immunization and health care are provided during critical growth periods for mothers and children. Infrastructure and sanitation in poor communities are improved by giving food as payment for work on sewage and water systems. Land use and conservation are enhanced when food is provided as an incentive for community participation in reforestation and land conservation projects. Agricultural productivity and incomes are improved by selling donated food and then using the sales proceeds to finance agricultural, small business and credit programs.

One innovative approach to food aid programming is monetization—the sale of donated commodities in poor, food deficit countries and the use of the sales proceeds for such things as (1) the distribution of food to pregnant women, mothers, children and others; (2) purchasing equipment, services and supplies to enhance the impact of food-for-work, school feeding or child and maternal health care programs; and (3) supporting programs that help improve agriculture productivity, marketing, post-harvest storage and processing or provide employment and business opportunities to increase incomes of the poor. The process of monetization itself can stimulate wider participation of traders in the market of the recipient country, thereby strengthening the free market system. The sales transactions are carefully planned to avoid interference in commercial trade or local production and marketing.

LINKAGES TO U.S. AGRICULTURE: AID TO TRADE

In contrast to developing countries the U.S. agricultural sector is the most productive in the world. A great part of the American tradition is to lend a helping hand to those less fortunate. The United States has used its agricultural bounty to help others through food aid programs. The donations have a positive impact on the U.S. economy, creating business for farmers, food processors, packaging companies, railroads, ports and shipping companies.

Food aid is one intervention in a range of programs that can lead from aid to trade. Many of the countries where PVOs operate have not been analyzed or targeted by U.S. agricultural organizations since they are low income and are not current targets for commercial sales. Yet, there is growing interest among agricultural organizations to explore how food aid can be integrated into their long-term planning.

In the short term food aid provides an additional market for U.S. goods. There is a long term benefit, as well. If properly planned, food aid programs promote "food security"—the ability of people to produce, to buy or otherwise to access enough food to meet their nutritional needs. As a family improves economically, it can afford to buy more and as a developing country improves its economic situation, the demand for food and higher-valued food increases. Thus, there are linkages between food aid programming and future market development.

History has shown that U.S. food aid can be the foundation for trade. Today, 40 percent of our commercial agricultural exports are sold to countries that were food aid recipients.

Agricultural organizations cooperate in different ways with PVOs. Some provide information about their products and respond to questions by PVOs about the efficacy of using a particular commodity. Others directly assist or work with a PVO to conduct market analyses and to develop monetization plans in a target country.

As an example, the U.S. soybean producers, through their contributions to the United Soybean Board (USB) and state soybean boards, initiated a collaborative effort with PVOs to identify the best uses for donated soybean products in developing countries. The purposes are (1) to provide soybeans, soybean meal and soybean oil to countries that need these products, (2) to have a long-term benefit by integrating the proceeds from the sales of these products into economic and social development programs implemented by PVOs, and (3) to identify opportunities to use soy protein

products to improve the nutritional quality of foods available in a target country. PVOs and USB have been working together to plan effective programs that use food aid in ways that can have a benefit on the recipient country's economy and a nutritional benefit to targeted populations.

TITLE II FUNDING INCREASE NEEDED

The fiscal year 2001 expenditures for title II will exceed appropriations by $90,000,000. These extra funds are carryovers and transfers from other accounts. USDA's budget submission states that in fiscal year 2002 such carryovers and transfers can not be assumed.

In fiscal year 2001, USAID asked PVOs to reduce commodity levels for several ongoing programs because of budget shortages. Thus, even with the transferred funds that increased the total program level for title II, cuts were made in ongoing programs. Since developing a title II proposal is a very lengthy, costly and in-depth process, when USAID states that it has limited resources or wants to limit the number of programs it approves, PVOs are hesitant to draft proposals to start new programs. USAID also places constraints on PVOs by making it difficult to develop and to gain approval of certain types of programs, such as food for education and HIV/AIDS programs.

Thus, without increased appropriations, title II actual expenditures are very likely to drop in fiscal year 2002 and valuable programs that reduce malnutrition and improve the availability of food in poor households will be cut. We therefore ask you to appropriate $887,000,000 for title II, which will provide $50,000,000 more than the fiscal year 2001 appropriations, and about 125,000 MT in additional food aid.

REFORMING FOOD AID PROGRAM ADMINISTRATION

USAID's administration of title II programs is through an unwieldy and constantly changing set of regulations, guidelines, policy announcements, handbooks and individual program officer decision-making. At USDA, the process is murky and unpredictable for Food for Progress and surplus disposal programs. There are some disturbing trends in USDA policy governing surplus disposal under section 5(d) of the Commodity Credit Corporation (CCC) Charter Act and the Section 416 program, including the way the fiscal year 2001 Global Food for Education Initiative ("GFE") is being managed. There is little or no consultation between USDA and PVOs about the program approval criteria or elements for a successful project, even though many PVOs can offer a great deal of help due to years of hands-on, field experience. The review process used by USDA is not transparent and changes are made in program rules midstream, after proposals have been developed to meet the program rules that were originally published.

PVOs try to navigate this administrative maze, but it is exhausting and takes away from their ability to target programs to meet local needs.

U.S. PVOs should be considered partners in U.S. food aid. Reforms are needed that will enhance the positive impacts of food aid by streamlining administration and giving PVOs greater flexibility to pick the right commodity for the right use, supporting monetization as a valuable method for food distribution and strengthening economies, providing flexibility for a PVO to develop the type of project that would be most appropriate for the local setting and circumstances, and focusing on the use of food as a resource for growth and development. User-friendly program guidance and flexibility for PVOs to adapt a program to meet the changes encountered during the implementation phase are necessary.

If a PVO has demonstrated the capability to conduct programs, the administrative agency should give the PVO flexibility to develop a program that responds to local needs without trying to micromanage PVO decisions. This would give PVOs greater flexibility to make programmatic changes as they work to achieve program objectives. PVO programs are audited according to U.S. Government-proscribed procedures, are subject to U.S. government audit and are independently evaluated. Besides a high level of accountability, the value added by a PVO is its ability to develop a program that meets local needs and to work directly with communities, institutions and people in poor countries to make lasting changes.

Mr. Chairman, thank you for this opportunity to submit testimony on Public Law 480 and other food aid programs. We appreciate your support for food aid over the years and seek your continued help to maintain funding for this program.

PREPARED STATEMENT OF THE COALITION TO PROMOTE U.S. AGRICULTURAL EXPORTS

As members of the Coalition to Promote U.S. Agricultural Exports, we commend the Chairman and members of the Subcommittee for their interest and support of U.S. agriculture and express our appreciation for this opportunity to share our views.

The Coalition to Promote U.S. Agricultural Exports is an ad hoc coalition of over 80 organizations, representing farmers and ranchers, cooperatives, small businesses, regional trade organizations, and the State Departments of Agriculture (see attached). We believe the U.S. must continue to have in place policies and programs that help maintain the ability of American agriculture to compete effectively in a global marketplace still characterized by subsidized foreign competition.

Farm income and agriculture's economic well-being depend heavily on exports, which account for one-third or more of domestic production, provide jobs for millions of Americans, and make a positive contribution to our nation's overall trade balance. In 2001, U.S. agriculture exports are projected to be around $53 billion, down $7 billion from 1996. This is caused by a combination of factors, including continued subsidized foreign competition and related artificial trade barriers. U.S. agriculture's trade surplus is also expected to be about $13 billion, down over 50 percent from 1996, with continued low commodity prices also forecast.

According to recent USDA information, the EU and other foreign competitors are outspending the U.S. by a factor of 20 to 1 with regard to the use of export subsidies and other expenditures for export promotion. In 1998 (the most recent year for which data is available), in addition to spending $6 billion in export subsidies, our leading foreign competitors spent a combined $1 billion on various activities to promote their exports of agricultural, forestry, and fishery products, including some $379 million by the EU.

According to USDA, spending by these competitor countries on market promotion increased by 50 percent over the 1995–98 time period, while U.S. spending remained flat. We have no reason to believe that this trend has changed since then. Furthermore, almost all of this increase has been directed to the high-value and consumer-ready product trade.

Information compiled by USDA also shows that such countries are spending over $100 million just to promote sales of their products in the United States. In other words, they are spending more to promote their agricultural exports to the United States, than the U.S. currently spends ($90 million) through MAP to promote American-grown and produced commodities worldwide! In fiscal year 1999, the U.S. recorded its first agricultural trade deficit with the EU. In fiscal year 2000, that trade deficit nearly doubled to $2 billion.

Because market promotion is a permitted "green box" activity under World Trade Organization (WTO) rules, with no limit on public or producer funding, it is increasingly seen as a centerpiece of a winning strategy in the future trade battleground. Many competitor countries have announced ambitious trade goals and are shaping export programs to target promising growth markets and bring new companies into the export arena. European countries are expanding their promotional activities in Asia, Latin America, and Eastern Europe. Canada, Australia and New Zealand have also sharply bolstered their export promotion expenditures in recent years.

As the EU and our other foreign competitors have made clear, they intend to continue to be aggressive in their export efforts. For this reason, we believe the Administration and Congress should immediately strengthen funding for MAP and other export programs, and ensure that such programs are fully and aggressively utilized. Since MAP was originally authorized, funding has been gradually reduced from a high of $200 million to its current level of $90 million-a reduction of more than 50 percent. Again, given what our foreign trade competitors are doing, we believe it's time to restore funding for this vitally important program up to its original level. American agriculture is the most competitive industry in the world, but it can not and should not be expected to compete alone against the treasuries of foreign governments.

In order to reverse the decline in funding over the past decade for a number of our agricultural export programs, the Coalition is strongly supporting legislation (S. 366) introduced by Senators Murray (D-WA) and Craig (R-ID), et al. that would authorize no less than $90 million and up to $200 million per year for MAP. The bill would also provide a minimum of $35 million for the Foreign Market Development (FMD) Cooperator Program for cost-share assistance to help boost U.S. agriculture exports. Further, it would allow up to 50 percent of available funds under the Export Enhancement Program (EEP) to be used for related market development and promotion activities.

Both MAP and FMD are administered on a cost-share basis with farmers and other participants required to contribute up to 50 percent of their own resources. These programs are one of the few tools specifically allowed under the Uruguay Round Agreement to help American agriculture and American workers remain competitive in a global marketplace still characterized by subsidized foreign competition. By any measure, they have been tremendously successful and extremely cost-effective in helping maintain and expand U.S. agricultural exports, protect American jobs, and strengthen farm income. In addition to helping achieve these objectives, enactment of S. 366 would provide needed flexibility to respond to changing market conditions and capitalize on potential new market opportunities. It would also send a powerful message to our foreign competitors and strengthen the U.S. negotiating position in future trade talks.

For all these reasons, we want to emphasize again the need to help strengthen the ability of U.S. agriculture to compete effectively in the global marketplace. As a nation, we can work to export our products, or we can export our jobs. USDA's export programs, such as MAP and FMD, are a key part of an overall trade strategy that is pro-growth, pro-trade and pro-job.

Again, as members of the Coalition to Promote U.S. Agricultural Exports, we appreciate very much this opportunity to share our views and we ask that this statement be included in the official hearing record.

PREPARED STATEMENT OF THE COLORADO RIVER BASIN SALINITY CONTROL FORUM

The Congress concluded that the Colorado River Basin Salinity Control Program should be implemented in the most cost-effective way and realizing that agricultural on-farm strategies were some of the most cost-effective strategies authorized a program for the Department of Agriculture. With the enactment of the Federal Agriculture Improvement and Reform Act of 1996 (FAIRA), the Congress concluded that the Salinity Control Program could be most effectively implemented as one of the components of the Environmental Quality Incentives Program. Since the enactment of FAIRA, the Salinity Control Program has not been funded at a level adequate to ensure that salinity damages from the use of Colorado River water in the United States will not increase.

The Salinity Control Program has been subsumed into the EQIP program without the Secretary of Agriculture giving adequate recognition to the requirement in Section 202(c) in the Colorado River Basin Salinity Control Act to carry out salinity control measures. Water users hundreds of miles downstream are the beneficiaries of this water quality improvement program. Agriculturalists in the Upper Basin, however, see local benefits as well as downstream benefits and have submitted cost-effective proposals to the State Conservationists in Utah, Wyoming and Colorado. Priority Area proposals for EQIP funding are ranked in each state under the direction of the Natural Resources Conservation Service (NRCS) State Conservationist. Existing ranking criteria, however, does not consider downstream benefits (particularly out of state benefits) when proposals are being evaluated.

After longstanding urgings from the states and directives from the Congress, the Department has concluded that this program is different than small watershed enhancement efforts common to the EQIP program. In this case, the watershed to be considered stretches more than 1,200 miles from the river's headwater in the Rocky Mountains to the river's terminus in the Gulf of California in Mexico. The Department has now determined that this effort should receive a special fund designation and has appointed a coordinator for this multi-state effort.

The NRCS has earmarked funds to be used for the Colorado River Basin Salinity Control Program and has designated this an area of special interest. This was done at the urging of this Senate subcommittee. The Forum appreciates the efforts of the subcommittee in this regard. Since the designation, there has been earmarked about $4.5 million annually. The states added about $1.5 million in up-front cost-sharing and local farms, we estimate, contributed about another $2.0 million. The plan for water quality control of the river prepared by the Forum, adopted by the states, and approved by the EPA requires that the USDA portion of the effort to be funded at $12 million. Hence, there is a shortfall from the Federal designated funds of about $7.5 million. State and local cost-sharing is triggered by the Federal appropriation. The entire effort is only at about 40 percent of what is needed. The USDA indicated that a more adequately funded the total national EQIP program would result in more funds being allocated to the salinity control program. The Basin states have cost sharing dollars available to participate in on-farm salinity control efforts. The agricultural producers in the Upper Basin are waiting for their applications to be considered so that they might also cost share in the program.

The Forum urges that this subcommittee support the funding of more than $200 million from the CCC in fiscal year 2002 for EQIP. The Forum also requests that this subcommittee advise the Administration that $12 million of these funds be designated for the Colorado River Basin Salinity Control Program.

OVERVIEW

The Colorado River Basin Salinity Control Program was authorized by Congress in 1974. The Title I portion of the Colorado River Basin Salinity Control Act responded to commitments that the United States made, through a minute of the International Boundary and Water Commission, to Mexico with respect to the quality of water being delivered to Mexico below Imperial Dam. Title II of the Act established a program to respond to salinity control needs of Colorado River water users in the United States and to comply with the mandates of the then newly legislated Clean Water Act. Initially, the Secretary of the Interior and the Bureau of Reclamation were given the lead Federal role by the Congress. This testimony is in support of funding for the Title II program.

After a decade of investigative and implementation efforts, the Basin states concluded that the Salinity Control Act needed to be amended. Congress agreed and revised the Act in 1984. That revision, while keeping the Department of the Interior as lead coordinator for Colorado River Basin salinity control efforts, also gave new salinity control responsibilities to the Department of Agriculture. Congress has charged the Administration with implementing the most cost-effective program practicable (measured in dollars per ton of salt removed). It has been determined that the agricultural efforts are some of the most cost-effective opportunities.

Since Congressional mandates of nearly three decades ago, much has been learned about the impact of salts in the Colorado River system. The Bureau of Reclamation has conducted studies on the economic impact of these salts. Reclamation recognizes that the damages to United States' water users alone are hundreds of millions of dollars per year.

The Colorado River Basin Salinity Control Forum (Forum) is composed of Gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. The Forum has become the seven-state coordinating body for interfacing with Federal agencies and Congress to support the implementation of a program necessary to control the salinity of the river system. In close cooperation with the Federal agencies and under requirements of the Clean Water Act, every three years the Forum prepares a formal report analyzing the salinity of the Colorado River, anticipated future salinity, and the program necessary to keep the salinities at or below the levels measured in the river system in 1972.

In setting water quality standards for the Colorado River system, the salinity concentrations measured at Imperial, and below Parker, and Hoover Dams in 1972 have been identified as the numeric criteria. The plan necessary for controlling salinity has been captioned the "plan of implementation." The 1999 Review, Water Quality Standards for Salinity, Colorado River System, includes an updated plan of implementation. In order to eliminate the shortfall in salinity control resulting from inadequate Federal funding for the last several years for USDA, the Forum has determined that implementation of the salinity control program needs to be accelerated. The level of appropriation requested in this testimony is in keeping with the agreed to plan. If adequate funds are not appropriated, State and Federal agencies involved are in agreement that damage from the high salt levels in the water will be widespread and very significant in the United States and Mexico.

STATE COST-SHARING AND TECHNICAL ASSISTANCE

The authorized cost sharing by the Basin states, as provided by FAIRA, was at first difficult to implement as attorneys for USDA concluded that the Basin states were authorized by FAIRA to cost share in the effort, but the Congress had not given USDA authority to receive the Basin states' funds. After almost a year of exploring every possible solution as to how the cost sharing was to occur, the states, in agreement with the Bureau of Reclamation, with state officials in Utah, Colorado and Wyoming and with NRCS State Conservationists in Utah, Colorado and Wyoming, agreed upon a "parallel" program wherein the states' cost sharing funds will be used. We are now several years into that program and, at this moment in time, this solution to how cost sharing can be implemented appears to be satisfactory.

With respect to the states' cost sharing funds, the Basin states felt that it was most essential that a portion of the program be associated with technical assistance and education activities in the field. Without this necessary support, there is no advanced planning, proposals are not well prepared, assertions in the proposals cannot be verified, implementation of contracts cannot be observed, and valuable

partnering and education efforts cannot occur. Recognizing these values, the "parallel" state cost sharing program expends 40 percent of the funds available on these needed support activities. Initially, it was acknowledged that the Federal portion of the salinity control program funded through EQIP was starved with respect to needed technical assistance and education support. The Forum is encouraged with the Administration's determination that 19 percent of the EQIP funds will be used for technical assistance but observes that this is still not adequate funding for the technical assistance needed. The Forum urges this subcommittee to appropriate adequate funds for these support activities rather than to direct NRCS to borrow these needed funds from the CCC.

PREPARED STATEMENT OF THE COLORADO RIVER BOARD OF CALIFORNIA

Your support and leadership are needed in securing adequate funding for the U.S. Department of Agriculture with respect to it's on-farm Colorado River Basin Salinity Control Program for fiscal year 2002. This program has been carried out through the Colorado River Basin Salinity Control Act, since it was enacted by Congress in 1974. With the enactment of the Federal Agricultural Improvement and Reform Act (FAIRA) in 1996, specific funding for salinity control projects in the Colorado River Basin were eliminated from the Federal budget, and aggregated into the newly created Department of Agriculture Environmental Quality Incentive Program (EQIP) as one of its program components. With that action, Congress concluded that the salinity control program could be more effectively implemented as one of the components of the EQIP. Prior to FAIRA, the Department of Agriculture had specific line item funding for salinity control projects as high as $14.7 million, but in recent years the level of appropriations have been reduced to between $3.4 and $5.1 million which is inadequate to ensure that water quality standards in the Colorado River, with regards to salinity can be met. California's Colorado River water users are presently suffering economic damages in the hundreds of million of dollars per year due to the river's salinity.

The Colorado River Board of California (Colorado River Board) is the state agency charged with protecting California's interests and rights in the water and power resources of the Colorado River System. In this capacity, California along with the other six Basin States through the Colorado River Basin Salinity Control Forum (Forum), the interstate organization responsible for coordinating the Basin States' salinity control efforts, established numeric criteria, in June 1975, for salinity concentrations in the River. These criteria were established to lessen the future damages in the Lower Basin States of Arizona, California, and Nevada, as well as assist the United States in delivering water of adequate quality to Mexico in accordance with Minute 242 of the International Boundary and Water Commission. The goal of the Colorado River Basin Salinity Control Program is to offset the effects of water resource development in the Colorado River basin after 1972 rather than to reduce the salinity of the River below levels that were caused by natural variations in river flows or human activities prior to 1972. To maintain these levels, the salinity control program must remove 1,480,000 tons of salt loading from the River by year 2015. In the Forum's last report entitled 1999 Review, Water Quality Standards for Salinity, Colorado River System released in June 1999, the Forum found that additional salinity control measures were necessary to meet the implementation plan that had been adopted by the seven Colorado River Basin States and approved by the Environmental Protection Agency. Since implementation of the EQIP, Federal allocations by the Department of Agriculture have not equaled the Forum's identified funding needs for the Department of Agriculture's portion of the program. The Forum identified a "backlog" of salinity control measures which stands at 384,000 tons. This is in addition to future controls designed to lower the River's salt loading by 372,000 tons by 2015 in order to meet the established salinity standards. The Forum has presented testimony to Congress in which it has states that the rate of implementation of the program beyond that requested by the past President is necessary.

The President's request for funding the Department of Agriculture in fiscal year 2002 is unknown at this time, however, the Colorado River Board urges that the subcommittee support funding of more than $200 million from the Commodity Credit Corporation in fiscal year 2002 for EQIP. Of the amount to be appropriated for EQIP, the Colorado River Basin Salinity Control Forum, at its meeting in Henderson, Nevada, in October 2001, recommended a funding level of $12.0 million for on-farm salinity control in the Colorado River Basin for fiscal year 2002 to maintain water quality consistent with the established standards. This subcommittee should advise the Administration that $12 million of these funds be designated for the Col-

orado River Basin Salinity Control Program. These Federal dollars, if earmarked, would be augmented by state cost sharing of 30 percent with an additional 30 percent provided by the agricultural producer with whom the Department of Agriculture contracts for implementation of salinity control measures. The Colorado River Board supports the recommendation of the Forum. The salinity control program has proven to be a very cost effective approach to help mitigate the impacts of higher salinity. Continued Federal funding of the program is essential.

In addition, the Colorado River Board recognizes that the Federal government has made significant commitments to the Republic of Mexico and to the seven Colorado River Basin States with regard to the delivery of quality water to Mexico. In order for those commitments to be honored, it is essential that in fiscal year 2002 and in future fiscal years, the Congress provide funds to the Department of Agriculture to allow it to continue providing needed technical support to the producers for addressing salinity control in the Basin.

The Colorado River is, and will continue to be, a major and vital water resource to the 17 million residents of southern California as well as throughout the Lower Colorado River Basin. As stated earlier, preservation of its quality through an effective salinity control program will avoid the additional economic damages to users of Colorado River water in California, Arizona, and Nevada.

The Colorado River Board greatly appreciates your support of the Federal/State Colorado River Basin Salinity Control Program and again asks for your assistance and leadership in securing adequate funding for this program.

PREPARED STATEMENT OF COLORADO STATE UNIVERSITY

Mr. Chairman, Members of the Subcommittee, my name is Anthony Frank. I am Vice President for Research and Information Technology at Colorado State University, located in Fort Collins, Colorado. I appreciate this opportunity to submit my testimony for the record of proceedings on the fiscal year 2002 Department of Agriculture Budget. I am happy for this opportunity to thank you for your previous support of the Russian Wheat Aphid research program and the Center for Economically Important Infectious Animal Diseases. I would like to update you on these two programs.

As you know, this Committee has provided federal funds to support Russian Wheat Aphid (RWA) research at Colorado State University. The Russian Wheat Aphid research program is a five-year $1.25 million ($250,000 per year) initiative to develop methodologies that will control the aphid and diminish the significant costs of lost wheat production and insecticide applications in western wheat producing areas. We are entering our final year of research activities for which we require federal financial support.

In 1997, Colorado experienced its worst RWA infestation in 10 years, costing about $10 million in insecticide application alone. In 2000, RWA damage was widespread and especially threatening throughout the wheat growing region. This pest costs wheat producers in Colorado alone, where the RWA is especially troublesome, over $11 million per year in direct economic loss.

Through Federal, State government, and private assistance, CSU researchers have made significant progress in combating the RWA. About $1 million per year is invested in RWA research and outreach from state, university and industry sources. The most notable achievement is the creation and production of the first commercial variety of RWA resistant wheat, called "Halt." After seven years of extensive development and testing, it became available to growers for planting in the fall of 1996. Early results indicate that farmers who plant "Halt" and experience RWA infestations can save a minimum of $12 to $13 per acre. In the worst year of RWA infestation, the elimination of insecticide treatments alone would have saved Colorado farmers at least $13.8–$15 million. Since the introduction of "Halt,"four other wheat cultivars have been released: "Prairie Red," "Prowers," "Prowers 99," and "Yuma".

A long-term solution to the Russian wheat aphid problem requires the development of additional cultivars with multiple sources of resistance. The process of identifying, developing and testing takes several years. The accomplishments of this five-year program will lay a foundation for an on-going, but much less costly effort, which will continue, without federal funds, to provide growers with cost-effective, environmentally sound management of RWA into the future.

Your committee has also acknowledged the importance of research in animal infectious diseases and has supported our Center for Economically Important Animal Infectious Diseases for the past three years.

The Center for Economically Important Infectious Animal Diseases is working to prevent or control those infectious diseases that are the most economically devastating to the animal industry. Chief among these are vesicular stomatitis, bovine tuberculosis, transmissible spongiform encephalopathy (chronic wasting Importantly, the Center, working closely with local USDA and CDC laboratories, represents a significant component of our nation's ability to respond to other emerging threats to animal agriculture.

Despite the fact that vesicular stornatitis has been present since 1995, very little is known about it. The virus emerges and then disappears. It appears to be concentrated in the Southwest, Rocky Mountains and Great Plains and to affect primarily cattle, horses and swine. Scientists haven't been able to identify how the virus is transmitted, nor identify its host. And, equally important, scientists don't know if the disease can be spread to other species.

Bovine tuberculosis infects approximately 50 million cattle. It is a recognized cause of tuberculosis in humans. Tuberculosis in cattle impacts milk production, weight and reproduction. This disease costs cattlemen approximately $378 million annually. Although much progress has been made in controlling this disease in the U.S., there is still considerable threat to beef herds primarily due to the inadequate testing and quarantine of steers entering from Mexico and the lack of an effective diagnostic tool that can be used on the farm.

Chronic wasting disease is a strain of transmissible spongiform encephalopathies. "Mad cow disease" falls into this category. Chronic wasting disease has been showing up in deer and elk along the northern Front Range of Colorado. Very little is known about how this disease is transmitted or its potential for transmission to related species.

During the past three years, the Center has been involved in many research projects and is recognized nationally and internationally as the leading entity in the field of infectious animal diseases and food safety pathogens. During this time, it has made major contributions related to the following animal diseases:

Vesicular Stomatitis

—Development of a laboratory test that is better and faster for detecting VS virus in infected animals and insects.
—Use of Geographical Information Systems software to understand how the disease spreads and why some animals get the disease.
—Collection of data to determine how the virus is maintained in the environment when it is not causing disease outbreaks.

Mycobacterium bovis and Mycobacterium tuberculosis

—Development of a laboratory test that can identify a greater percentage of animals shedding the bacterium, and development of a similar laboratory test for captive elephants and other non-domestic species.

Mycobacterium avium subsp. paratuberculosis (Johne's disease)

—Development of more sensitive laboratory tests for use in young cattle so that infected animals can be removed as early as possible to decrease spread and reduce costs.

Food safety

—Determination of the optimal type and number of diagnostic tests for identifying Toxoplasma gondii in pigs in order to increase cost-effectiveness while maintaining sensitivity.

Clostridium perfringens

—Development and optimization of tests to detect C. perfringens in equine fecal samples and environmental samples.
—Identify some of potential risk factors for future development of a plan to prevent this disease in foals.

Brucella abortus

—Development and testing of new oral formulations of vaccine for use in bison and wild ungulates in Yellowstone National Park and elsewhere, as conventional intra-muscular injections are not easy to use in wild species.

Continued appropriations will enable the Center to advance its work in the following areas: (1) detection of economically critical diseases early, including the development of diagnostic tests that may be performed on the farm; (2) evaluation of prevention strategies, including vaccination programs for efficiency and cost effectiveness; (3) analysis of the impact of animal movement and trade on the spread of infectious diseases; and (4) using analytical tools, including risk assessment and

geographic information systems, determination of risk of the spread of economically critical infectious diseases.

Once again, I thank you for the financial investment you have made to the Russian Wheat Aphid research program and to the Center for Economically Important Animal Infectious Diseases and look forward to your continued support.

PREPARED STATEMENT OF COLUMBIA UNIVERSITY

Mr. Chairman, thank you for this opportunity to submit a statement for the Outside Witness Hearing Record. This statement provides a recommendation to improve and refine one of USDA's primary missions and goals relating to U.S. agriculture, the development of world supply and demand estimates for agricultural production and products.

The supply and demand analysis that USDA conducts requires the most accurate tools and mechanisms available. Columbia University's International Research Institute for Climate Prediction is recognized as the leader in climate modeling and interannual to seasonal forecasting. The IRI's partnership with USDA in would result in improved supply and demand estimates, and therefore be of immense benefit to the U.S. agricultural economy. The details of this proposed linkage are discussed below.

OBJECTIVES

(1) $1 million for the involvement of IRI analysis and expertise to utilize improved and available tools and mechanisms for foreign agricultural supply and demand estimates. (2) $1 million for support of the IRI's Center for Health and Food Security for the development of an independent institution that will focus on Africa and work cooperatively with the Federal Government in the accomplishment of USDA missions and goals.

BACKGROUND

USDA's World Supply and Demand estimates for agricultural products could utilize, but currently do not, the most sophisticated and accurate analytical tools available. The importance of advanced planning in crop production and reserve stocks in times of fluctuating foreign demand can assist the agricultural economy in maintaining financial stabilization and provide warnings to mitigate foreign famine. Foreign draught and famine, in addition to the tolls of human life and suffering, cause social and political unrest in third world countries, contributing to instability and economic hardships on third world national economies. Improved supply and demand estimates assist domestic producers and the entire agricultural economy, as well as provide the advance planning necessary to avoid or minimize damage in third world economies.

Columbia University's International Research Institute for Climate Prediction has developed the world's most accurate and long-range climate models and forecasting techniques in the areas of temperature and precipitation variability from average conditions. These two factors determine the surplus or deficit in foreign agricultural production. USDA does not currently utilize IRI analysis or input. Improvement of the accuracy of USDA's long-range supply and demand estimates could be achieved with the involvement of IRI analysis and expertise in the an effort to obtain the necessary and available tools and mechanisms for foreign agricultural supply and demand estimates.

Africa represents the most vulnerable continent to temperature and precipitation variations caused by climate forcing agents such as El Niño and La Niña. The IRI is establishing a Center for Health and Food Security that will integrate global interannual to seasonal forecasts with regional climate modeling to provide the most accurate climate forecasting and predictive analysis for private and governmental decision makers. The agricultural component of this effort is crucial to the production of USDA's supply and demand estimates, and also to key planting decisions both within the U.S. and abroad. The IRI's Center for Health and Food Security will focus on Africa and function as an independent institution that will work cooperatively with the Federal Government in the accomplishment of USDA missions and goals.

Thank you for this opportunity to submit this proposed linkage for the Subcommittee's consideration in deliberations on the fiscal year 2002 Agriculture Appropriations Bill.

PREPARED STATEMENT OF COMMUNITY MEDICAL CENTERS

Mr. Chairman and Members of the Subcommittee: My name is Dr. Philip Hinton and I am the Chief Executive Officer of Community Medical Centers in Fresno, California. Community Medical Centers is a not-for-profit, locally owned healthcare corporation that is committed to improving the health of the community. I am pleased to provide the subcommittee with a request for assistance in securing Federal monies for a critical project in the Central San Joaquin Valley that would improve healthcare delivery to the growing Hispanic and minority populations by creating a network of clinics accessible to the rural areas. These populations in the five county area of Fresno, Madera, Tulare, Kings and Mariposa face some of the most devastating and worst health outcomes in the state of California and in the nation:

—the third highest asthma mortality rate in the nation;
—the highest rates of teen pregnancy in the state;
—the highest incidence of diabetes among the Hispanic population
—late or no prenatal care for pregnant women
—greater likelihood for newborns to be of low birth weight than the rest of the state
—some of the lowest immunization rates in the nation (62 percent at age 2 versus 79 percent nationally)
—the highest rates of syphilis in the state.

These health outcomes are not acceptable and yet they exist because of the following reasons:

—*Limited access to care*
  —Low ratio of primary care providers to population. Fresno County has 178 physicians/100,000 population vs. 235/100,000 in the state.
—*Virtually no specialist care located in rural areas*
  —Isolation of rural communities from urban areas and poor public transportation.
—*Financial constraints*
  —Many people are without health insurance
  —Accessing healthcare in the urban areas results in a day's lost wages
  —Lack of childcare providers means that patients must bring their entire family with them when they visit the clinic.
—*Educational issues concerning health*
  —Lack of understanding of preventive care
  —Cultural barriers to addressing health issues before they become acute crisis
—*Language barriers*
  —Over 100 languages are spoken in the area

Coupled with high unemployment rates that are twice the state and three times the national average, and adults and children living below the poverty line hovering at 25 percent and 32 percent respectively, the statistics and indicators point to the need for aggressive action to address the tremendous health care needs of the population in this five county area.

Community Medical Centers proposes to address this health situation with a pilot project to improve the health of farm workers and residents of the rural communities who make up 41 percent of the population of the region.

Community Medical Centers has proposed developing a collaborative network that will include local healthcare providers, Federally Qualified Health Centers, county health and human services agencies, local hospitals, dentists, schools, churches and local communities. The network will work to aggressively deliver both preventive and primary health care to the people of the five county region. The new Regional Health Center on the campus of the Regional Medical Center in downtown Fresno will be the center for coordinating these activities. The new Regional Health Center is just one component of a more comprehensive, $210 million medical complex that will also include a new facility to house Level I burn and trauma services, emergency services, in-patient surgery, cardiac services and intensive care beds as well as a University of California San Francisco (UCSF) Medical Education and Research Center to house the teaching program. The Regional Health Center will deliver primary and specialty care, offer easy access to higher level care in an inpatient and outpatient setting, and access the faculty and residents of the UCSF-Fresno Medical Education Program.

This $35 million project will:

—Improve access to the rural areas by partnering with existing centers and local healthcare providers to provide access for all patients and utilize and coordinate mobile health care units to go into the areas that are under-served. In addition, provide trained bilingual personnel to qualify people for health care programs and educate them about preventive care.

—Focus on preventive care and high prevalence diseases by offering asthma education and management programs; early diagnosis, dietary and medical management of diabetes; teen pregnancy prevention programs; prenatal care; screenings for cancer, diabetes and high blood pressure; and dental and mental health services.
—Result in a healthier community by providing primary care to a significant portion of the population and reducing their dependency on hospital emergency rooms for these services; improve people's quality of life and health thereby reducing hospital admissions for asthma, diabetes, hypertension and complications associated with these diseases; reduce the number of premature births.
—Realize significant savings in medical costs by focusing on the health needs of the population and emphasizing prevention and disease management as opposed to depending on hospitalization for primary care. We predict a 20 percent decrease in emergency room visits and hospitalization that would result in a significant savings of $18 million per year.

The human statistics point to the need to address this situation now before it progresses to a crisis. Community Medical Centers is working with the County of Fresno to contribute $17.5 million of state and local monies toward this pilot project. These monies, coupled with an additional $17.5 million from the Federal government, would provide key funding support and ensure completion of this critical health care initiative facing our community.

We have identified the USDA Rural Community Facilities Loans and Grants program funded by the appropriation bill for Agriculture, Rural Development and Related Agencies as a source of funds. Because our pilot program would serve a vastly under-served rural population with significant health care needs in a five county area, we request your assistance in including a $17.5 million "soft" earmark of these funds to establish a comprehensive primary care and disease prevention program for the residents of these areas. Language in the bill's accompanying report acknowledging the Committee's understanding of our need may prompt the USDA's reviewing authorities to look more favorably on our application for program funding, an application process that we are committed to undertake.

Enclosed is a recent article in the Fresno Bee that highlights the crisis in healthcare that we are facing in the area. The emergency departments in area hospitals are overcrowded and inundated by people who could best be served in a primary care setting that we are proposing. Unless, this critical situation is addressed soon, the conditions will only worsen.

We appreciate your attention to this matter and we hope that you will favorably consider our request to improve healthcare delivery in the Central San Joaquin Valley in California.

PREPARED STATEMENT OF THE COUNCIL FOR AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING

Thank you, Mr. Chairman. I appreciate the opportunity to provide testimony again this year in support of the highly successful research, education, and extension partnership between the United States Department of Agriculture (USDA) and the Land-Grant University System.

My name is Daniel M. Dooley, Chairman of the Council for Agricultural Research, Extension, and Teaching, commonly called CARET. CARET is a national group of lay support persons working on behalf of the Land-Grant University System. The CARET group, a collaboration of farmers, ranchers and others interested in maintaining America's competitive edge, was formed a number of years ago for the expressed purpose of enhancing national support and understanding of the important role played by the land-grant colleges in the food and agriculture systems, as well as the role of this system in enhancing the quality of life for all citizens of the nation.

Each of the CARET members from across the land can share from personal experience the importance of maintaining a competitive technological edge. In my particular case, I have benefited from university research that has substantially improved production and reduced costs by limiting chemical usage.

I will not burden you with a recitation of all of the contributions that the Land-Grant University System partnership with USDA has made to America's food, fiber, and agricultural production system. I do want you to know, however, that this unique partnership has been an essential ingredient to the success of American agriculture and the health of the American public—in essence, the foundation of this nation's way and quality of life.

Suffice it to say, the Land-Grant University System is very unique and has been a critical component to the long-term success of the nation's agricultural community. It has provided technology and education enabling farmers, ranchers, and other stewards of natural resources in this country to manage their productive resources in a way that is efficient, yields the greatest and most nutritious quality and quantity of food in the world, and protects the natural environment. The contributions of the Land-Grant University System to American agriculture has had an enormous impact on the nation's economy, our balance of trade, the quality of our workforce, and the health and quality of life for every American citizen. Indeed, the greatest single investment you can make in the long-term health of the American people is to ensure that appropriate investments are made in future technology for the food and fiber system. Unfortunately, this research and education system that has given so much to the country sometimes is taken for granted.

The purpose of my testimony today is to request support for the fiscal year 2002 budget recommendations of the National Association of State Universities and Land-Grant Colleges (NASULGC) Board on Agriculture. CARET joins NASULGC in calling for a doubling of the nation's agricultural research and education funding over the next five years—$200 million in fiscal year 2002. CARET believes that this new funding will help the Land-Grant University System meet the challenges it will be called upon to address in maintaining a highly nutritious and healthy food supply, revitalizing our nation's communities (both rural and urban), cultivating an educated workforce, and protecting our natural environment. CARET also supports continued funding for the Initiative for Future Agriculture and Food Systems (IFAFS).

Although the United States has the safest food supply in the world, millions of Americans are afflicted by food-borne illnesses each year. The young, elderly, and people with compromised immune systems are the most susceptible. Estimates of the annual health care costs for these illnesses range from $2.9 billion to $7 billion. Greater investment in the agricultural research and education system could help reduce the number of food-related illnesses and costs. Additionally, great opportunities exist to utilize technology to tailor food for specific health and nutrition benefits if proper investments are made.

Conservation and economic growth require a delicate balancing act. While agriculture presents challenges to the environment, it also knows that the environment must be respected and protected. Science and education are helping the agricultural industry to protect fragile ecosystems and deal with urban expansion by developing sustainable production systems that protect the long-term productivity of essential resources. Funding of agricultural science and education programs will continue to ensure an adequate and safe food supply and the protection of our precious natural resources.

For four decades, agricultural production in the United States has enabled an unyielding string of successes in our trade balance. Today, experts project that at least $60 billion in food and raw materials—one-third of the nation's production will be sold overseas. Agriculture is one area in the nation's economy without a trade deficit. This competitive advantage should not be lost because of insufficient investments in our agricultural research and education system.

All of the technology and knowledge in the world are useless without the well-trained mind of someone to learn from it, apply it, and expand it. Undergraduate education in colleges of agriculture and life sciences is largely neglected in Federal funding. All of the nation's students need to be equipped to become leaders in our nation's workforce. Their future and the nation's future are one in the same, and the nation can ill afford to poorly invest in this critical area.

Tomorrow's science comes with a high price tag, with great advances in biotechnology, genetics, satellite imagery, and other highly technical fields looming on the horizon. Only if funding sources are adequate will new scientific investigation:

—build agricultural production efficiency and profitability

—protect the nation's environment

—revitalize and sustain our nation's communities

—bring diverse student populations into the food and agricultural sciences

The budget recommendations that are being advanced by CARET on behalf of the Land-Grant University System are the result of a broad number of stakeholder meetings and receipt of substantial input from those that benefit from the research and education activities.

It is the belief of the CARET membership that doubling of the nation's agricultural research and education funding over the next five years—$200 million in fiscal year 2002—is the only way to equip American agriculture for the 21st Century. This amount of funding will facilitate the maintenance of America's competitive edge throughout the broad range of the production, processing, distribution, and retail

system that moves commodities around the world. CARET also firmly believes that this funding level for agricultural science and education will enhance the health and welfare for our own citizenry as well as the people of the world. Certainly, we do not want the recent headlines about the food supply in the European community and other places in the world to be the future headlines in American newspapers.

So, when you go home tonight and sit down at your dinner table, just remember that you do not have to think or worry about: Will there be enough food for me and my family to eat? Will this food harm or make my family and me sick if we eat it?

However, if adequate funding for agricultural research and education is not provided now and in the future, your children and grandchildren may have to worry about these and many other questions in relation to the food and fiber that the nation produces and consumes.

Thank you for this opportunity to provide this testimony in support of the appropriations for continuing the fine work being done and the work that must be done at America's Land-Grant University System—a true national treasure!

PREPARED STATEMENT OF DEFENDERS OF WILDLIFE

On behalf of our 435,000 members and supporters nationwide, Defenders of Wildlife thanks you for the opportunity to submit testimony on the fiscal year 2002 Agriculture Appropriations bill. Defenders is a national, non-profit organization dedicated to the protection of wild animals and plants in their natural communities. We focus our efforts on the accelerating rate of extinction of species and the associated loss of biological diversity, and on habitat alteration and destruction. Consequently, we have a special interest in the U.S. Department of Agriculture's natural resource protection programs. These programs include the Wildlife Habitat Improvement Program (WHIP), the Wetland Reserve Program (WRP), the Farmland Protection Program (FPP), the Environmental Quality Incentives Program (EQIP), the Conservation Reserve Program (CRP), and the Conservation Reserve Enhancement Program (CREP). We also strongly support the proposed Conservation Security Act (CSA) because of its potential beneficial impacts on wildlife habitat and ecosystem quality.

Most farmers who volunteer to participate in the USDA's natural resource protection programs are turned away due to lack of funding. Defenders of Wildlife therefore strongly supports the fiscal year 2002 appropriation of $150 million for WHIP, $300 million for WRP, $200 million for FPP, and $550 million for EQIP, and adequate funding for other natural resource protection programs offered through the USDA. We oppose any efforts to zero-fund WHIP, WRP, and FPP in fiscal year 2002.

Effective implementation of USDA conservation programs requires increased technical assistance at the field level. Nominal funding levels for resource conservation technical assistance and research have remained practically unchanged over the last few years, despite a USDA mandate to implement more conservation programs over a broader geographical area. In real terms, Federal funding for technical assistance to deliver conservation programs, and for the research and development of new conservation technologies, has actually declined over the last ten years. This situation has resulted in the inability of reduced staffs to provide effective and efficient service to the growing numbers of producers waiting to participate in conservation programs. Defenders of Wildlife therefore encourages the fiscal year 2002 appropriation of $1,710,000 for Conservation Technical Assistance in support of USDA conservation programs.

A major constraint to improving the effectiveness and efficiency of existing USDA conservation programs is the lack of adequate monitoring and evaluation of field level projects and their impacts on natural resource quality, especially native wildlife and their habitats. Defenders of Wildlife believes that $5 million should be allocated to defining and implementing a pilot monitoring program(s) over the next two years to evaluate conservation program impacts toward achieving improved native wildlife habitat, water and air quality, and soil health. Defining and implementing a pilot monitoring program(s) would be a cooperative effort involving the United States Department of Agriculture, the United States Environmental Protection Agency, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the United States Geological Survey. The experience from this pilot effort would be used in designing a permanent monitoring and evaluation program.

Applied research is lagging behind increased regulatory requirements that mandate producers to improve the environmental and ecological performance of their operations. Defenders of Wildlife proposes that producers receive incentives for re-

search, development, and testing of new conservation management practices. Such a program would require an fiscal year 2002 appropriation of $10 million.

The Land Grant Universities and the USDA Agricultural Research Service also require increased financial support for research and development of production practices that, to the extent possible, simultaneously meet profit and production goals and reduce adverse environmental impacts on wildlife habitat, water, air, and soil resources. Defenders of Wildlife supports funding of this program at $20 million for fiscal year 2002.

In fiscal year 2002, the USDA has a tremendous opportunity to assist agricultural producers to be effective stewards of natural resources on their lands. The appropriations amounts recommended this testimony would make realization of that opportunity possible.

On behalf of Defenders of Wildlife, I thank you again for this opportunity to submit testimony.

PREPARED STATEMENT OF EASTER SEALS

Easter Seals appreciates the opportunity to report on the notable accomplishments of the USDA Cooperative State Research, Education, and Extension Service (CSREES) AgrAbility Program and request that funding for the AgrAbility Program be increased to $4.6 million in fiscal year 2002.

The AgrAbility Program is an essential, unduplicated, hands-on resource for farmers, ranchers, and farmworkers with disabilities and their families. AgrAbility is the only USDA program dedicated exclusively to helping agricultural producers with disabilities. The Secretary of Agriculture hailed the importance of the program at an event held at USDA in July 2000 to celebrate the tenth anniversary of the Americans with Disabilities Act. This event was held to celebrate AgrAbility as USDA's contribution to fulfilling the promise of the Americans with Disabilities Act. It demonstrates the value of public-private partnership by securing donations of funds, talent, and materials to magnify the impact of a modest Federal investment. The fiscal year 2001 appropriation of $2.8 million funds 18 state programs.

DISABILITY & AGRICULTURE

Agricultural production is one of the nation's most hazardous occupations. Each year, approximately 200,000 people working in agriculture experience injuries that limit their ability to perform essential farm tasks. Tens of thousands more become disabled as a result of non-farm injuries, illnesses, other health conditions, and the aging process. Approximately 500,000 agricultural workers nationwide have physical disabilities that prevent them from performing one or more essential farm tasks.

The presence of a disability jeopardizes rural and agricultural futures for many of these individuals. Rural isolation, a tradition of self-reliance, and gaps in rural service delivery systems frequently prevent agricultural workers with disabilities from taking advantage of growing expertise in modifying farm operations, adapting equipment, promoting farmstead accessibility, and using assistive technologies to safely accommodate disability in agricultural and rural settings. Yet, with some assistance, the majority of disabled agricultural workers can continue to earn their livelihoods in agriculture and participate fully in rural community life.

AGRABILITY'S ROLE AND ACCOMPLISHMENTS

The AgrAbility Program was established under the 1990 Farm Bill in response to the needs of farmers with disabilities. The Farm Bill authorizes the Secretary of Agriculture to make grants to Extension Services for conducting collaborative education and assistance programs for farmers with disabilities through state demonstration projects and related national training, technical assistance, and information dissemination. Easter Seals is proud to be a partner with the University of Wisconsin Extension Service to provide the national training and technical assistance portion of AgrAbility. Thousands of people in states with and without state AgrAbility projects are aided through this initiative.

AgrAbility combines the know-how of the Extension Service and disability organizations to provide people with disabilities working in agriculture the specialized services that they need to safely accommodate their disabilities in everyday farm operations. AgrAbility received strong bipartisan support during the 1998 reauthorization of the USDA research and education programs, and was extended through fiscal year 2004. The $6 million authorization level for AgrAbility was continued.

Under the statute, state and multi-state AgrAbility projects engage Extension Service agents, disability experts, rural professionals, and volunteers to offer an

array of services, including: identifying and referring farmers with disabilities; providing on-the-farm technical assistance for agricultural workers on adapting and using farm equipment, buildings, and tools; restructuring farm operations; providing agriculture -based education to prevent further injury and disability; and, upgrading the skills of Extension Service agents and other rural professionals to better promote success in agricultural production for people with disabilities.

In 2001, USDA received an allocation from Congress of $2.8 million. These funds support eighteen state projects in Colorado, Delaware, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Pennsylvania, South Dakota, Tennessee, Texas, Utah, and Wisconsin.

AgrAbility provides customized assistance to farmers, ranchers, and farmworkers with disabilities and their families. The nature and degree of assistance depends on the individual's disability, needs and agricultural operation. For Example:

—Grover Greer, of Anguilla, Mississippi, has farmed in the Mississippi Delta for 26 years. Thanks to the work of AgrAbility and other state agencies, his son is now doing the same. Born with cerebral palsy, Jonathan, 17, operates a 25-acre turfgrass business. A hoist and hand controls allow Jonathan to independently operate his tractor to irrigate and maintain the grass. While they anticipate the business growing and providing Jonathan with employment, Grover says, "The more important point is that he is happy and self-sufficient." Jonathan is putting to good use his abilities and motivation to be a successful turfgrass farmer.

—Max Rodemeyer from Latimer, Iowa was diagnosed with Multiple Sclerosis in his twenties. Now in his forties, he has difficulty climbing, crouching and walking long distances. With these limitations, he was unsure whether or not he could continue to operate his 900-acre family farm. Through modifications recommended by Iowa AgrAbility, a joint effort between Iowa State University Extension and Easter Seals Iowa, Mr. Rodemeyer has been able to remain gainfully engaged in farming. Mr. Rodemeyer uses a Kawasaki Mule, All Terrain Vehicle to get from building to building and to check his crops. All of his tractors have lower and wider steps to make it easier for him to mount and dismount. Mr. Rodemeyer uses a special seed vacuum to load seeds into his planter, as he is not able to lift 50-pound bags. Through these modifications, and the assistance of Iowa AgrAbility, Max is doing what he always has done and what he wants to continue to do, farm.

—Richard Mauer, of Newport, Pennsylvania, has operated his 450-acre dairy farm since he purchased it from his father in 1966. Thirty years later, a stroke that left Mr. Mauer partially paralyzed threatened his ability to remain in farming. After reading about AgrAbility in a magazine, Mr. Mauer contacted AgrAbility for Pennsylvanians to seek assistance. AgrAbility staff helped Mr. Mauer make modifications to his farm including extra steps on tractors, a new more automated milking system with computerized monitors and automatic shut-off mechanisms, and a automatic wagon hitch that minimizes the number of times Mr. Mauer must climb on and off a tractor. These modifications have helped Mr. Mauer remain in farming, and his farm currently produces approximately 550 gallons of milk a day. He also serves as a mentor for other farmers with disabilities throughout Pennsylvania. Overall, AgrAbility Projects in 24 states along with the national project accomplished the following since 1991:

—provided assistance, including nearly 5,000 on-site visits, to over 8,760 farmers, ranchers and farmworkers or their families affected by disability;

—educated over 137,000 agricultural, rehabilitation, and health professionals on safely accommodating disability in agriculture;

—recruited and trained more that 5,300 volunteers and peer supporters to assist farmers, ranchers and farmworkers with disabilities; and,

—reached 9,500,000 people through more that 6, 100 exhibits, displays, and demonstrations to increase awareness of the challenges affecting and resources available to farmers, ranchers and farmworkers with disabilities.

Nationally, the AgrAbility technical assistance and education grant was awarded to Easter Seals national headquarters and the University of Wisconsin Extension Service in 2000. This new partnership is generating innovative and effective activities at the national level that will have a significant impact on the effectiveness of the state AgrAbility projects and the lives of farmers with disabilities. Some of the initiatives underway or planned at the national level include:

—a national needs assessment conducted with state AgrAbility project staff that will identify priorities for designing new tools and training;

—organizing a consensus conference with the Farm Foundation to engage leading agricultural interests in identifying and addressing concerns of farmers with disabilities;

—refining the AgrAbility website, including offering AgrAbility technical information and tools electronically that were previously only available in paper format;
—developing a comprehensive training package on rural case management with the Marshfield Clinic and National Farm Medicine Center; and,
—developing distance education programs for State AgrAbility Project staff to increase access to training.

IMPACT OF CURRENT FUNDING LEVELS

A funding floor of $150,000 per state was set in the 1990 Farm Bill to assure that the state programs were appropriately resourced to meet diverse, statewide agricultural accommodation needs. However, because funding has not approached the $6 million authorized level, state projects have only received slightly over $100,000 per state. In the 1998 reauthorization of the USDA research and education programs, the Committee reaffirmed a commitment to that funding floor of $150,000 per state. Easter Seals strongly supports full funding of state programs to 4 assure that they continue to be effective for farmers with disabilities. The fiscal year 2002 request of $4.6 million would bring all current states up to the $150,000 level and would allow eight currently unserved states to implement AgrAbility programs.

AgrAbility projects are underfunded relative to need and objective. At the current funding level, only a few staff can be hired to provide statewide education and assistance to farmers with disabilities, educate rural professionals, recruit volunteers, and work with rural businesses on disability-related issues. Rising demand for services and the great distances that must be traveled to reach farmers and ranchers severely strains even the most dedicated of AgrAbility's outstanding staff. Easter Seals fears that failure to invest adequately in this worthwhile program will ultimately cause it to falter.

One of the consequences of limited funding is that, in every grant cycle, some states with existing AgrAbility programs and a demonstrated need for services, are not renewed and are forced to discontinue services to farmers with disabilities in that state. These states often have difficulty obtaining the access to the limited public and private funding sources that the Federal seed money granted them. More than a dozen states have sought AgrAbility funding without success. Other states, including Louisiana, Michigan, Montana/Idaho, New Hampshire, New Jersey, New York, South Carolina, Ohio, and Vermont, had USDA-funded AgrAbility projects in the past. Each of these states can demonstrate significant unmet needs among farm and ranch families affected by disability that AgrAbility could potentially address. Any loss of programs will greatly affect farmers with disabilities in states for whom AgrAbility is the primary resource through which they seek information and assistance on farming with a disability.

FUNDING REQUEST

The need for AgrAbility services has never been greater, and its accomplishments to date are remarkable by any standard. Easter Seals is proud to contribute to the ongoing success of the USDA-CSREES AgrAbility Program. Please support the allocation of at least $4.6 million for AgrAbility in fiscal year 2002 to ensure that this valuable public-private partnership continues to serve rural Americans with disabilities and their families. Thank you for this opportunity to share the successes and needs of the USDA AgrAbility Program.

PREPARED STATEMENT OF FLORIDA STATE UNIVERSITY

Mr. Chairman, I would like to thank you and the Members of the Subcommittee for the opportunity to present testimony before this Committee. I would like to take a moment to briefly acquaint you with Florida State University (FSU).

Located in Tallahassee, Florida's capitol, FSU is a comprehensive Research I university with a rapidly growing research base. The University serves as a center for advanced graduate and professional studies, exemplary research and top quality undergraduate programs. Faculty members at FSU maintain a strong commitment to quality in teaching, to performance of research and creative activities and have a strong commitment to public service. Among the faculty are numerous recipients of national and international honors, including Nobel laureates, Pulitzer Prize winners as well as several members of the National Academy of Sciences. Our scientists and engineers do excellent research, have strong interdisciplinary interests, and often work closely with industrial partners in the commercialization of the results of their research. Having been designated as a Carnegie Research I University several years

ago, Florida State University currently is approaching $125 million per year in research awards.

FSU will soon initiate a new medical school, the first in the U.S. in over two decades. Our emphasis will be on training students to become primary care physicians, with a particular focus on geriatric medicine-consistent with the demographics of our state.

Florida State attracts students from every county in Florida, every state in the nation, and more than 100 foreign countries. The University is committed to high admission standards that ensure quality in its student body, which currently includes some 192 National Merit and National Achievement scholars, as well as students with superior creative talent. We consistently rank in the top 25 among U.S. colleges and universities in attracting National Merit Scholars to our campus.

At Florida State University, we are very proud of our successes as well as our emerging reputation as one of the nation's top public universities.

Mr. Chairman, let me tell you about a project we are pursuing this year through the U.S. Department of Agriculture/Agricultural Research Service Account. Florida State University (FSU), Harbor Branch Oceanographic Institution (HBOI), and USDA's Agriculture Research Service (ARS) are collaborating on a five-year research and development program to design low-cost, energy efficient recirculating aquaculture production systems for marine species in new environments. These efforts will expand the aquaculture opportunities for subtropical marine species to inland sites throughout the southern United States.

There is an increasing global awareness of the need for sustainable aquaculture development. By the year 2025 global population is projected to reach 8.5 billion, with a projected demand for seafood of 120 million metric tons (MMT). Capture fisheries reached the carrying capacity more than ten years ago, but the demand for seafood has shown no signs of abating. The Food and Agriculture Organization (FAO) reported that in 1995 aquaculture only accounted for 26 percent of the total world harvest of food fish. In 1997, U.S. seafood imports increased both in volume and value with shrimp topping the list at 278,600 metric tons valued at $2.7 billion dollars. Shrimp imports continue to be the second largest contributor to the U.S. trade deficit and it is expected that finfish imports will follow the same scenario. There remains a great need for U.S. aquaculture production to fill this void and relieve some of the harvest pressure on wild fish stocks.

Competition for access to the limited U.S. coastal land resources requires innovative approaches to develop and expand marine aquaculture into new environments. HBOI has work underway demonstrating that many saltwater species thrive in freshwater systems with the appropriate chemical makeup. Experimental and demonstration trials have shown that some species of marine fish and shrimp can be successfully acclimated and grown to market size in hard freshwater systems, thus, expanding the sites where marine species can be cultured.

In response to public concern about environmental protection of coastal waters and producer concern about biosecurity to protect farmed aquatic resources from disease and poor water quality, farmers are turning to recirculating aquaculture production systems. In many locations around the U.S., regulatory constraints already require the use recirculating aquaculture systems. In order to use these systems to produce marine finfish, we need to improve the filtration efficiency and develop cost effective recirculating production systems.

The objectives of the five-year research program are to: develop the culture technology to produce marine or brackish water species in new environments (i.e., fresh water); improve the energy efficiency (i.e., solar) and reduce the production costs for enclosed aquaculture production systems; and design low-cost recirculating systems for intensive aquaculture production. The goal of our work is to design a cost effective and energy efficient solar aquaculture system capable of sustained production of warm-water species throughout the year in colder climates. The research team will design and test low-cost recirculating nursery and growout production systems for marine finfish. Our design will also include a computer control system for all solar components, water and interior temperatures, recirculating systems, and other mechanical components. Findings will expand U.S. aquaculture production of saltwater species into new locals, result in better utilization of land resources and reduce the demand for imported aquaculture products.

The collaborating institutions are seeking an appropriation of $1.7 million in fiscal year 2002 to support the development of sustainable marine aquaculture systems through the U.S. Department of Agriculture's Agricultural Research Service (ARS) account.

Mr. Chairman this is an excellent project that will yield great rewards for our nation and is just one of the many ways that Florida State University is making important contributions to solving some key problems and concerns our nation faces

today. Your support would be appreciated, and, again, thank you for an opportunity to present these views for your consideration.

PREPARED STATEMENT OF FRIENDS OF AGRICULTURAL RESEARCH—BELTSVILLE

Mr. Chairman, and Members of the Subcommittee, thank you for this opportunity to present our statement supporting funding for the Department of Agriculture's Agricultural Research Service (ARS), and especially for the Agency flagship research facility, the Henry A. Wallace Beltsville Agricultural Research Center (BARC), in Maryland. Our organization—Friends of Agricultural Research—Beltsville—is dedicated to supporting and promoting the Center's agricultural research, outreach, and educational mission.

Now without preliminaries, Mr. Chairman, we will go directly to the heart our recommendations, which are based on expressed industry needs and our consultations with the Department of Agriculture.

We first will list three high priorities where we recommend establishing new research positions. Second, we will suggest relatively new or ongoing research areas that need additional funding. Last, we will allude to other fundamental research topics and needs.

RECOMMENDATIONS FOR NEW POSITIONS

Biochemist or Molecular Biologist Position for Dry Bean Research.—American farmers annually plant two million acres to dry beans, generating a farm-gate cash value of approximately $280 million. Farmers plant another 300, 000 acres to snap beans for fresh markets and processing, generating approximately $280 million annually. The United States is one the world's largest exporter of dry beans. Much of the export goes to Africa and Latin American, where dry beans provide excellent sources of protein, vitamins, minerals, and calories for the diets of hungry, low-income people. Beans are important to the American diet as well.

U.S. dry bean and snap bean production is constrained by persistent low yields and plant diseases. Production restraints are complex and poorly understood. Though traditional investigative approaches have produced several improved bean cultivars, further progress requires a more comprehensive, multidisplinary approach. Thus, we are pleased to join the National Dry Bean Council in recommending a new scientific position within the Vegetable Laboratory for developing molecular markers to identify genes for improving yields and resistance to diseases. The new position will contribute to dry bean improvement throughout the United States and beyond.

Soil and Water/Hydrologist Position for Irrigation and Water Management Research in the Mid-Atlantic States.—Just in the past ten years, irrigation agriculture from New Jersey to Florida has grown by 20 percent. Irrigation agriculture in the region now totals almost five million acres. Yet irrigation expertise and research are lacking. Growers need better information to manage irrigation timing and drainage to improve profitability and protect the environment from associated crop production risks. They need information about efficient, safe use of waste (recycled) water, especially for irrigating turfgrass and ornamental landscapes, and protecting local and regional water quality. They need strategies to deal with sporadic drought conditions and competition among alternative demands for local and regional water supplies. We concur in recommending a new science position to address these expanding issues.

Research Position for Organic Farming Systems.—Certified organic cropland doubled from 1992 to 1997. Organic livestock sectors—eggs and dairy—grew even faster. Forty-nine states committed 1.3 million acres to organic production, two-thirds of them to crops in 1997. Almost half the states were raising certified organic livestock. Organic farming systems rely on cultural and biological pest management, virtually prohibiting synthetic chemicals in crop production and antibiotics or hormones in livestock production. Organic farming provides habitat for predators and parasites of crop pests. Organic farmers use planting, and harvesting dates and crop rotation to maintain soil fertility, and cycle animal and green manures as fertilizer. Approximately 2 percent of our best fruit and vegetable crop acreage—apples, carrots, lettuce, and grapes—was managed organically in 1997. Certified organic livestock production was less than one percent of total production but growing.

Several USDA agencies are active in the expanding the organic farming industry. Since the early 1990s BARC has been in at the forefront of research on organic and sustainable farming systems. The Center needs this new position to enhance and expand its support of this rapidly growing sector of American agriculture.

RECOMMENDATIONS FOR ONGOING WORK

Bio-mineral Soil Amendments for Nematode Control.—Losses to soil nematodes cost farmers billions every year. The soybean cyst nematode alone can cut soybean yields by 10 percent, often more. Citrus and vegetable crops also are vulnerable to intensive nematode damage. Growers are squeezed by expanding nematode infestations, developing nematicide resistance, and de-registration of traditional nematicides because of environmental concerns. BARC in cooperation with industry and others is pursuing new, more effective approaches to nematode control, including promising research lines using such re-cyclable soil amendments as animal wastes, composts, and mineral by-products. We recommend a substantial increase in funds supporting these promising approaches.

Animal Improvement Programs.—For many years America's dairy cows have steadily increased milk production at the rate of about 45 gallons per year. Approximately two-thirds of those increase trace to genetic progress. Much of the credit for that success stems from the cooperative national and international genetic evaluation programs of BARC's award winning Animal Improvement Programs Laboratory. Now under funded, the laboratory needs additional support to continue its historical support for the nation's dairy farmers, livestock and food industries, and American consumers.

OTHER RESEARCH OR INITIATIVES

Mr. Chairman, the foregoing includes only our most prominent recommendations. They are neither comprehensive nor exclusive. For instance, we recommend support for BARC's work on value-added products, co-utilization, and cooperation with industry to use foundry sand in soil amendments. Finally, we will note the exponential growth of a relative new field called "agricultural bioinformatics," which generally refers to using advanced computer expertise to support such studies as genomics, molecular biology, gene and chromosomal mapping, and database mining for genetic improvement.

Since our last statement before this Subcommittee, BARC has celebrated several milestone events marking the Center's long, distinguished record of leadership and accomplishment. In closing, we briefly will note selected BARC milestones and will allude to another milestone event planned for later this year.

Last June BARC celebrated its 90th anniversary year. The event—in conjunction with BARC's annual public field day—featured priceless period photos and great research accomplishments through the decades. Also in June, the Center was officially named the Henry A. Wallace Beltsville Agricultural Research Center in honor of former Secretary Henry Wallace. During Secretary Wallace's tenure, BARC grew and expanded, shifted its emphasis from applied research to "research into the laws and principles underlying agriculture in its broadest aspects."

In September, FAR—B was pleased to co-sponsor another in BARC's outstanding series of international symposia. This one, appropriately entitled Healthy Animals 2000, was markedly successful. Then just last month the American Society for Horticultural Science designated BARC a "Horticultural Landmark." The Society has declared only two other Historical Landmarks: Monticello, honoring our third President, and the Como Park Conservatory in St. Paul, Minnesota. Last, we note that BARC is planning a groundbreaking ceremony later this year to modernize the Beltsville Human Nutrition Research Center

Mr. Chairman, that concludes our statement. We are grateful for your past support of the BARC mission. And, we again thank you for the opportunity to present our testimony.

PREPARED STATEMENT OF FRIENDS OF THE NATIONAL ARBORETUM

Chairman Cochran and members of the Subcommittee, thank you for the opportunity to submit testimony in support of the U.S. National Arboretum (USNA) on behalf of Friends of U.S. National Arboretum (FONA)

In 1997 the Agricultural Research Service (ARS) commissioned development of a new Master Plan for the USNA. The new Master Plan was developed under contract with the ARS by a noted outside consultant and was essentially completed by mid-1999. Since fiscal year 2000, FONA and key Members of Congress have been urging implementation of the new Master Plan, which should start with the capital funding for the design and implementation of such long lead-time items as the new entrance from Bladensburg Road and the new visitor's center. FONA respectfully requests $3,000,000 for planning, design and construction of the new entrance off

Bladensburg Road and $110,000 for planning and design of the new Education and Visitors Center.

FONA is advised that starting in fiscal year 2002, the Gardens Unit as well as the Education and Visitor Services Unit will have to decrease staff because of budgetary constraints at the very time that the success of the facility and interest in horticulture is bringing increased number of visitors to the site. These units have not had a program increase since fiscal year 1996 and are further threatened by having funds diverted to meet increased utility and service costs. FONA strongly urges an increase in the USNA's operating budget equivalent to 7 FTE's for these key functions in fiscal year 2002.

The Congressionally mandated purposes of the USNA are research and education. As part of the ARS, the USNA has a strong research program. Yet an independent consultant recently found that is was not very visitor friendly. Its Gardens Unit as well as its Education and Visitor Services Unit are chronically underfunded, and these components of the education function cannot compete favorably against research projects for program funding within the ARS. It has been the urgent recommendation of FONA that funding of the facilities component of the USNA, including specifically the Gardens and Education and Visitors Services Units, should be removed from within the Plant, Microbial, and Insect Genetic Resources, Genomics and Genetic Improvement (301) program area and established as a stand-alone program area. FONA urges implementation of this recommendation in the appropriation for fiscal year 2002.

Thank you for your continued support of the national treasure that is our U.S. National Arboretum.

PREPARED STATEMENT OF THE COACHELLA VALLEY WATER DISTRICT; IMPERIAL IRRIGATION DISTRICT; THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA; AND SAN DIEGO COUNTY WATER AUTHORITY

This is a fiscal year 2002 budget request to provide $2 million from the Department of Agriculture's wildlife habitat program for habitat conservation and enhancement in and around the Salton Sea area related to agricultural activities in Riverside and Imperial Counties in California. The requested funds would be used to conserve and enhance habitat that could be affected by agricultural water use efficiency improvements needed in order to provide water to meet urban water needs in southern California, and do so without adversely impacting the region's farm economy. More effective water use is a critical part of California's Colorado River Water Use Plan.

California's Colorado River Water Use Plan is a major undertaking by the State and its agencies that will enable California to reduce its reliance on Colorado River water by up to 800,000 acre-feet per year. In the past, California has taken up to 5.2 million acre-feet per year from the river; but due to increased use by other states, California must now find the means to live within its normal year apportionment of 4.4 million acre-feet. Key components of California's Colorado River Water Use Plan include core voluntary cooperative water conservation/transfers from agricultural use to urban use which are needed to meet California's water needs and maintain its urban and agricultural economies. At the same time, we must conserve and enhance critical wildlife habitats that could be affected by water conservation. California and its Colorado River water users will be making expenditures in the billions of dollars to implement California's Colorado River Water Use Plan.

The requested funds would be used to create lower salinity habitat in the Salton Sea deltas and surrounding areas, provide for wetland/upland restoration projects, and enhance piscivorous bird habitat. The local program implementing agency would be the Imperial Irrigation District.

Our collective agencies thank you for your consideration of this important funding request, and respectively request that the funding be part of the Department of Agriculture's fiscal year 2002 budget.

PREPARED STATEMENT OF THE HUMANE SOCIETY OF THE UNITED STATES

We appreciate the opportunity to provide testimony to the Agriculture and Rural Development Subcommittee on funding items of great importance to the Humane Society of the United States and its 7.7 million supporters nationwide. As the largest animal protection organization in the country, we urge the Committee to provide these priority funding items in the fiscal year 2002 budget:

—$3.8 million increase for Animal Welfare Act Enforcement, broken down as follows:

—$2.4 million increase for APHIS/Animal Welfare inspections
—$1 million increase for APHIS/Investigative and Enforcement Services
—$400,000 increase for ARS/Animal Welfare Information Center
—$325,000 for Iowa's Leopold Center for Sustainable Agriculture to promote use of hoop barns, under the Cooperative State Research, Education, and Extension Service
—$1,988,673 for Wildlife Services Methods Development to conduct 1st year of study evaluating relative effectiveness of non-lethal and lethal predator control management for livestock protection
—$102,000 increase for APHIS enforcement of Horse Protection Act

ANIMAL WELFARE ACT ENFORCEMENT

We are grateful that the Committee has begun to address the severe budget shortfall in the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS)/Animal Welfare budget, by providing a $1 million increase in fiscal year 2000 and a $2 million increase in fiscal year 2001. Before that, as you know, funding for enforcement of the Animal Welfare Act had been stagnant since 1991. The Animal Care (AC) unit received $12.14 million in fiscal year 2001 to cover, among other things, inspections of approximately 10,000 separate locations at regulated entities—research facilities; exhibitors such as zoos and circuses; animal dealers and breeders; and animal carriers such as airlines and ground freight handlers.

While the increases of the past two years are making a real difference, more is needed to ensure that regulated facilities and the public can depend upon having a high quality inspection program and consistent enforcement of the Animal Welfare Act's requirements. This is vital to protect the health and safety of millions of animals. It is also important for people, as strong enforcement protects them against (1) the sale of unhealthy pets by commercial breeding facilities commonly referred to as "puppy mills"; (2) laboratory conditions that may impair the scientific integrity of animal-based research; (3) risks of disease transmission from, and dangerous encounters with, wild animals in or during public exhibition; and (4) injuries and deaths of pets on commercial airline flights due to mishandling and exposure to adverse environmental conditions. To help meet these needs, we respectfully request that the Committee provide an additional $3.8 million in fiscal year 2002, allocated to the following three key components. The Humane Society of the United States is pleased to join forces on this request with a broad coalition of organizations representing regulated facilities and animal protection interests.

Animal Welfare Inspections—$2.4 million increase

In 2000, USDA was able to conduct fewer than 9,000 Animal Welfare Act compliance inspections, down from 18,000 in 1992. Thanks to the modest increases of the past two years, the AC division has begun to reverse this decline, and expects to complete just over 10,000 inspections this year. While this is an encouraging sign that attention will be paid to long-neglected facilities, it highlights the need for further progress. At these still-low levels, many facilities continue to escape oversight for long periods of time, giving rise to situations that threaten both human and animal health and safety. Forty-five percent of the sites that are inspected are found to have apparent violations of the minimum standards under the Act. Facilities with serious deficiencies require between four and eight reinspections per year until compliance is achieved. To ensure that every site is visited at least once a year and all noncompliant facilities receive the necessary follow-up, AC should conduct a minimum of 17,000 compliance inspections per year. A $2.4 million increase in fiscal year 2002 would bring the Animal Welfare budget to $14.5 million, enabling AC to hire, train, and equip an additional 14 inspectors; conduct approximately 11,600 inspections and improve follow-up inspections to verify correction of violations; increase searches for unlicensed and unregistered operations and other illegal activities; handle animal care complaints more quickly; expand outreach to regulated industries and the public; develop industry-specific training courses; and implement internal audits and inspector quality reviews to ensure consistent quality in inspections.

Investigative and Enforcement Services—$1 million increase and Committee Report language

As AC inspectors improve their identification of problems at facilities, the workload at Investigative and Enforcement Services (IES) grows. However, ten years of static IES budgets have resulted in a substantial reduction in the number of investigators, from 73 in 1992 to 56 in 2000, creating a bottleneck in the overall enforcement system. Only 329 Animal Welfare Act investigations were undertaken in 2000, down from 800 in the early 1990s. In the early 1990s, cases took an average of 60

days to complete; in 2000, it was 140 days. A $1 million increase in fiscal year 2002 directed at enhanced enforcement of the Animal Welfare Act would bring IES' budget to $7.26 million, enabling it to fill a critical vacancy for an enforcement specialist; continue to support four field positions now temporarily funded through the APHIS Administrator; add four new field staff strategically placed in areas with high concentrations of animal welfare licensees and registrants; reduce time to complete investigations; deploy "quick-response" teams to address high-priority violations; and improve tracking of unlicensed operators. We also respectfully request inclusion of the following language in the Committee Report: "The Committee directs that $1 million of additional funds for Investigative and Enforcement Services be used for enhanced enforcement of the Animal Welfare Act."

Animal Welfare Information Center—$400,000 increase

Created by Congress in 1985, the Animal Welfare Information Center (AWIC) serves as a clearinghouse and education resource for all individuals involved in the care and use of animals for experimentation. AWIC provides information on training for laboratory employees, and legal requirements and appropriate care for animals in research, including minimizing pain and distress, preventing duplication of experiments, and reducing or replacing animals in research when possible. It is an invaluable resource for the research community, and users have accessed its website, http://www.nal.usda.gov/awic, nearly half a million times in one year alone. However, the AWIC budget has remained stagnant at $750,000 since its creation more than 15 years ago. A $400,000 increase in fiscal year 2002 would bring AWIC's budget to $1.15 million, enabling it to develop web-based training to enhance compliance with the Federal law; expand its website with additional material and update the search engine to improve access to the data available; and sponsor workshops in different regions of the country.

HOOP BARNS/LEOPOLD CENTER FOR SUSTAINABLE AGRICULTURE

The hoop barn is an emerging alternative for livestock production that offers many advantages to the factory farm system of animal housing. A typical hoop barn is shaped like a Quonset hut (a half cylinder lying on its flat side) and contains a deep bedding of straw or corn stalks. No individual cages confine the animals, and open ends, which can be closed if weather requires, allow access to pasture. Animals in hoop barns enjoy greater freedom of movement and have the opportunity to interact socially.

Because they are not tightly confined in an overcrowded, high-stress environment, animals in hoop barns tend to be healthier than their counterparts in factory farms. That means farmers using hoop barns do not need to rely on antibiotics to prevent disease and promote growth, a common practice on factory farms that is contributing to the development of antibiotic-resistant strains of bacteria that threaten public health. Products from hoop producers are being sought out by meat suppliers and restaurants based on the enhanced flavor and texture characteristics of the meat. In addition, hoop barns are better for the environment, because they use solid manure composting rather than the liquid waste disposal system used by factory farms, which jeopardizes groundwater and produces noxious odors. Furthermore, they offer an affordable alternative for farmers. Hoop barns are approximately one-third the cost of conventional factory farm structures. They are easy to install and versatile (they can be used for different species or for storage of hay or equipment). This flexibility helps family farmers withstand fluctuations in market demand and avoid corporate buyouts.

The Leopold Center for Sustainable Agriculture at Iowa State University has been in the forefront of research and development on hoop barns. We request funding of $325,000 under the Cooperative State Research, Education, and Extension Service account to enable the Center to make the benefits of hoop barns available on a wider scale. These funds would be used by the Center to:

—Evaluate several production, marketing, and systems questions where current hoop knowledge is in the early stages, including but not limited to: disease/pest vector control, gestation applications, and social, community, and environmental effects.

—Develop a "Best Management Practices" manual for raising pigs in hoops. This will provide guidance to farmers on how to install and operate hoops for optimal results in a range of different climates and other factors, so that use of these structures can be effectively and readily adapted to suit individual farming needs. It will include information on animal behavior, animal husbandry and nutrition, health strategies, environmental impacts, marketing strategies, and economic costs and returns for pigs raised in hoop structures.

—Establish a network of hoop demonstration sites and producers with multiple locations in Iowa and other states, including Florida (a major pork consumption state). This objective would include dissemination of information through field days, tours, producer exchanges, etc.
—Address potential use of hoop barns for production of other animal species.
—Work with industry producer groups, processors, retailers, and community groups to promote awareness of use of hoop barns in pork production. This would include factors such as quality of pork, community issues, targeted marketing, and market linkages of producers, processors, retailers, and consumers.

Wildlife Services Non-Lethal Predator Control Demonstration Program

We appreciate the Committee's inclusion of a provision in the fiscal year 2001 Agriculture Appropriation Act for the Wildlife Services Methods Development division to "conduct pilot projects in up to four States representative of wildlife predation of livestock in connection with farming operations for direct assistance in the application of non-lethal predation control methods . . .," in order to evaluate the effectiveness of non-lethal measures. We believe this investigation can help advance what has often been a contentious debate in Congress surrounding USDA's use of lethal predator control for livestock protection.

We have worked closely with Wildlife Services personnel during the past few months, as they identified three states (Idaho, California, and West Virginia) to investigate and developed a study protocol designed to produce statistically meaningful results. To accomplish this objective, experts at the National Wildlife Research Center and at USDA headquarters suggest that a four-year study be undertaken involving eight to twelve sheep ranches in each of the three states. Participating ranches would be provided the current regime of assistance (blending lethal and non-lethal techniques) for half of the study period, and would be provided only non-lethal assistance for the other half of the study period. Participants would be divided into two groups, with one group receiving the non-lethal assistance for the first two years and the current regime for the last two years, while the other group would receive help in the reverse order (current regime first, then non-lethal only). Again, according to the Wildlife Services experts, this "switchback" study design will minimize bias and variables that would distort evaluation of the relative effectiveness of lethal vs. non-lethal measures. Participants would be offered compensation for verified livestock losses due to canid predators (except wolves) during the non-lethal only phase of the study, in order to assure their continued participation in the study. Because the lambing season was already underway in two of the three states by the time the protocol was developed, and because the necessary funding was not in hand, we and the sponsors of the original provision, Senators Bob Smith and Barbara Boxer, agreed with Wildlife Services personnel that it would be preferable to defer the first year of the study until fiscal year 2002.

The detailed study protocol should be available from Wildlife Services for the Committee's consideration. Attached is a one-page budget break-out prepared by Wildlife Services that shows projected study needs for each of the four years. Accordingly, we request that the Committee provide $1,988,673 in fiscal year 2002 to initiate this study, along with report language referencing the objective and key elements of the study.

HORSE PROTECTION ACT ENFORCEMENT

Enacted by Congress in 1970, the Horse Protection Act was passed to end the obvious cruelty of physically soring the feet and legs of horses. In an effort to exaggerate the high-stepping gate of Tennessee Walking Horses, unscrupulous trainers use a variety of methods to inflict pain on sensitive areas of the feet and legs for the effect of the leg-jerk reaction that is popular among many in the show-horse industry. Just as in 1970 the practice of soring was rampant, in 2001 the practice continues unabated by the well-intentioned but seriously underfunded and understaffed APHIS inspection program.

The authorization limit for enforcement of the Act has remained at $500,000 since the enactment of the law 30 years ago, and annual appropriations continue to fall short of even that low funding level. We appreciate that the Committee began to address this shortfall last year, with an increase of $37,000 that brought the funding level up to $398,000 in fiscal year 2001. We respectfully urge that the Committee provide funding at the full authorization level of $500,000 for fiscal year 2002 (a $102,000 increase), to improve enforcement of the Horse Protection Act. We also urge the Committee to resist any effort to include report language that might restrict the USDA from enforcing this law to the maximum extent possible.

Again, we appreciate the opportunity to share our views and priorities for the Agriculture and Related Development Appropriation Act of fiscal year 2002. We hope

the Committee will be able to accommodate these modest funding requests to address some very pressing problems affecting millions of animals in the United States. Thank you for your consideration.

Proposed Costs for Direct Predation Damage Management Assistance by WS to Sheep Producers in a Pilot Study in CA, ID and WV for 2002-2005

Salaries/Benefits *	FY02	FY03	FY04	FY05	Total (FY02-05)
NWRC					
Research Scientists (4@15pp)	$46,472	$48,331	$50,266	$52,277	$197,346
Administration (1@1pp)	$3,500	$3,640	$3,800	$4,000	$14,940
Information Transfer (1@2pp)	$7,000	$7,280	$7,600	$8,000	$29,880
Data Entry Clerk (GS 6)	$27,396	$28,492	$29,631	$30,816	$116,335
Operations **					
WS Specialists (CA,ID,WV) (9@18pp)	$140,140	$145,746	$151,575	$157,639	$595,100
TOTAL SALARIES	**$224,508**	**$233,489**	**$242,872**	**$252,732**	**$953,601**
Supplies/Equipment					
Operations					
22" woven wire fence w/3 bobwire strands $2,470 per mile (40-45 yrs) 6 farms, 5 mi/ea	$74,100		$80,028		$154,128
6 strand electric, 5 miles, 18 farms $1,517 per mile (25-40 yrs)	$136,530		$147,452		$283,982
2 strand electric (portable) (2-4 years) $409 per mile, 10 miles, 18 farms	$73,620		$79,510		$153,130
E-net (portable) (2-4 years) $1,232 per 10 acres, 30 acres, 18 farms	$665,280		$718,502		$1,383,782
24 guard dogs @$500 each	$12,000		$12,480		$24,480
12 guard llamas@ $500 each	$6,000		$6,240		$12,240
Electronic guards (5 unit/farm) $280 each	$5,040		$5,242		$10,282
Scary man (1 unit/farm) $800 each	$14,400		$14,976		$29,376
5 herders @$1,500/mo/each	$90,000	$93,600	$97,344	$101,238	$382,182
LP Cannons (9 units @$275 each)	$2,475		$2,574		$5,049
Pyrotechnics: 18 pistols @$29.50 each	$531		$552		$1,083
1,800 screamers @$37.50/per 100	$675	$702	$730	$759	$2,866
Miscellaneous Expenses (WS Operations)	$5,000	$5,200	$5,408	$5,624	$21,232
Miscellaneous Expenses (NWRC)	$3,000	$3,120	$3,245	$3,375	$12,740
TOTAL Supplies/Equip	$1,088,651	$102,622	$1,174,283	$110,996	$2,476,552
Travel (NWRC personnel)					
	$12,000	$12,400	$12,816	$13,249	$50,465
Compensation/Insurance ***					
18 test properties@$5,500 each	$99,000	$102,960	$107,078	$111,362	$420,400
72 surrounding properties @$4,000 each	$288,000	$299,520	$311,501	$323,961	$1,222,982
SUB TOTALS	$1,712,159	$750,991	$1,848,550	$812,300	$5,124,000
Agency Overhead @ 16.15%	$276,514	$121,285	$298,541	$131,186	$827,526
TOTALS	**$1,988,673**	**$872,276**	**$2,147,091**	**$943,486**	**$5,951,526**

* 4 percent increase/year

** Include salary, benefits, GSA rental, gasoline, dog/horse hire, etc.

*** Approximate costs

03/27/2001

PREPARED STATEMENT OF THE ILLINOIS SOYBEAN ASSOCIATION AND THE UNIVERSITY OF ILLINOIS

We appreciate the opportunity to provide testimony on behalf of the Soybean Disease Biotechnology Center, an important initiative for soybean producers in Illinois and the United States.

Request.—The Illinois Soybean Association, an organization of approximately 4,000 leading soybean producers, and the University of Illinois, a major land-grant institution, propose to establish a Soybean Disease Biotechnology Center within the National Soybean Research Laboratory (NSRL) at the University of Illinois. We request a Federal appropriation of $3.5 million to match a $500,000 contribution from the Illinois Soybean Checkoff Board to establish the Center.

The Illinois Soybean Checkoff Board will entertain proposals from Center scientists for future program support, and the University of Illinois will contribute core

staff, space, general support services, greenhouse facilities, and utilities. This will greatly leverage Federal support of soybean disease biotechnology research.

Rationale.—The Soybean Disease Biotechnology Center will be the first line of defense against major soybean diseases that threaten the U.S. soybean industry, especially the soybean cyst nematode (SCN). The Center will bring the power of new sciences of structural, comparative, and functional genomics and genetic transformation to bear on SCN and other current and potential disease threats, including major diseases not yet in the U.S., such as soybean rust.

Center researchers will identify and create new and improved mechanisms of disease tolerance and resistance, so as to protect the soybean crop and increase its profitability throughout the industry. Genetic stocks of the National Soybean Germplasm Collection, located at the University of Illinois, will be a unique, readily accessible resource for the Center, as will wild species that are related to soybean and have novel sources of disease resistance.

Location Advantages.—The Soybean Disease Biotechnology Center will be synergistic with two campus resources: the Keck Center for Comparative and Functional Genomics and the National Center for Supercomputing Applications. They offer high throughput genetic sequencing, unequaled bioinformatics capabilities, and unique, one-of-a-kind genetic analysis tools, including micro-arrays. Center researchers will also have ready access to the University of Illinois Biotechnology Center, which provides recombinant DNA and protein services, immunological resources, flow cytometry, high capacity transgenic plant production, and cell and tissue culture facilities.

Outstanding USDA–ARS programs in soybean pathology will interface directly with the Center, and there will be direct access to superb conventional greenhouse and controlled environment facilities in adjacent, connected structures. As part of this project, a bio-containment greenhouse will be constructed specifically to provide the levels of isolation and protection required for sophisticated disease biotechnology research. An elaborate system of research farms will be available for testing new developments in a wide range of soil and climatic conditions that are representative of the Midwest. Space is available in the NSRL to create specialized, state-of-the-art laboratories for the Center.

The Soybean Disease Biotechnology Center will interface with the new St. Louis-headquartered Danforth Plant Science Center and participate in the Illinois Missouri Biotechnology Alliance. Its association with the NSRL will assure that research in the Soybean Disease Biotechnology Center will fully complement and benefit from other soy research programs across the nation. This will assure that the results of fundamental soybean disease biotechnology research are quickly translated into practical technology, useful information, and sustainable competitive advantage for the industry.

This is an excellent time to establish the proposed Center because the University of Illinois is ramping up its post-genomics biotechnology program. A multi-million investment of state funds is providing new biotechnology faculty positions in functional genomics, bioinformatics, developmental biology, microanalytic systems, and cellular and molecular bioengineering, and is creating elaborate new facilities for basic biotechnology and bioinformatics research. Some new positions in plant disease biotechnology have been filled with outstanding scientist/educators who already have established impressive track records. The new state-funded Post Genomics Institute (to be completed in 2002) will enable a much-expanded basic biotechnology research program that will support and complement activities of the Center. The Center will also benefit from the investment of Illinois in an expanded University of Illinois business incubator and two new University research parks to assure rapid commercialization of promising new technologies from the University's research program.

Summary.—We request that $3.5 million be appropriated to establish a Soybean Disease Biotechnology Center within the National Soybean Research Laboratory at the University of Illinois. These funds, complemented by state funds and industry contributions, will be used to staff, equip, house, and operate the center, and launch and sustain its programs. We greatly appreciate the legislative initiative that created the National Soybean Research Laboratory and look forward to this opportunity to extend its world-renowned capabilities with the Soybean Disease Biotechnology Center.

PREPARED STATEMENT OF THE UNIVERSITY OF ILLINOIS, THE UNIVERSITY OF MISSOURI, AND SOUTHERN ILLINOIS UNIVERSITY

Our testimony is on behalf of the federally funded project entitled the Illinois-Missouri Alliance for Biotechnology (IMBA). We much appreciate the strong, continuing support of the committee for this effort, which began in fiscal year 1995. The project continues to produce valuable results and open new options for the corn and soybean industries in the Midwest and for the nation as a whole.

Request.—In order to enhance this productive and strategically essential program, we request that $3.0 million be appropriated for IMBA for fiscal year 2002. It is particularly important to push this initiative forward at this time because of the race among nations to capitalize on dramatic findings in the field of genomics. Powerful tools are now available to determine the function of genes in microorganisms, plants, animals, and humans. Knowledge of gene function will allow much better targeting of projects on genes of major economic, health, and social promise. The increased appropriation will allow us to fund a larger proportion of worthy proposals, expand use of the powerful tools of genomics, and include more socioeconomic research that addresses stakeholder concerns about product quality and safety as well as economic and social impacts of biotechnology. An increased appropriation will provide significant economies of scale and scope, thus disproportionately increasing funds directly available for research and increasing annual leveraged contributions to about $9 million.

Needs and Opportunities.—IMBA is focused on the world's most important agricultural challenge, meeting the nutritional needs of a growing population. Rapidly growing population, urbanization, and affluence, especially in Asia, are causing a dramatic increase in the consumption of animal protein. These changes are leading to unprecedented growth in large animal production facilities and in global markets for animal products. Corn and soybeans are economically and nutritionally superior to other grain crops for feeding swine, beef, dairy, poultry, and confined fish. These classes of livestock are increasingly being produced in large-scale, confinement facilities around the world. With superior technology, Illinois, Missouri, and surrounding Midwestern states can be principal global suppliers, not only of corn and soybeans, but also of value-added livestock and other food products produced from these crops. To capture these emerging markets, however, the U.S. will have to compete vigorously against sophisticated foreign producers and will have to address consumer concerns about quality, safety, and efficacy of products containing genetically modified corn and soybeans.

Mission, Objectives, and Strategy.—IMBA seeks to maximize the benefits of biotechnology for the American agriculture and food sector and the American consumer by improving the quality, safety, affordability, and acceptance of agricultural and food products. It accomplishes this mission by supporting competitively funded, cutting-edge biotechnology research conducted as part of research programs organized around clearly defined, practical objectives. IMBA scientists are strongly encouraged to work closely with the private sector to assure that promising new discoveries move rapidly to practical application in Midwest agriculture.

After approval by Congress, program funds are transferred by USDA-CSREES to the Illinois Agricultural Experiment Station, which serves as repository until the funds are dispersed within the program. To avoid spreading the IMBA research investment too thinly, the scope of the program is limited to the corn and soybean industries; geographical scope to Illinois, Missouri, and other Midwestern states; and disciplinary scope to biotechnology, including technical, economic, and social dimensions of that subject.

IMBA-funded biotechnology research grants are awarded competitively, based on relevance to IMBA objectives, soundness of proposed research strategy, and scientific merit. Proposals are evaluated by scientific peers to assure that the best strategies are brought to bear on agricultural problems and opportunities that are important to the region. A Program Manager located at the University of Missouri works with an Executive Management Committee to design and develop a biotechnology research investment portfolio that addresses the following objectives: 1) develop new and improved uses for corn and soybeans and increase the value of these crops as raw material for manufacturing various products, 2) lower the cost of producing, processing, and utilizing these products, 3) maximize positive and minimize negative impacts of the corn and soybean industries on the environment and conserve nonrenewable resources that are consumed by the corn and soybean industries, 4) anticipate and understand the economic and social impacts of agricultural biotechnology and capture as many benefits as possible for the American agriculture and food sector, 5) define the roles of experts and knowledge systems in resolving social conflicts over agricultural biotechnology so as to understand and manage agri-

cultural biotechnology risks as perceived by consumers, and 6) understand and improve economic, organizational, and institutional approaches to value-enhancement and identity preservation.

In designing the IMBA research portfolio, the Executive Management Committee defines and seeks an appropriate balance among the above objectives, among projects with varying degrees of uncertainty and risk, and among goals that can be achieved in relatively short and long periods of time. Provision is made for some high risk funding of promising but unproven scientists with good ideas. Overall program evaluation is performance-based, in accordance with the principals of the Government Performance and Results Act.

Recent Achievements of IMBA Research.—IMBA-supported projects continue to progress on several broad fronts. To foster rational discourse on biotechnology, IMBA supported the initial development of AgBioForum, a unique, web-based, peer-reviewed journal designed to reach and educate a broad audience on issues of central importance. AgBioForum articles are widely reproduced in the classroom, by the media, and as references in academic journals. Total readership has surpassed 175,000 and include people from universities, industry, government, international organizations, and commercial sites, among others. Major themes in 1999 and 2000 issues of AgBioForum include: public acceptance of agrobiotechnology, industry consolidation, private-public interactions in agricultural biotechnology, farm level economics, agrobiotechnology in less developed countries, biotechnology and functional foods, regulatory approval of biotech products and functional foods, and economics of animal biotechnology.

IMBA scientists produced genetically transformed soybeans that are 20 to 60 percent higher in oil. Linkage maps and fast oil analysis procedures developed by this group will simplify selection of soybean lines for oil and protein content. Nucleotide sequence information they have collected is revealing the specific genes involved in protein and oil synthesis in soybeans and how these genes differ among lines with different oil quantity and quality. Progress is being made toward project goals of producing lines with increased total oil content and better fatty acid composition than major competing oils.

Drawing on support from IMBA, a scientist is making excellent progress on several fronts toward greater soybean resistance to sudden death syndrome (SDS) and soybean cyst nematode (SCN). He identified new markers for the most important SDS resistance genes, thus facilitating selection for these genes. One hundred thousand cultivars from 10 public and private breeding programs were screened in one season with these markers, yielding 10 with potential for superior resistance to both SDS and SCN. Two patents were generated by this project. The rapid selection tools are being commercialized. Private firms are developing varieties using this method. These varieties will be identified with a SDS-Guard trademark.

IMBA scientists pioneered nitrogen-related genetic changes that increase corn yield by 10 percent and reduce leaching of nitrogen into ground water. Seeds of six promising transgenic lines were provided to ICI Garst, Inc. to plant three field trials. Monsanto is also planting transgenic lines in four environments. Both companies are already developing second generation transgenics with enhanced performance. This project also generated two patents.

With support from IMBA, scientists are assessing the efficacy of adding isoflavones to corn foods as a way to reduce the incidence of breast tumors in animal models. The ultimate goal is to create transgenic corn that produces one or more of these unique compounds so that corn products are healthier for humans. Wild-type mice and mice lacking estrogen receptor alpha have been fed diets containing two isoflavones, namely, genistein and daidzein. In both cases, a link between activity of the gene and availability of the isoflavone has been established. The study was extended to include colon tumors. The research reveals an extremely complex relationship in which isoflavones may reduce or increase tumors depending on the genetic makeup of the animal. Knowledge gained in this research will allow scientists to predict negative and positive effects depending on an animal's or person's genetic makeup.

IMBA-supported scientists identified more than 8,000 diet-regulated genes, 33 of which map to locations associated with diabetes. Ultimately, it should be possible to identify each individual's unique food-related genetic profile, anticipate certain responses to food, and adjust eating habits accordingly. These tests will also facilitate treatment of various chronic and acute food-related disorders, including obesity, some forms of cancer, and heart disease. Results of this work are being commercialized by Electropharmacology, Inc., in partnership with major pharmaceutical and biotechnology companies.

IMBA-funded scientists are studying the process of apomyxis, which allows seed to be produced in the absence of sexual reproduction. If hybrid corn plants could

be produced that produce seed through apomyxis, that seed would produce plants genetically identical to the hybrid parents, unlike seed produced on current hybrid plants. This would enable farmers to save seed from hybrid parents for use as seed the next year. The goal is to reduce seed production costs while enhancing hybrid purity.

Phytic acid contains much of a plant's phosphorus. It is relatively undigestable to non-ruminant animals, including humans. Thus, much of the phosphorus is passed into ground and surface waters, creating pollution. IMBA scientists working to produce soybeans with low levels of phytic acid identified a bacterial gene that produces an enzyme, phytase, that breaks down phytic acid, making it digestible. They introduced this gene into a model plant, Arabidopsis, producing plants that store phytase in their seeds. Seeds are being ground and processed with corn meal to see if the soybean phytase will break down the phytic acid in corn meal. Phytase genes are also being introduced directly into soybeans. This opens up two possibilities: (1) a method to produce phytase as a feed supplement or for use in grain processing, and (2) to incorporate the phytase directly into feed crops, thus reducing their phytic acid content.

Several IMBA scientists are cooperating to develop high oil, high oleic acid oil, corn hybrids. Grain produced with these hybrids will command a premium based on higher digestible energy level, added value in manufacturing certain kinds of food products, and potential human health benefits. These scientists have identified molecular markers that will make it much easier to select for oil concentration and for specific fatty acid profiles. They also have developed new genetic constructs that, when introduced into elite germplasm, should enhance oil concentration and oleic acid concentration.

Cooperators.—Current cooperators in IMBA projects include the Universities of Illinois and Missouri, Southern Illinois University, Iowa State University, and the USDA-Agricultural Research Service group at Woodward, Oklahoma. Private, nonprofit cooperators include Sapient's Institute and Northwestern University. Commercial firms cooperating or involved in negotiations include Monsanto Company, ICI Garst, Inc., DuPont/Pioneer, ADM-Growmark, Clarkson Grain, Cargill, Biosys, Zeneca Agrochemicals, Novartis, DowElanco, Genentech, Healthtech, Electropharmacology, and others. Each project is generating potential new and improved products, and private firms are evaluating the commercial potential of each product of IMBA research.

Summary.—We believe IMBA projects constitute an outstanding portfolio of promising research investments focused on the major problems and opportunities associated with the U.S. corn and soybean industries. Because of the economically important subject matter being addressed by IMBA, unique opportunities afforded by advances in genomics, outstanding capabilities of participating institutions, and the innovative research management approach being employed, we believe that IMBA will continue to be highly productive and will generate an unusually high return on the Federal investment. This will more than justify the appropriations to date and the $3.0 million requested to continue the project in fiscal year 2002.

PREPARED STATEMENT OF THE UNIVERSITY OF ILLINOIS

Our testimony is on behalf of the Livestock Genome Sequencing Initiative (LGSI), an extremely important scientific initiative with profound implications for the future of U.S. agriculture. We request that $1.6 million be appropriated through USDA, coordinator of the international LGSI consortium, to complete the funding of Stage I for cattle ($800,000) and Stage I of the pig ($800,000).

These funds would be provided to the University of Illinois, as a member of international consortium, to lead the completion of the whole-genome physical map for cattle and for the pig. Specifically, the funding will be used to sequence the ends of 100,000 bacterial artificial chromosomes (BACs) that contain large inserts of cattle and pig DNA. This will enable scientists to build and enhance the quality of a whole-genome, high-quality physical map for each species, the critical first step in sequencing the genomes.

Concept.—International participants in a Livestock Genome Sequencing Initiative will create a map of the entire genomes of cattle and pigs and will sequence all the DNA in those genomes, so that every gene in each of the two species is identified by its unique sequence and location on specific chromosomes. The resulting map and sequence information will be placed in databases that can be accessed by scientists using bioinformatics to help establish the function of each of tens of thousands of genes, thus leading to valuable practical applications. Similarities to the human ge-

nome will be extremely useful in the mapping and sequencing effort and subsequent research.

Justification.—Mapping and sequencing genes are the essential first steps to learning the function of each gene. Knowledge of gene location and sequence, as is amply demonstrated by the human genome-sequencing project, opens a whole new vista of approaches to health, welfare, and quality of life issues and serves as the basis for future biological research. Diagnostics and cures for some of the major scourges of mankind, including cardiovascular disease, cancer, diabetes, and obesity are among the potentials of this initiative. In livestock, the initiative will enable powerful, environmentally safe approaches to disease prevention, resistance, and treatment; stress alleviation; increased productivity and profitability; improved food quality, safety, functionality, and diversity; improved odor and waste management; improved environmental quality; and enhanced quality of life for food animals. Most important, the initiative will address the growing aspirations of the world's population for nutritious, healthy, safe, and affordable livestock products.

Even though it is an international undertaking, there is a very important global competitiveness dimension to this initiative as well. To illustrate, China, the world's largest pork producer, and Denmark, the largest pork producer per capita and a major world exporter of pork and pork products, are launching an aggressive swine genome sequencing initiative. If the U.S. is to remain technologically competitive in global food markets, it is absolutely essential for the U.S. to be among the first to map and sequence food animal genomes. This fundamental biological information is the foundation for sustainable competitive advantage.

Economic Development Impact.—Rapid population growth, urbanization, and growing affluence in the most populous parts of the world are resulting in rapidly expanding world markets for livestock products. Enormous future growth is very likely, as developing countries improve both political and economic systems. To compete effectively for those markets, Illinois and the nation must be among the first to implement new livestock technology derived from genomics. Livestock production adds great value to the feedgrains produced in Illinois and the Midwest, and technological leadership will allow that value to be captured in the areas where the new technology is implemented.

The current $7.5 billion in cash value of agricultural products at the farm gate in Illinois alone would be multiplied at least 10-fold if feed grains were exported as livestock and other processed products instead of as grain or feed, with proportionate increases in other major livestock states. This increased value would accrue to Illinois and the nation as increased profits throughout the swine and cattle industries, reduced costs of government farm programs, increased employment and economic development, and improved consumer products.

University Capabilities.—The University of Illinois is uniquely positioned to lead in the mapping of the pig and cattle genomes. The University's Biotechnology Center, which includes the W. M. Keck Center for Comparative and Functional Genomics, provides one of the highest-throughput public gene mapping and sequencing capabilities in the nation, as well as a number of state-of-the-art genetic analysis capabilities, such as micro-array analysis. Cutting edge bioinformatics capabilities are provided by the National Center for Supercomputing Applications.

These superb research support capabilities enabled University of Illinois scientists to be the largest recipients of any institution of competitive Federal funding for cattle, pig, and soybean genome research. The infrastructure is further enhanced by sizeable public investments in facilities, including the Edward R. Madigan Laboratory and Post-Genomics Institute ($75 million of state funds, to be completed in 2002).

Additional state appropriations are enabling many distinguished scientists of demonstrated excellence to join a distinguished faculty that is already internationally preeminent in the genomics area. Also, the University has a long history of productive alliances and cooperation with other public and private institutions, both here and abroad, in biotechnology research. For example, the University was the first in the Western Hemisphere to import Chinese swine and exploit their advantages in prolificacy, disease resistance, and superiority for genetic research.

Sponsor and Funding Status.—Under the leadership of USDA–ARS, an international consortium for cattle and pig genome mapping and sequencing is being formed. The consortium, which will initially undertake the mapping of the cattle genome, is presently comprised of the USDA–ARS, University of Illinois, Shirakowa Institute of Animal Genetics (Japan), AgResearch (New Zealand), and the Alberta Livestock Genomics Initiative (Canada). Expectations are that by summer, 2001, the consortium will look to begin sequencing the pig genome.

The consortium will operate in two stages for each species. First they will create physical maps of the genomes, at a cost of $2.5 million per species. Then they will

sequence the genomes, so that the tens of thousands of genes can be identified. This second stage will cost about $97.5 million per species. The current consortium members have $1.7 million of the $2.5 million for the Physical Map (Stage I) for cattle. They expect to make available $1.7 million of the $2.5 million for the Physical Map (Stage I) for the pig. This leaves an immediate need for $800,000 dollars per species (total $1.6 million) to complete Stage I. Funds to invest in Stage II, the genome sequencing of cattle and of the pig, will be recruited from public and private sources by the international consortium.

Request and Summary.—For fiscal year 2002, $1.6 million is requested to be appropriated through the USDA to complete the funding of Stage I for cattle ($800,000) and of Stage I of the pig ($800,000). If appropriated, these funds will be provided to the University of Illinois, as a member of the international consortium, to lead the completion of the whole-genome physical map for cattle and for the pig. Specifically, the funding will be used to sequence the ends of 100,000 bacterial artificial chromosomes (BACs) that contain large inserts of cattle and pig DNA. This will greatly speed and facilitate building a whole-genome, high-quality, physical map of each species, the critical first step in sequencing the genomes.

PREPARED STATEMENT OF THE UNIVERSITY OF ILLINOIS

Our testimony is in support of a proposal to launch an innovative research program in a Renewables Bioprocessing Research and Development Laboratory under development at the University of Illinois. The mission of the Laboratory is to develop, test, and refine multistage processes by which major grains, especially soybeans and corn, are produced and converted to new and improved foods, feeds, pharmaceuticals, fibers and plastic materials, energy sources, and industrial feedstocks. We request $1.5 million to conduct integrated, multi-stage, "sample-linked" process research on specific soy- and corn-based products as a proof of concept and demonstration of approach.

Vision.—In the post-genomics age, it is possible for plants, animals, and microbes to be genetically altered in specific, controlled, and safe ways. This will lead to enhanced grains and other raw materials for manufacturing new and improved food and non-food products. The new foods will not only be safer, more nutritious, of higher quality, more convenient, and more affordable, but will also perform important medicinal and preventive health-related functions. They will prevent and mitigate important food-related diseases and maladies, such as cancer, heart disease, diabetes, and obesity; improve physical and mental performance; extend longevity; and, in general, increase quality of life.

Enhanced soy and corn foods will be prominent in these new developments. In many cases, specific pharmaceuticals designed to address major health problems will be produced in corn and soybeans. These crops have the advantage of not harboring potential contaminants, such as viruses and other pathogens that endanger humans and animals. Genomics will also open the door to a new vista of environmentally friendly, renewable resources, including animal feeds, bio-based textiles and other materials, fuels and other energy sources, and industrial feedstocks. Genetically altered microorganisms herald the day when corn and soybean constituents can be converted to virtually any desired end product in an efficient, industrial fermentation process. Illinois can capture great economic benefits by leading the way into this bio-based economy of the future.

Concept.—We plan to create a Renewables Bioprocessing R&D Laboratory, a unique facility and program in which soybeans, corn, and other grains can be initially separated into useful raw fractions, via wet or dry grain milling or other means, and further processed at pilot scale into various food, feed, and non-food finished products. The facility will be designed, equipped, and operated to conduct, on a pilot scale, all stages of multistage industrial processes in a coordinated, integrated manner, such that samples of raw grains that enter the facilities are identity preserved, monitored, and evaluated through entire processes leading to finished products and minimal, recycled waste streams. These unique capabilities and so-called "sample-linked" research approach will greatly expedite the development of new products and process technology based on genetic enhancement and will facilitate the design, engineering, and refinement of related equipment.

Need.—To assure that value added by genetic enhancement is realized by the end user, it is essential that enhancements are preserved from primary production, harvest, storage, and transportation operations through every step in complex, multistage processing and manufacturing processes to end-product packaging, distribution, and preparation. Thus, research on these new products must track quality changes in specific samples or lots all the way from genetic enhancement of

germplasm and breeding lines to customer satisfaction with the use of the final prototype product. Examples of such value chains would be those connecting genetically enhanced corn to cholesterol-lowering margarines containing appropriate levels of stanol esters; genetically enhanced soybeans to phytoestrogen-containing pharmaceuticals for post-menopausal women; and genetically enhanced soy that imparts to feed and hence to animal products a heart-healthy, high proportion of omega-3 fatty acids.

If the promise of genomics is to be realized in a timely and efficient manner, research and development leading to these new products and outcomes must be fully coordinated and integrated over several disciplines, functions, and stages in complex value chains. To reduce development time, research on the various stages must be concurrent rather than sequential, with research on each stage fully coordinated with other stages. Such research will require an extraordinary degree of cooperation and communication among diverse participants, especially among private and public participants. To be productive and cost effective, such research will require innovative and unique expertise, policies, protocols, procedures, facilities, and equipment. The Renewables Bioprocessing R&D Laboratory will meet these needs.

Location Advantages.—The Renewables Bioprocessing R&D Laboratory will be headquartered at the University of Illinois in facilities constructed as part of the renewal of the University's South Farms. This will put it in close proximity to field-scale grain production research facilities and feedlot scale animal production research facilities. It will also be conveniently located for participation by tenants in the University's new incubator and research park (south site). This will provide great advantages for small firms and startups that otherwise could not gain access to state-of-the-art facilities. While it will be most convenient for participation by regional institutions, agencies, and firms, other groups will be invited to participate in this unique program. Until the new facilities are in place, the program will utilize some space in existing pilot plants.

Related Facilities and Programs.—The Renewables Bioprocessing R&D Laboratory will complement various Federal facilities available at the National Center for Agricultural Utilization Research at Peoria. It will be differentiated from other facilities and programs in Illinois and other states by its special emphasis on feeds and foods, especially soy- and corn-based functional feeds, foods, and pharmaceuticals; its close coordination with and proximity to world-class plant, animal, and microbial genomics research and educational programs at the University of Illinois; and its support of research on waste stream management and recycling. Ready access to outstanding University of Illinois engineering and biomedical research capabilities will be valuable to public and private individuals, institutions, and firms using the facility.

Operation.—Each section of the Renewables Bioprocessing R&D Laboratory will be supervised by a professional trained and experienced in the category of activities carried out in that section and will be operated by experienced technicians. A director and staff will provide broad oversight, personnel management, financial management, and coordination. It is anticipated that when the Laboratory is complete and the concept fully refined and demonstrated, the Laboratory will operate on a fee-for-service basis, providing services at the marginal cost to both public sector and private sector clients.

Anticipated Questions.—The following questions might appropriately be asked concerning this proposal.

Question: Why not submit this request to various competitive grant programs, such as CSREES, NIH, or NSF competitive grants?

Answer: The proposed projects are not single investigator efforts, but extremely complex undertakings involving several disciplines, functions, and stages in complex value chains. Therefore they do not lend themselves to the typical single investigator competitive grant program. The purpose of such research is defeated if only one or a few stages of a multistage process can be investigated.

Question: If the goal of the proposed program is to develop food and non-food products, why shouldn't this reach be carried out by the private sector.

Answer. The private sector should be involved in this research, but only a very few, large private firms have the facilities and organizational capabilities required to carryout the research described. In fact, no private firms have the pilot-scale capabilities envisioned for the Laboratory. The advantage of the proposed facility and program is that university researchers, small and medium-sized private firms, and startups will have access to unique facilities, equipment, capabilities, and research protocols at a marginal cost. Through unique public/private cooperation, they will gain otherwise unattainable economies of scale and scope. Among other advantages, participants can address the needs of specialized niche markets that may not be ad-

dressed by larger firms. The vast majority of potential products fall into that category.

Budget.—We request an appropriation of $1.5 million to conduct the initial projects in the Renewables Bioprocessing R&D Laboratory and to refine and demonstrate the concept of fully-integrated, multi-stage, "sample-linked" research. These funds will be used to offset the costs of specific experiments conducted under the unique protocols of the Laboratory, including the design and installation of prototype processing equipment unique to specific projects. We believe this effort will clearly demonstrate the advantages of the integrated, sample-linked research approach and will create a large demand for services such as those provided by the proposed program.

PREPARED STATEMENT OF THE STATE OF ILLINOIS

As you begin to formulate your appropriations and funding priorities for fiscal year 2002, I respectfully urge you to consider the following items for inclusion in the upcoming agriculture appropriations bill. Each request is followed by a brief description of the project. These projects and funding requests are of particular importance to the State of Illinois and I hope that you will be able to include them in this legislation. In addition, I am grateful for all assistance that you have been able to provide to the State of Illinois—your efforts are greatly appreciated and provide numerous benefits throughout the state.

NATURAL RESOURCES AND ENVIRONMENT

Illinois River Basin Restoration Program, "Illinois River 2020"—Farm Bill Components

The Illinois River Basin Restoration Program is a comprehensive proposal of authorizations and appropriations that will address the serious threats to the Illinois River and its tributaries and implement Illinois' goals for the restoration, enhancement, and conservation for the Illinois River and its 55 county watershed. The Illinois River Basin Restoration Program is a two-tiered approach to provide a voluntary, incentives-based program that restores and protects the Illinois river hydrology and water quality, addresses urban non-point source issues, farmland protection and open space, land treatment for stormwater, and best management practices for upland areas that drain into the river and its tributaries.

The following natural resources and environment requests relate directly to the Illinois River Preservation Initiative:

Environmental Quality Incentives Program (EQIP)

Request. Fully fund the Environmental Quality Incentives Program (EQIP) at its authorized level and increase Illinois' share by $4 million.

The EQIP provides financial, technical, and educational assistance to farmers and ranchers who wish to implement conservation on land currently in production. Half of the program funds must be used to address livestock-related concerns. Illinois only received $2.5 million in EQIP dollars in 1998, 1999, and 2000 respectively. There were shortfalls of $2.5 million in fiscal year 1999, and $4.7 million in fiscal year 2000. In 1999, over 160 landowners could not participate in the program because there was a shortfall of $1.8 million for projects.

Wildlife Habitat Incentives Program (WHIP)

Request. Dedicate $100,000 in fiscal year 2002 to the Wildlife Habitat Incentives Program (WHIP) for the Illinois River Basin.

WHIP offers cost-share assistance for up to 75 percent of the habitat restoration expenses and technical assistance for farmers, ranchers and other landowners who wish to implement wildlife habitat practices. Eligible practices include native grass restoration, riparian area restoration, and aquatic habitat establishment.

Conservation Reserve Program (CRP)

Request. Designate 200,000 acres of Conservation Reserve Program acres to the Illinois River Basin for fiscal year 2002.

The CRP provides farmers with technical and financial assistance, including annual rental payments, in exchange for removing environmentally sensitive land from production and implementing conservation practices such as wildlife habitat restoration and field windbreaks. This expansion of acreage would bring an estimated $909 million in new Federal funding to Illinois for restoration over 15 years of the CRP contract lifetime.

Wetlands Reserve Program (WRP)

Request. Dedicate 1,000 acres of Wetland Reserve Program to the Illinois River Basin for permanent easements.

The WRP offers technical and financial assistance to farmers who wish to restore and protect agricultural wetlands. The USDA provides up to 100 percent of the wetland restoration costs and up to 100 percent of' the fair market agricultural value of the land in return for permanent or 30-year easements or wetlands restoration cost-share agreements. The allotment of this acreage would bring an estimated $1.5 million in new Federal funding to Illinois for wetland restorations.

Conservation Reserve Enhancement Program

Request. Expand the CREP in Illinois from 100,000 acres to 232,000 acres.

Currently, the State of Illinois has in place a 4-year CREP agreement, which began in State fiscal year 99 to enroll 100,000 acres. The State of Illinois has dedicated $18 million to fulfill the last two years of the agreement, which expires in fiscal year 2002.

To date, Illinois leads the nation in the number of acres that have been enrolled with 66,000 (9,000 acres pending approval), which is three-quarters of the state's goal. This enrollment of acres outpaces the other states by 3 to 1. Expansion of the number of acres allotted to Illinois from 100,000 to 232,000 will enable the state and its partners to enroll the most crucial areas of land in the floodplains within the Illinois River Basin. These additional 132,000 acres will have the greatest impact to the full restoration of the basin.

Technical assistance for Farm Bill Program implementation is a $345 M nationwide deficit. In Illinois specifically, that deficit is over $9 M. Increases in technical assistance funding is needed to properly, implement the Farm Bill programs associated with the Illinois River Restoration Program.

Mahomet Aquifer Consortium

Request. A total of $10 million for an extensive study of the Mahomet Aquifer in Central Illinois over ten years.

The Mahomet Aquifer Consortium is proposing a study of the Mahomet Aquifer in Central Illinois. Tile Study will identify and resolve water quality and quantity issues, help ensure a water supply for the future, optimize future water costs, and promote planned economic development for the communities affected by the aquifer. The project is broken down into 2 phases with phase one taking 3 years and an estimated cost of $4 million. Phase two will cost $6 million and take 6 years to complete.

Illinois Groundwater Initiative at Southern Illinois University Carbondale

Request. $1 million to establish a small outreach center in southern Illinois, plus $600,000 annually for three years to continue research funding for publications and data to be used by farmers, educational institutions, and management agencies. Funding is sought from the Agriculture Appropriations bill through USDA's Cooperative State Research, Education, and Extension Service.

The Illinois Groundwater Consortium (IGC), established in 1990, has been funded by Congressional appropriations to investigate short- and long-term effects of agricultural chemical contamination on groundwater, the environment, and ultimately, human health and welfare. Consortium members—the Illinois State Geological Survey (ISGS), the Illinois State Water Survey (ISWS), Southern Illinois University Carbondale (SIUC), Southern Illinois University Edwardsville (SIUE), the University of Illinois (UIUC) Agricultural Experiment Station, and the University of Illinois Cooperative Extension Service—have been working together to provide a scientifically valid bases for agricultural chemical management and regulatory decisions affecting groundwater.

During its first years, the IGC focused on issues of agricultural contamination of groundwater resources. Between 1996 and 1999, IGC-funded research was directed to the effects of and recovery from the extensive flooding that occurred in 1993–94 along the Mississippi, Missouri, and Illinois Rivers and their tributaries. In the fiscal year 2000–2001 funding interval, research is focusing on the effects of land-use practices and changes in land-use practices on groundwater quality and quantity, with an emphasis on long-term (past and future) assessments and consideration of cultural (social, political) contexts of decision-making. During the fiscal year 2001–2003 funding period, research will continue to focus on the above but with greater emphasis on water quantity issues and educational outreach to management agencies, education institutions, and farmers in the form of "user friendly" publications.

AGRICULTURAL RESEARCH AND ECONOMICS

Economic Assistance for Agriculture

Request. Plan for the possible need of farm income assistance in fiscal year 2002, including the doubling of the AMTA payment to farmers and producers.

Unless market conditions improve for the 2001 crop year, support for farmers and ranchers will be needed. In the fiscal year that ended September 30, 2000, USDA made a record $28 billion in direct payments to farmers and ranchers to help them weather these low commodity prices. In the coming months USDA will be distributing more that $4 billion in additional emergency funds. Similar funds will be needed in fiscal year 2002.

Farmers and ranchers continue to experience very difficult market conditions, with many commodities at or near their price lows. Under the 1996 Farm Bill's formula, marketing assistance loan rates could fall from the current levels if directed by the USDA Secretary. Based on current projections, for example, the corn loan rate would fall from $1.89 per bushel to $1.76; the wheat loan rate would fall from $2.58 per bushel to $2.43; and the soybean loan rate would fall from $5.26 per bushel to $4.92. A change in loan rates or a decrease in farm and ranch income will be detrimental to the rural economy.

Federal-State Cooperation in Warehouse Examination Agreements

Request. $400,000 Federal reimbursement for state examinations used by the Commodity Credit Corporation (CCC). This would be a new program requirement for USDA.

In 1997, USDA terminated its cooperative agreement with states to reimburse them for grain elevator examinations performed by state inspectors. Illinois' inspectors continue to inspect and share this same information with CCC, but receive no Federal reimbursements for their efforts. Given the fact that today's corn and soybean crop prices are near their record lows and participation in CCC's programs are at record highs either in LDP's or CCC loans, the Department is asking USDA to again cost share the additional expense of time spent on warehouse examinations by Department staff.

Prior to 1985, Federal policies dictated that commodities would be isolated from market prices and forces until prices rose to specified levels. As a result, large inventories and U.S. government owned commodities and commodities pledged as collateral for price support loans accumulated and the facilities in which these commodities were stored had to be examined to adequately protect the Commodity Credit Corporation's (CCC) interests.

This led to CCC relying heavily on cooperative agreement with the Department because the volume of workload associated with these high stock levels did not make it feasible for CCC to hire and train a workforce that would be adequate to conduct all the necessary examinations. USDA terminated this program in 1997 after the enactment of the farm bill and the low amount of commodities under loan and CCC control. Illinois' storage share and Federal reimbursements were: In 1993/4, 7.78 million bushels of grain stored—$364,920 reimbursed; in 1994/5, 7.87 million bushels—$364,820 reimbursed, in 1995/6, 8.04 million bushels of grain—$379,487 reimbursed.

Agricultural Research Funding

Request. Increase USDA ARS Research funding by $1 billion a year, which would provide approximately $60 million to Illinois.

Food and fiber are fundamental to life and health. Federal spending on health research has more than doubled. Today, Federal spending for the National Institutes of Health is nearly $18 billion, 10 times that of food and agricultural research, extension and education at USDA. By any comparison, whether in terms of payback, future potential, or importance to the average family, Federal investment in food and agricultural research is woefully inadequate.

Publicly supported food and agricultural research and education were major contributors to the ascension of the U.S. during the "American Century." U.S. food and agriculture researchers and educators contributed to the Green Revolution that saved a billion people from starvation. Promising research breakthroughs in genetics, nutrition, information technology, food production and safety and ecosystern management hold great potential for even greater strides in the 21st century.

Despite being the best-fed nation with the lowest share of income spent on food, many critical national food, agricultural and natural resource challenges remain. Some $100 billion of annual health costs are linked to poor diets and food-borne pathogens. Agriculture's continued viability and competitiveness in the global food system depends on technological, management and policy advancements based on

the most sophisticated cutting-edge research and education. The public has rising expectations for a clean and healthy environment and a safe, nutritious and health enhancing food supply.

Scientific studies document that each taxpayer dollar spent on agricultural research, extension and education pays back $8 in public benefits. These benefits are proportionately greater for low income and disadvantaged, who spend a much larger proportion of their incomes on food. Yet, after adjusting for inflation, federal investment in food and agricultural research has been flat for two decades.

Create a Joint USDA-IllinoIs DNR Invasive Species Program

Request. Direct $5 million per year through USDA–ARS to Illinois to create, on the campus of the University of Illinois, a unified, collaborative USDA–IDNR Invasive Species Laboratory and program on research, implementation and outreach against invasive species affecting Illinois.

Invasive species cost Illinois citizens millions of dollars annually for control and loss of value of crop and natural lands. While some control efforts are well coordinated among State, local and Federal partners it is not true for control of many exotic species. Creating a collaborative program to develop and implement solutions to invasive plant and animal species in agricultural, forest, waterway and natural areas will benefit all the State's citizens and businesses. Research and outreach efforts require surveying for new invasives, developing novel management strategies, preventing new invasions, and educating Illinois', citizens about invasive threats and the potential benefits from these solutions.

Invasive species affect every Congressional district in Illinois. Species affecting Illinois include kudzu, Chinese soybean aphid, Asian longhorned beetle, gypsy moth and zebra mussel. Illinois is fighting invasive species, but efforts to find solutions are limited by lack of funds for research and implementation. The Illinois Natural History Survey in Champaign has a research and outreach program addressing Illinois' invasives. USDA–ARS has an Invasive Weed Management Research Unit on the UI campus. Creating and funding a joint program on the UI campus reduces redundancy, builds on strengths of each program, and unifies efforts by USDA, IDNR, and IDA, making Illinois a leader in the fight against invasive species. Funding to assess new and current invasives, develop and implement novel long-term solutions, and produce high-quality materials for the public and schools throughout Illinois will benefit the entire State.

Value-Added Agriculture

Request. Increase overall funding to USDA programs like Rural Business Cooperative Services Agency, Rural Business Programs, Cooperative Development Grant Programs, Value Added Grant Programs, Rural Business Enterprise Grant Programs, and Rural Business Cooperative Services Programs/Rural Development Mission statement areas and in the areas of biotechnology, biofuels, and biomass research and developments.

Each part of the U.S. is unique in terms of agronomic conditions, on-farm resources, access to markets, the price basis, transportation systems, and other factors. These factors all affect the types of specialty crop and livestock that can be profitably produced as well as the potential for value-add processing in each ecoregion.

To maintain the diversity of U.S. agriculture, agribusinesses and food processing and manufacturing industry, to create a unique opportunity for farm families and rural communities in the global food economy, and to create an agriculture and food system that uses natural resources wisely, a major commitment is needed now to develop policies and make critical investments that will advantage the U.S. economically in the high tech competition of the 21st century global food and agriculture system.

There is significant potential for collaboration in innovations to create the new economy food and agriculture sector with major private sector partners such as DuPont, Monsanto, Rennessen, Syngenta, Protein Technologies International, ADM, Kraft Foods and others, as well as new era producer cooperatives and producer alliances.

The "first wave" of agribiotechnology has been dominated by designer input traits that improved yields and lowered costs by incorporating herbicide, disease and insect resistance into corn and soybeans. Bt corn and Roundup Ready soybeans are examples. Rootworm resistant corn is on the horizon. First wave advancements will continue and will accelerate.

The "second wave" of agribiotechnology is rapidly approaching. It focuses on value-enhanced traits, bioproducts and functional food and pharming. Examples include: unique traits in corn, soybeans, and wheat that create value for livestock

feeders and food companies; in improved processing efficiency and for energy, industrial, and human health applications.

Bioengineering plants and animals to produce nutraceuticals and farmaceuticals, such as cancer preventing agents, will change the health care industry and bring integration with agriculture. Edible vaccines delivered through fresh foods like apples or potatoes will change the landscape of drug production and delivery. Corn modified to fight osteoporosis; and soybeans, with unique human disease resistance qualities and health improvement attributes, will turn commodities into functional food products.

On "Pharms," herds of novel transgenic animals will serve as "bio-pharmaceutical factories" to produce drugs, medicines and even organ donors for human transplants. A genetically engineered dairy cow, goat and/or sheep herd will produce medicines deposited in milk at a fraction of the cost of traditional methods of production.

Bioproducts and biochemicals bioengineered from plants will support biobased value-added products and fuels for domestic use and export replacing petrochemical feedstocks with biomass materials. Biobased fuels, such as ethanol, produced from customized plant biomass technologies using cost competitive bioprocesses will dramatically reduce dependence on imported oil.

Federal policies must be responsible, support these new ventures, and regulate with sound science principles.

Environmental Research and Outreach Programs at the University of Illinois (At Urbana/Champaign)

Request. $130,000 for the Illinois Water Resources Center; $1.1 million for the Illinois-Indiana Sea Grant College Program; and $700,000 for the Midwest Technology Assistance Center.

The concept of this proposal is to build on existing Federal/State partnerships to help Illinois communities and agencies address issues of natural resource development and protection. The proposed program draws on three statutory programs for research and outreach on natural resources and the environment: (1.) In partnership with the U.S. Geological Survey, the Illinois Water Resources Center receives federal matching funds to conduct university-based research and outreach on water resources issues. (2.) In partnership with the National Oceanic and Atmospheric Administration, the University of Illinois and Purdue University jointly conduct the Illinois-Indiana Sea Grant College Program. Sea Grant conducts research and outreach to help citizens and communities understand and manage coastal resources. (3.) In partnership with the U.S. Environmental Protection Agency, in 1998, the Midwest Technology Assistance Center (MTAC) was formed at the University of Illinois to help small communities solve problems of safe drinking water supply. By strengthening these partnership programs, the proposed research and outreach will improve knowledge of Illinois' natural resources and their wise use in economic development.

Illinois-Missouri Biotechnnology Alliance

Request. $3 million in funding for the Illinois-Missouri Biotechnology Alliance.

The State of Illinois supports funding for the Illinois-Missouri Biotechnology Alliance to continue research at the Universities of Illinois and Missouri on biotechnology. Congress appropriated $1.184 million in funds for this project in fiscal year 2000. The Illinois-Missouri Biotechnology Alliance is a competitive grants program focused on biotechnology issues related to the production and utilization of corn and soybeans as they are produced in the mid-western U.S.

Soybean Disease Biotechnology Research Center

Request. Request $3.5 million for fiscal year 2002

It would be established within the National Soybean Research Laboratory (NSRL) at the University of Illinois, the Center will be the first line of defense against major soybean diseases that threaten the most important "biofactory" of new foods and uses in the future, namely, the soybean crop. Scientists in the Center will employ cutting edge biotechnology research to provide soybeans with new and improved mechanisms of escape from, tolerance of, and resistance to major pathogens, including soybean cyst nematode (SCN) and other soy diseases that threaten the profitability of the soybean industry. The Center will draw on the 17,000 lines in the National Soybean Germplasm Collection at the NSRL and apply the power of structural, comparative, and functional genomics and genetic transformation. The Illinois soybean industry will provide funds to help establish the Center and support its research program.

Center for Alternative Agriculture Crops and Products

Request. $1.95 million for the Center for Alternative Agriculture Crops and Products at SIU-Carbondale.

This center synergizes various corporations, agencies, and regional universities of the heartland and midsouth to explore alternative income crops and products for Southern Illinois, Illinois, and the region. Emphasis would be on increased farm income and increased rural development through added production, processing, and employment. The plan calls for $1.95 million for renovation and expansion of a 13,000sq. ft. building on SIU-Carbondale campus.

SIU Soybean Genomics Lab

Request. Seek 189,000 for the Soybeans Genomics Lab at SIU.

Expand the current laboratory to accommodate four added faculty researchers in soybean genomics and transformation.

Renewables Bioprocessing Research Program

Request. Seek $20 million for the Renewables Bioprocessing Research Program at the University of Illinois.

The Renewables Bioprocessing Research Program (RBRP) is an effort by the University in collaboration with other agencies and institutions to provide "plant to product" research information for the production and processing of corn, soybeans, and wheat. Objectives of the RBRP program are: (1.) Establish an interdisciplinary collaborative research effort in the production and development of new food and industrial products from corn, soybeans, and wheat coproducts; (2.) Establish an interdisciplinary collaborative research effort to improve the overall efficiency of converting renewable corn, soybean and wheat coproducts into saleable products; (3.) Enhance the development of small-scale laboratory procedures to accurately predict the genetic capabilities of different genotypes, phonetypes, and varieties to make desired end use products; and, (4.) Provide commercial companies with a single integrated program of contract research.

EDUCATION AND TRAINING

SIU/U of I Outreach Center

Request. Seek $1.8 million for a joint SIU/U of I outreach center. Located on the Carbondale, IL Campus, University of Illinois Extension Service and SIU College of Agriculture Agribusiness Economics Department will partner to serve Southern Illinois constituents via on-site classroom instruction, digital television delivery, and web-based access. Building 103 on the Carbondale campus would be renovated, expanded, and rewired. Estimated cost is $1.8 million.

SIU Plant and Alternative Crop Training Center—Belleville, IL

Request. Seek $2.5 million for a Plant and Alternative Crop Training Center at Southern Illinois University Belleville Research Station.

Add a 10,000-sq. ft. facility for university and industrial training on the SIU Belleville Research Station site near the Mid-America airport. The facility would allow agricultural industries of the Metro-East (St. Louis) area to have access to an indoor multimedia training/meeting facility. This plan allows for synergy with Donald Danforth Plant Science Center shared use of land and 1,200-sq. ft. of wet-laboratory space. Construction cost is estimated to be $2.5 million.

FOOD SAFETY AND INSPECTION SERVICE

Wholesome Meat Inspection Program Cost Share

Request. Increase USDA support of Illinois' Wholesome Meat Inspection Program to cover 50 percent of the total program cost as required in the joint State/Federal cooperative agreement. The Federal allocation required in fiscal year 2002 is $5,224,155 (an additional $638,155 over the fiscal year 2000 allotment).

The State of Illinois maintains a Wholesome Meat Inspection program as part of a cooperative agreement with the Federal government's Cooperative Inspection Program of the United States Department of Agriculture's Food Safety and Inspection Service. The cost of the state Wholesome Meat Inspection program is designed to be shared evenly (50/50) with the Federal government. However, the Federal government is not meeting its commitment to fund 50 percent of the state program costs. Federal program officials indicate that meeting 50 percent of program costs is a goal that they have been unable to reach as the Federal appropriations have been relatively flat over the last several years and new states have joined the program (most recently Minnesota).

Federal officials appear to have considerable leeway in determining the distribution of funds among the states, considering each state's budget request to determine the most equitable distribution of limited available resources. The Federal government should increase the total Federal appropriation so that all states can be funded at 50 percent of program costs.

National Center for Food Safety & Technology at IIT

Request. $3 million through Agriculture Appropriations bill for the National Center for Food Safety & Technology at the Illinois Institute of Technology.

IIT seeks continuation of the $3 million received annually by its National Center for Food Safety & Technology. Through the leadership of Senator Durbin and Congressman Lipinski, the Center received $3 million in both the fiscal year 2000 and 2001 Agriculture Appropriations bills. The Center needs the funding to continue its progress in fighting the growing incidence of food borne illness. The Center will continue developing its pilot plant into a state of the art food processing-pathogen laboratory. The Center's goal is to be able to stage multiple full-size trials and then transfer the technology to food production facilities. Another goal is expanding the Center's collaboration with the food industry. The Federal funding has improved the Center's programs so that more food companies want to join the Center for help In protecting their processes. Over the last two years, food company membership has grown from 43 to 75.

Quality Assurance Pilot Certification Program for Small Meat Processors

Request. Seek $250,000 a year for three years to establish a Quality Assurance Certification Program under the IL Dept. of Agriculture for small meat processors.

This Pilot Program is an effort by the Department to establish a Quality Assurance Certification Program for small meat and poultry slaughter and processing plants. Under this certification program, the Department will contract with food safety experts to provide education and HACCP compliance training to plant management and employees. After completion of the project, material can be used by other states.

National Food Testing Center at the University of Illinois

Request. Seek $25 million to create a state of the art National Food Testing Center at the University of Illinois.

To create a state-of-the-art facility for conducting safety and efficacy research on new, improved, and functional foods, including health-related, genetically enhanced foods. The National Food Testing Center will support and expedite the most important experiments on foods, that is, tests to assure that they are safe and effective. Through these experiments, hundreds of new and improved foods and related products will be tested and approved for human use, resulting in greatly improved human health, quality of life, and longevity. This will enable the U.S. to capture proprietary benefits from its investment in agricultural and biomedical research. In addition, consumers of these products will be fully confident that these products will be safe and effective.

ANIMAL RESEARCH

Transgenic Animal Research Center at Southern Illinois University Carbondale

Request. $370,000 for the Transgenic Animal Research Center at Southern Illinois University Carbondale (SIUC).

Both the SIUC College of Agriculture and the SIU School of Medicine are in an excellent position to move forward with new and intensive technology research and education initiatives in transgenic livestock research, including cloning, gene, and disease research. It is necessary, however, in order to renovate and expand existing facilities at the SIUC livestock production units and to create two laboratories at the School of Medicine in order to meet NIH guidelines for containment and confinement of transgenic animal, provide laboratory and surgical space, and veterinarian office space.

At the School of Medicine, SIU proposes to develop a core facility in the animal laboratories at SIU School of Medicine. This core facility will enhance ongoing and proposed genetics research and allow faculty of the SIU School of Medicine to study the gene/disease relationships. This facility will permit the genetic construction of mice that either express or do not express the genes that have been identified as important in the development of a particular disease.

Livestock Genome Sequencing Initiative at University of Illinois (Urbana/Champaign)

Request. $1.6 million in Federal funding is requested through the USDA–ARS to the University of Illinois for this initiative.

International participants in a Livestock Genome Sequencing Initiative (LGSI) will create an ordered map of large insert DNA clones covering the entire DNA in major species of food animals (i.e. cattle and pigs) and will sequence all the DNA in those clones, so that every gene in each of those species is identified. The resulting map and sequence information will be placed in databases that can be accessed by scientists using bioinformatics to help establish the function of genes, thus leading to valuable practical applications. In order to obtain timely access to the resulting information, it is especially important for the University of Illinois to be involved in leading the effort to map and sequence the cattle and swine genomes.

National Food Animal Institute

Request. $1 million a year for three years.

The Institute would be established by the Department of Agriculture in Illinois to review research through peer review and to publish and disseminate unbiased information about all the aspects of the food animal industry. It would maintain comprehensive information systems for the improvement and enhancement of the food animal industry for use by the public, government agencies, other interested parties. The Institute must fulfill its purpose with unbiased integrity.

Johne's Disease Pilot Program

Request. Seek $1 million over a three year period to start a pilot program in IL under the IL Dept. of Agriculture.

Johne's disease is a wasting disease of cattle, sheep, goats and cervidae. This disease is contracted through direct contact with infected animals, which are generally infected at a young age, but may not exhibit signs of the disease until they are four or five years of age. There is no cure for Johne's disease. It has been estimated that economic losses can amount to $227 per cow. A recent National Animal Health Monitoring System (NAHMS) sampling of Illinois dairy cows, indicated a prevalence of at least 10 percent in the cull cows from the dairy herds tested. Illinois would like to start a pilot program that could be used as a model for the U.S.

ANIMAL PLANT HEALTH INSPECTION SERVICE (APHIS)

National Coolwater Broodfish Center at Southern Illinois University Carbondale

Request. $1.25 million for the National Coolwater Broodfish Center at SIUC.

A crucial need exists for selectively bred coolwater broodfish (sexually mature fish that are used to produce offspring for stocking) such as hybrid striped bass, largemouth bass, sunfish, walleye, yellow perch, as well as coolwater strains of trout and catfish. Domestication and selectively breeding are necessarily long-term activities that cannot be expected to be supported by traditional granting programs that are almost universally limited to time horizons of just a few years.

The objectives will be to domesticate suitable strains of coolwater species for commercial foodfish production, selectively breed coolwater fishes for desirable traits (rapid growth, disease resistance, better dress-out, etc.), maintain genetic histories of coolwater broodfishes, and provide selectively bred coolwater broodfishes to the aquaculture industry. The National Coolwater Broodfish Center, in conjunction SIU's other programs, will serve as a powerful catalyst for aquaculture development in the U.S.

Should you need additional information, please do not hesitate to contact Derek Persico in my Washington, DC office at (202) 624–7762. Thank you for your consideration of these requests and for your leadership on this most important legislation.

PREPARED STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

The Natural Resources Conservation Service has immense responsibilities for implementing the conservation provisions of the 1985 Food Security Act (FSA), the 1990 Food, Agriculture, Conservation and Trade (FACT) Act, and the Federal Agricultural Improvement and Reform (FAIR) Act of 1996.

WRP, WHIP, FPP and EQIP.—The Wetlands Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP) and Farmland Protection Program (FPP) have reached their authorized acreage or appropriation caps and USDA characterizes

them as "completed". This is particularly perplexing since these are all voluntary, incentive based programs that are currently well over-subscribed. These programs not only provide income support for agricultural landowners, but they also help landowners meet their natural resources conservation objectives in ways that are alternative to regulatory controls.

Wetland conversions continue and wetland resources cannot be sustained without a proactive program like WRP that compensates landowners for voluntary restoration of wetlands. WRP is currently over-subscribed by a factor of 5, with many eligible landowners already qualified but unable to enter the program since it has bumped up against its statutory acreage enrollment cap.

Similarly, many wildlife species reside on agricultural landscapes and have nowhere else to go—they must survive on those landscapes if they are to survive at all. WHIP has helped many landowners make meaningful contributions to conservation of imperiled species of wildlife and landowner interest in this program has far exceeded available funding.

In a like manner, the FPP has been important in places where urban encroachment diminishes the long-term viability of the local farming economy and interest in the program far exceeds acreage availability.

While the program caps for WRP, WHIP and FPP have been reached, these caps are arbitrary in the sense of natural resource sustainability and should not be viewed as reasons for ending the programs. To the contrary, none of these programs (WRP, WHIP or FPP) have outlived their critical and key role in conservation.

In addition, funding for the Environmental Quality Incentives Program (EQIP) has been insufficient to meet landowner interest and needs. The EQIP program can help agricultural landowners achieve remediation of non-point source runoff via a voluntary, incentives-based program, as opposed to the strict imposition of regulatory controls on a farm-by-farm basis.

All four of these programs have all been tremendously popular and successful. Due to the overwhelming success, customer acceptance and public benefits of these programs, the Association strongly encourages Congress to reauthorize and fund WHIP at $100 million, FPP at $65 million, EQIP at $300 million and WRP at $286 million, which will support an increase in the enrollment cap for WRP by 250,000 acres in fiscal year 2002.

Technical Assistance.—The NRCS Strategic Plan for 2000–2005 establishes natural resource priorities in support of agriculture and identifies staffing levels needed to achieve success. The Strategic Plan projects a steadily increasing need for technical assistance through 2005. Adequate technical assistance will be essential to ensure private landowners can deliver the conservation of natural resources while also providing affordable food for our citizens. However, despite increased workloads and increased societal demands on land and natural resources, NRCS staffing levels have been flat in recent years and the fiscal year 2002 budget proposal actually reflects a decrease of 301 staff years. The rationale for the 301 staff year reduction is tied to loss of emergency funding to support the Emergency Watershed Protection Program and, thereby, reduces the ability of NRCS to respond to emergencies. This reduction is inconsistent within the overall USDA budget proposal in that the FSA budget proposal reflects an increase of $120 million for increased staffing to better respond to agricultural emergencies even though emergency funding has been eliminated there as well.

It seems prudent for both NRCS and FSA to be adequately staffed to ensure quick response to emergency situations. In addition, the Conservation Reserve Program (CRP), WRP, WHIP and EQIP all reflect long-term contracts that necessitate continuous technical support to participants, whether or not there is new sign-up. Notably, $44 million of the $58.4 million CTA increase shown in the fiscal year 2002 budget proposal is actually a budgetary shift from CCC funds (for CRP technical assistance) that allows NRCS to stay even in regard to supporting CRP, rather than an actual increase in CTA. The Association strongly encourages Congress to restore the 301 staff year reduction reflected in the fiscal year 2002 budget proposal as well as providing the addition of sufficient staff years to begin to address the nearly 24,000 staff years (compared with 11,200 staff years in the fiscal year 2002 budget proposal) identified for 2002 in the NRCS Strategic Plan for 2000–2005.

Increasingly, State fish and wildlife agencies are contributing staff time to help NRCS field offices service fish and wildlife aspects of USDA assistance to private landowners. Such partnerships can help NRCS deliver specialized technical expertise to private landowners at less cost than adding staff with this expertise. The Association strongly encourages the Administration and Congress to emphasize partnering arrangements, between NRCS and State fish and wildlife agencies and others, that result in cost-efficiencies through a challenge-grant program initially funded at $5 million in the fiscal year 2002 budget.

Wetland Determination.—We believe the need for wetland determination, certification, and mapping is great and urge NRCS to proceed as soon as possible, under the guidance of the FAIR Act of 1996. The Association urges expeditious completion of the wetland determinations required to implement the Swampbuster provisions of the 1985 FSA, 1990 FACT Act, and the 1996 FAIR Act as well as the FAIR Act directed interagency cooperation, whereby NRCS assumed responsibility for wetland designation for Section 404 (Clean Water Act) purposes on farmland, including tree farms, rangelands, native pasture, and other private lands used to produce or support the production of livestock. The Association and individual State fish and wildlife agencies will continue to work with NRCS to help achieve these goals.

Public Law 566.—The Association generally supports small watershed (Public Law 566) projects. Support is based upon continued emphasis on updated watershed planning and management. Such efforts could utilize and expand upon existing Public Law 566 plans in light of present day issues of wetland protection, water quality enhancement and fish and wildlife habitat. The greatest potential for these programs is for land treatment measures that retain the water on the land in concert with stream flow that is adequate to sustain diverse aquatic life, improve infiltration, improve water quantity and quality, and provide fish and wildlife habitat. Structural and non-structural land treatments require state and local matching funds to leverage greater conservation benefits for each Federal dollar spent while promoting valuable partnerships among states, local agencies, and other organizations. The Association supports the level of funding for Public Law 566 that is reflected in the fiscal year 2002 Budget.

National Buffer Initiative.—NRCS has implemented this initiative in cooperation with industry and other partners. The National Academy of Sciences has found that buffer strips can reduce off-field pollution by 70 percent, thus also contributing to meeting non-point source remediation goals under the Clean Water Act. Unfortunately, the level of sign-up by producers remains very low. NRCS has committed special emphasis and a major effort to use the buffer strip practices covered by the continuous CRP sign-up in a more targeted fashion. However, there is no mention of the National Buffer Initiative in the fiscal year 2002 budget narrative. Unlike the large or whole field CRP retirements, buffer strips will require extensive outreach and specialized incentives that fairly compensate landowners. The Association encourages NRCS to continue the National Buffer Initiative as a high priority effort.

Forestry Incentives Program (FIP).—The Forestry Incentives Programs (FIP) has multiple resource values for fish, forests, wildlife, clean water and erosion control. Many farms contain forest resources that are as in need of conservation treatment as cropland and grassland. The Association opposes the NRCS proposed intention to zero out FIP funding and strongly recommends that the fiscal year 1999 level of $16.325 million be restored in the fiscal year 2002 budget.

PREPARED STATEMENT OF THE JOSLIN DIABETES CENTER

INTRODUCTION

Mr. Chairman, thank you for this opportunity to submit a statement for the public witness hearing record. The subject of this short statement is the continued funding in fiscal year 2002 for the Diabetes Project in the Extension Service of CREES. We have developed a plan for fiscal year 2002 that will require continued funding at the current year's level of $926,000. This includes costs of Federal Administration, participation expenses of the states of Washington, New Mexico and Hawaii, and the personnel, equipment and associated costs of Joslin Diabetes Center within the total cost of the program.

FISCAL YEAR 2001 BACKGROUND

I would like to express Joslin Diabetes Center's sincere appreciation to Representative Nethercutt and the Subcommittee for actions in the fiscal year 2001 process in providing $926,000 for the third year of the Diabetes Project. We know you faced difficult decisions concerning funding priorities. We feel that the allocation of these funds indicates support for the growing community role and organizational flexibility of the Extension Service.

Recently Joslin, Washington State, Hawaii, and Federal Extension personnel attended an all day planning session for the current year and reviewed accomplishments to date on this project. A summary of each of these segments will be forwarded to the committee staff when available.

Through fiscal year 2001 funding retinal imaging equipment will be installed in all three states, with image acquisition and training, and image reading procedure

in place. At a rate of 30 patients per day per site, the three units will have the capacity to screen 18000 patients annually. This actually involves the examination of 36,000 eyes, because a patient can develop diabetes retinopathy in only one eye.

All participants remain committed to goals and objectives of the original project and are planning cooperatively for this and the coming fiscal year.

FISCAL YEAR 2002 PLAN

For fiscal year 2002, the mission and objectives for the three state pilot programs will be implemented on two levels:

—Continuation of distribution of educational materials for diabetes awareness and dieting/health guidelines;

—Retinal screening for diabetes mellitus in all three states.

—Assessment of progress and revision of materials and internal processes within each state will be conducted for refinement for each state's target population.

Joslin Diabetes Center would welcome additional participation within the three states of the pilot project to better educate consumers about diabetes and the most effective methods to address diabetes and its complications.

Mr. Chairman, this concludes my brief statement. We are submitting a detailed budget for the fiscal year 2002 funds of $926,000 to the Committee for continuation of this project with the Extension Service. If you or the Committee staff have any questions we may answer concerning this project, we would be pleased to meet and discuss the details in more detail.

The Extension Service and Joslin Diabetes Center appreciate your confidence in our capabilities and your focus on the improvement of quality of life in rural America. We respectfully request continued funding of $926,000 in fiscal year 2002 to fully demonstrate the benefits and potential national returns that can be derived from this pilot effort.

PREPARED STATEMENT OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Chairman Cochran and Members of the Subcommittee: The Metropolitan Water District of Southern California (MWD) appreciates the opportunity to submit testimony regarding the U.S. Department of Agriculture's (USDA) fiscal year 2002 budget, for the Hearing on Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations. MWD is a public agency created in 1928 to meet supplemental water demands of those people living in what is now portions of a six-county region of southern California. Today, the region served by MWD includes 17 million people living on the coastal plain between Ventura and the international boundary with Mexico. It is an area larger than the State of Connecticut and, if it were a separate nation, would rank in the top ten economies of the world.

Included in our region are more than 225 cities and unincorporated areas in the counties of Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura. We provide nearly 60 percent of the water used in our 5,200-square-mile service area. MWD's water supplies come from the Colorado River via the district's Colorado River Aqueduct and from northern California via the State Water Project's California Aqueduct.

INTRODUCTION

MWD continues to favor USDA implementation of conservation programs. MWD firmly believes that interagency coordination along with cooperative conservation programs, that are incentive-based and facilitate the development of partnerships are critical to addressing natural resources concerns, such as water quality degradation, wetlands loss and wildlife habitat destruction. It is vital that Congress provide USDA with the funding necessary to successfully carry out its commitment to natural resources conservation.

Our testimony focuses on USDA's conservation programs that are of major importance to MWD. In particular, MWD urges your full support for funding for USDA's Environmental Quality Incentives Program (EQIP). Funding for this program is essential for achieving Colorado River Basin salinity control objectives through the implementation of salinity control measures as part of EQIP. Sufficient Federal funding for USDA programs is necessary to achieve source water quality protection objectives in the Colorado River Basin.

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

EQIP provides cost-sharing and incentive payments, technical assistance and educational assistance to farmers and ranchers for the implementation of structural practices (e.g., animal waste management facilities, filterstrips) and land management practices (e.g., nutrient management, grazing management) that address the most serious threats to soil, water and related natural resources. EQIP is to be carried out in a manner that maximizes environmental benefits per dollar expended. This assistance has been focused in conservation priority areas identified by the Natural Resources Conservation Service's (NRCS) State Conservationists, in conjunction with state technical committees and Farm Service Agency personnel.

In Public Law 104–127, Congress amended the Colorado River Basin Salinity Control Act to direct the Secretary of Agriculture to carry out salinity control measures in the Colorado River Basin as part of EQIP. Beginning with the first full year of EQIP funding in 1997, USDA's participation in the Colorado River Salinity Control Program (Salinity Control Program) has significantly diminished. The mechanism by which funding had been allocated by USDA inherently masked projects for which benefits are interstate and international in nature. After requests had been made by the Colorado River Basin Salinity Control Forum (Forum), the interstate organization responsible for coordinating the Basin states' salinity control efforts, and others, and directives from the Congress, USDA has concluded that the Salinity Control Program warranted a multi-state river basin approach. The Forum is composed of Gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. Clearly, Colorado River salinity control has benefits that are not merely local or intrastate in nature, but continue downstream. Federal funding in an amount greater than $200 million through financing provided by the Commodity Credit Corporation is critical for implementation of EQlP in order to achieve nationwide EQIP objectives. This would allow acceptance and funding of additional EQIP proposals nationwide. USDA staff have indicated that a more adequately funded EQIP would result in the availability of more funding for the Salinity Control Program.

The Colorado River is a large component of Southern California's regional water supply and its relatively high salinity causes significant economic impacts on water customers in MWD's service area, as well as throughout the Lower Colorado River Basin (Lower Basin). MWD and the Bureau of Reclamation (Reclamation) completed a Salinity Management Study for Southern California in June 1999. The first phase of the study (completed in February 1997) updated the findings of previous studies and concluded that the high salinity from the Colorado River continues to cause significant impacts to residential, industrial and agricultural water users. Furthermore, high salinity adversely affects the region's progressive water recycling programs, and is contributing to an adverse salt buildup through infiltration into Southern California's irreplaceable groundwater basins. In April 1999, MWD's Board of Directors authorized implementation of a comprehensive Action Plan to carry out MWD's policy for management of salinity. The Action Plan focuses on reducing salinity concentrations in Southern California's water supplies through collaborative actions with pertinent agencies, recognizing that an effective solution requires a regional commitment. MWD, the Association of Groundwater Agencies, the Southern California Association of Publicly Owned Treatment Works, and the WateReuse Association of California have formed a Salinity Management Coalition which will be holding a Salinity Summit next month.

Reclamation estimates that water users in the Lower Basin are experiencing hundreds of millions of dollars in annual impacts from salinity levels in the river, and that impacts would progressively increase with continued agricultural and urban development upstream of California's points of diversion. Droughts will cause spikes in salinity levels that will be highly disruptive to Southern California water management and commerce. The Salinity Control Program has proven to be a very cost-effective approach to help mitigate the impacts of higher salinity. Adequate Federal funding of the Salinity Control Program is essential.

The Forum issued its 1999 Review, Water Quality Standards for Salinity, Colorado River System (1999 Review) in June 1999. The 1999 Review found that additional salinity control was necessary with normal water supply conditions beginning in 1994 to meet the numeric criteria in the water quality standards adopted by the seven Colorado River Basin states and approved by the U.S. Environmental Protection Agency (USEPA). For the last eight fiscal years (1994–2001), funding for USDA's salinity control program has not equaled the Forum-identified funding need for the portion of the program the Federal Government has the responsibility to implement. While NRCS has designated Colorado River Basin salinity control as an area of special interest and allocated about $4.5 million in fiscal year 2001, with

states and local cost-sharing adding about $3.5 million, it is essential that implementation of salinity control efforts through EQIP be accelerated to reduce economic impacts. The Basin states and farmers continue to stand ready to pay their share of the implementation costs of EQIP.

The Forum has determined that allocation of $12 million in EQIP funds in fiscal year 2002 is needed for on-farm measures to control Colorado River salinity. This level of funding is necessary to meet the salinity control activities' schedule to maintain the state adopted and USEPA approved water quality standards. With this level of Federal funding, an additional $9.3 million in states and local cost-sharing could be committed.

CONSERVATION TECHNICAL ASSISTANCE

MWD also supports adequate funding for Conservation Technical Assistance (CTA) within the NRCS Conservation Operations Program. Conservation technical assistance provides the foundation for implementation of EQIP and other conservation programs. While USDA has determined that 19 percent of the EQIP funds will be available for technical assistance, adequate funding for technical assistance and educational activities should be provided through the Conservation Operations Program, permitting these EQIP funds to be utilized for contracts with agricultural producers. USDA staff has indicated that the percentage of EQIP funds available for technical assistance is inadequate. Consequently, the Basin states have agreed that 40 percent of the states' cost sharing funds be utilized for technical assistance and educational activities. However, only through adequate Federal funding as well for technical assistance and educational activities can advance planning, proposal preparation assistance, comprehensive proposal review, and periodic verification of contract implementation occur.

CONCLUSION

MWD urges you and your Subcommittee to support funding of greater than $200 million for EQIP and adequate funding for NRCS CTA, and advise USDA that $12 million in EQIP funds be designated for the Salinity Control Program. Thank you for your consideration of our testimony. USDA's conservation programs are critical for achieving Colorado River Basin salinity control objectives, as well as broader source water quality protection objectives in the Colorado River Basin.

PREPARED STATEMENT OF THE MULTI-CROP AFLATOXIN WORKING GROUP

Mr. Chairman: This is to transmit the Multi-Crop Aflatoxin Working Group's request for fiscal year 2002 increased funding for aflatoxin research under the jurisdiction of the Subcommittee on Agriculture, Rural Development, and Related Agencies. The Multi-Crop Aflatoxin Working Group appreciates your assistance in making this part of the hearing records related to the fiscal year 2002 appropriations bill.

The Multi-Crop Aflatoxin Working Group, with representatives from corn, cotton, peanuts and tree nuts, was formed in 1989 to pursue the goal of eliminating or preventing the formation of aflatoxin in field crops and serves as a liaison committee to assist the USDA on aflatoxin research. Aflatoxin, a by-product of several naturally occurring fungi, is recognized internationally as a serious food safety hazard. It causes millions of dollars of crop losses to American agriculture each year. A new factor causing reduction in U.S. exports is that international food safety organizations have lowered acceptable aflatoxin levels in foods and feeds to near zero levels. Development of procedures to produce food free of aflatoxin requires a coordinated national effort by both government and industry. The elimination of aflatoxin would greatly improve the competitiveness of U.S. agricultural products.

Since the Multi-Crop Aflatoxin Working Group was formed it has strongly supported increasing the budget of the USDA Agricultural Research Service for aflatoxin research to help maintain this food safety research at an appropriate and productive level and worked with USDA to keep a focused and integrated aflatoxin research program. About $800,000 of the total USDA research budget for aflatoxin of about $9.1 million goes for these grants given on a competitive basis. A blue-ribbon panel of industry representatives assists in reviewing the projects that are funded and works with USDA to assure that they represent an integrated approach to the problem. Since the beginning of this program, over 200 important projects have been initiated. These include projects that address the major research objectives thought useful in reaching the goal of eliminating aflatoxin problems in the U.S. There are projects on (1) breeding and genetically engineered crop varieties with en-

hanced resistance to contamination, (2) development of bio-competitive agents to remove aflatoxin-producing fungi from crops, and (3) improving our understanding of the genetics and chemistry of how the fungi produce aflatoxin. These projects are being conducted through grants to ARS laboratories and state universities in about 20 states.

The combination of ARS projects, grants and the significant research efforts underway by U.S. producer and processor groups demonstrate the commitment of Congress, the Department of Agriculture, and the nation's food and fiber producers and processors to eliminate aflatoxin from the food supply, improve food safety, and increase the competitiveness of U.S. producers.

Much has been learned from the research conducted since 1990. But much more needs to be learned about managing and eliminating the serious aflatoxin problems. This is evidenced by the devastating occurrence of aflatoxin in crops in some of the south, mid-south and southwest in 1998 and 1999.

FUNDING REQUEST

For fiscal year 2002, the Multi-Crop Aflatoxin Working Group is requesting that the funds added by the Congress in the fiscal year 2001 appropriations that are proposed to be terminated be restored. The Working Group also requests that the USDA, ARS base budget for aflatoxin research in fiscal year 2002 be increased by $2.5 million for grants to translate our base of knowledge into practical systems to help farmers regain and increase export markets lost due to new more restrictive international standards. The funds are specifically earmarked for:

—research and development of the biology and ecology of Aspergillus flavus and the use of non-aflatoxin producing strains to prevent aflatoxin contamination;
—research and development to extend and commercialize this and other control technology in other affected crops; and
—research for the four affected crops that was outlined earlier.

Thank you for consideration of our recommendations. If there are questions please contact Sherri Lehman (Corn Refiners Assoc., 202–331–1634) or Phil Wakelyn (National Cotton Council, 202–745–7805).

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF FSA COUNTY OFFICE EMPLOYEES

Thank you for the opportunity to provide testimony concerning the agricultural appropriations for the Farm Service Agency. The Farm Service Agency (FSA) improves the economic stability of agriculture, rural America, and the environment through commodity programs; farm ownership, operating, and emergency loans; conservation programs; domestic and overseas food assistance programs; and disaster programs. These programs provide a safety net to help farmers produce an adequate food supply, maintain viable operations, compete for export sales of commodities in the world marketplace, and contribute to the year-round availability of low-cost, safe, and nutritious foods. FSA considers environmental impacts in the development and implementation of program operations to ensure adequate protection of natural, cultural, and historical resources.

Currently, FSA's programs are delivered in nearly 2,250 USDA Service Centers and 51 State Offices, including Puerto Rico. This network enables FSA to maintain close relationships with Agency customers and successfully address customer needs in an effort to continually improve the delivery of FSA programs. For the past seven years, FSA has been addressing historic shifts in the Federal Government's role in production agriculture. Rural communities and agriculture producers still rely heavily on the programs administered by the FSA field employees during periods of economic decline. Per the conferees report of the 2001 Ag Appropriations, ". . . the economic crisis and FSA workload are not expected to decline in the near future; the conferees expect that future funding requests by USDA to fully support the workload needs of the employees."

During the past four years Congress has recognized the need for additional salary and expenses for FSA, approving eight supplemental appropriations. In as much as FSA employees appreciate the supplemental process, they also recognize that the supplemental process is not a fundamentally sound method of budgeting for the agency. It has resulted in fluctuating staffing levels in the county office and inability to retain staff when critically needed. It causes turmoil with delayed payments and disrupted service to producers.

According to the "Government Performance and Results Act of 1993" FSA Administrator must prepare and submit an annual Performance Plan for the agency identifying staffing and funding necessary to carry out program goals. OMB utilizes this

plan for budget. NASCOE believes the 2001 Performance Plan, prepared by the previous administration, does not adequately address FSA county office employee FTE positions and funding. This is indicated in the referenced 1999 and 2000 staffing reports. This is also evident in the fact there has been a funded supplemental appropriation request for temporary employees for the Farm Service Agency in 1998, 1999, 2000, and 2001.

In Section 7 of the "Government Performance and Results Act of 1993 it is stated, "Nothing in this Act shall be construed as limiting the ability of the Congress to establish, amend, suspend, or revise an annul performance goal. Any such action shall have the effect of superseding that goal in the plan." NASCOE believes USDA must amend the performance goals of the previous administration for FSA to assure adequate PERMANENT staffing and fiinding for FSA county office employees. NASCOE stresses we can, and must, achieve a turn-around in the abuses and stresses affecting FSA county office employees.

The previous budget shortfalls illustrate the need for salary and expense finding to be commensurate with program delivery requirements. In 2001 and 2000, program outlays for Farm Service Agency salary and expenses accounted for only 2.8 percent of the total program level budget. When analyzing past historical budgets from the period of 1996 through 2001, as well as analyzing the workload system performed by the Farm Service Agency, a 4.5 percent program level for salary and expenses is supported. In other words, for every dollar of program funds appropriated by Congress, it is demonstrated that approximately 4½ cents needs to be appropriated for related salaries and operating expenses of the agency.

In order to retain the security and accountability of the farm programs, investments and improvements in the infrastructure is mandatory. Wherever possible, USDA has streamlined its administrative structure to ensure that maximum resources are devoted to programs. Agencies have been consolidated, offices closed, and staffing levels reduced. More than one-third of the county field offices that existed in 1994 have been closed, and Farm Service Agency CO staffing levels have declined by nearly 40 percent between 1993 and 2001. At this same time, Farm Service Agency has been expected to complete significantly more work. We have seen greater than 250 percent increase in program outlays, and the percent of farm program participation is at its highest level in USDA history. The Farm Service Agency performs an actual count of work completed in each field office, and can determine based on this workload the total number of employees needed. In 1999, the most recent year for which data is available, FSA report 14 indicates the total number of employees required to adequately staff the field FSA offices were 11,424.3 employees. The current staffing in county offices is 9160 permanent employees, taken from information provided by the Department. County offices are under-staffed by 2,284 employees, and this disparity currently continues for 2001. We need USDA to recognize this crisis and correct the disproportionate staffing of employees. It is important to realize that permanent staffing at the Field Office level has decreased by 5,793 employees since 1993. This is nearly a 40 percent cut in permanent CO staffing and indicates a cut of 2.5 employees per county office (there are approximately 2250 field offices nationwide).

A major workload component facing FSA in the 2001 fiscal year is implementation of the Agriculture Risk Protection Act (ARPA). In this bill FSA was assigned the task of providing compliance oversight on Crop Insurance. Per a report released by the crop insurance industry in January 2001, "Because FSA has an extensive field office structure and RMA does not, the act authorizes RMA to utilize FSA in its compliance efforts. Fraud and abuse are best addressed immediately in the area where it is suspected. FSA's presence in the local area should help RMA attain information regarding a suspect situation in a timely manner." In addition, in the same law, the Non-Insured Crop Disaster Assistance Program was dramatically changed to provide coverage to producers on a fee basis. Therefore the program will mirror crop insurance in many aspects and will require considerable staff time for County Offices. The time involved is unknown since this is new approach to a program FSA has delivered on a limited basis over the past 5 years. The Farm Service Agency indicates in their fiscal year 2000 and 2001 Annual Performance Plan that NAP is a very labor-intensive process and the NAP participation is expected to increase in the coming years. It is estimated these two new requirements will add staffing workload of 1 to 1½ persons per office depending on the size of the Counties. NASCOE is concerned that a projection for this increased workload be included in the budget request.

If USDA is to leverage the power of technology to deliver a range of services, its employees must be highly skilled. Unfortunately, USDA is facing an aging workforce, which has one of the highest retirement eligibility rates in the Federal Government. As FSA jobs become increasingly technical, skill gaps are emerging in key

areas, such as information technology. Adequate funds for program and computer training are essential. As current workers retire and new workers are hired, FSA must ensure that it maintains and builds a talented, flexible and diverse workforce.

USDA's budget request for 2002 increases FSA's salary and expense baseline by $120 million. This is the first time the Department has requested an increase in several years for FSA. The proposed budget reflects a net increase after inflation of approximately $70 million. NASCOE believes it is critical FSA considers allocating this increase to permanent staffing to take care of the increased workload generated by the current economic situation, the Agriculture Risk Protection Act, and the Freedom to E-File Act. Additional concern, as supported by recent GAO reports, is recognizing the crisis in human capital affecting USDA and the Farm Service Agency. With a majority of the workforce eligible to retire in the next six years, recruitment and adequate training of employees must occur. Considering a net cost per employee of $55,000, FSA could hire 1,273 permanent employees. Although the immense use of temporary employees by FSA has continued for the past three years, the skill and program expertise of these employees is minimal, and is no substitute for institutional knowledge. Due to past intermittent hiring and reductions of temporary employees, retention of these employees is often non-existent and leads to loss of real dollars in training of these employees only to have them exit the FSA workforce for more secure employment, and benefits.

It is imperative that Farm Service Agency future budgets allow for the hiring and recruitment of permanent employees. The current workload and historic trends in agricultural policy and rural economics support a need for increased permanent staffing in the short-term. Responsible planning and awareness of the crisis in human capital being faced by USDA and the Farm Service Agency support the need for permanent hiring for long-term stability. The ability to meet the needs of rural America and our nation's farmers and ranchers is dependent upon the recognition that infrastructure needs are becoming more pronounced, and must be addressed with adequate funding and effective leadership.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

The National Association of Conservation Districts is the nonprofit, nongovernment organization that represents the nation's 3,000 conservation districts and more than 16,000 men and women who serve on their governing boards. Established under state law, conservation districts are local units of state government charged with carrying out programs for the protection and management of natural resources at the local level. They work with nearly two-and-half million cooperating landowners and operators—many of them farmers and ranchers—to provide technical and other assistance to help them manage and protect nearly 70 percent of the private land in the contiguous United States. In carrying their mission to coordinate and carry out all levels of conservation programs, districts work closely with USDA's Natural Resources Conservation Service (NRCS) through its Conservation Technical Assistance (CTA) program to provide the technical and other help farmers and ranchers need to plan and apply complex conservation treatments.

On behalf of America's conservation districts, I am pleased to provide our recommendations on selected conservation programs carried out through the US Department of Agriculture, especially those of the Natural Resources Conservation Service. Our request includes an additional $60 million for the NRCS Conservation Technical Assistance account, and another $190 million for specific conservation needs if the available funds permit. We are requesting an additional $350 million for the Environmental Quality Incentives Program. We also request an additional $150 million for the Watershed Protection and Flood Prevention Program. And lastly, we request $60 million to provide NRCS technical and financial assistance to address watershed infrastructure issues, in concert with local sponsors, identified in the Small Watershed Rehabilitation Amendments of 2000.

Farmers and ranchers can and do provide more than just food and fiber. They protect and improve the quantity and quality of our soil resources. They provide clean water and air, as well as wildlife habitat and open space. Many of the conservation practices producers apply on their land also take carbon out of the atmosphere and store it in the soil, providing a hedge against global climate change. As stewards of the nation's working lands, farmers and ranchers manage the vast majority of America's private lands and provide tremendous environmental benefits to the country.

In 1985, Congress recognized the important role that farmers and ranchers play in environmental protection. It enacted the first Farm Bill conservation title, requiring producers to incorporate conservation into their operations if they wanted to

continue receiving USDA farm program benefits. The title also included an incentives program—the CRP—to give farmers financial incentives to protect sensitive lands. In subsequent Farm Bills, lawmakers added more incentives programs—WRP, EQIP, Farmland Protection Program, WHIP—to encourage good stewardship behavior.

The number and complexity of Federal conservation programs has grown considerably over the past one-and-a-half decades, but the Federal component of the infrastructure needed to implement them hasn't. In fact, it has gone down. In the meantime, the workload continues to grow.

Two years ago, NACD and several of its partners collected extensive data on the challenges facing private lands conservation through its National Field Workload Analysis (WLA). The purpose of that analysis was to examine the staff years of technical support needed at the field level to carry out 29 core work elements each year. Some of these core work elements encompass Farm Bill program objectives, but many do not.

The national data collected through the WLA painted a stunning picture of the workload needs across the countryside. To effectively address the total resource needs on America's private lands would require 359,734 staff years of technical assistance from all sources. If stretched over a 10-year period, this would equate to 35,974 staff years per year, at a cost of nearly $2.4 billion per year for technical assistance alone. We are just now completing a 2001 WLA and early indications are that the need has not gone down but has increased by 15 percent.

Earlier this month, the Senate Budget Committee indicated recognition of the shortfall in funding and staffing needed to address agriculture's environmental needs by adding $1.65 billion to USDA's budget for conservation in fiscal year 1902. America's conservation districts applaud this action and, if realized, urge you to provide a substantial increase in NRCS's CTA and other important conservation programs as part of that package. Our specific recommendations for how additional funds should be appropriated follow.

DISCRETIONARY PROGRAMS

It is critical that the basic CTA account at least remains intact at its current level to address as many of the nation's resource conservation needs as possible. In order to cover inflation, increased pay costs and the loss of reimbursements from mandatory programs like the Conservation Reserve Program (CRP), we estimate that it will take an additional $60 million in fiscal year 1902 to keep NRCS field staff at its current level and not lose ground. This is the basis for our CTA request.

Our request is consistent with the President's budget request, which proposes an overall $59 million boost in CTA funding for fiscal year 1902. While we welcome and applaud this requested increase, we are concerned that his budget directs up to $44 million in the CTA program to pay for any technical assistance costs associated with enrolling 2.24 million acres into the CRP in 2002, as is optimistically projected in the President's budget request. We strongly urge Congress to ensure that conservation programs such as the CRP that are funded by the mandatory spending of the Commodity Credit Corporation pay their own technical assistance costs from mandatory funds.

The bottom line is that whether CRP enrollments in 2002 are 2.24 million acres or less, the CRP should pay for its own technical assistance costs, and that CTA should be funded at a level necessary to maintain current field staffing levels.

When considering funding for NRCS fiscal year 1902, it is important to keep in mind that CTA is a program, and it was not created by Congress to serve as a salary and expense account to support a limited number of Federal tools. It was intended as a program in and of itself the purpose of which was to help the nation's farmers and ranchers and other landowners address their resource conservation needs by providing technical support at the local level, including non-HEL lands that are nonetheless eroding at unacceptable levels. It is critical that the basic CTA account at least remains intact at its current level to address this and myriad other resource needs.

Waste from animal feeding operations (AFOs) has become a significant issue over the past several years. USDA's most recent estimate indicates that more than roughly 275,000 comprehensive nutrient management plans will be needed over the next several years to control runoff from AFOs. The President's proposal would redirect $70 million of CTA to begin to address those AFO plans. Conservation districts strongly support providing resources to help farmers and ranchers address AFO problems, but re-directing an already seriously oversubscribed CTA account for this purpose would be a mistake. If we seriously want to address AFO issues, Con-

gress needs to provide an additional $70 million for technical assistance in fiscal year 2002 to do so.

Another important national priority is the growing problem in many areas of the deteriorating condition of our nation's grazing and pasturelands. Resource problems such as brush, weeds and accelerated water or wind erosion threaten the capacity of nearly 300 million acres—more than 50 percent—of these lands to satisfy production needs and meet natural resource values. Working with partners such as the National Grazing Lands Conservation Initiative, conservation districts and their partners have determined that at least $60 million is needed to fund the Farm Bill's Conservation of Private Grazing Land (CPGL) Program to begin reversing the negative trends that affect both production and environmental concerns on these lands. Conservation districts urge Congress to appropriate $60 million to begin funding the CPGL in fiscal year 2002.

Since 1985 significant advances have been made in reducing soil erosion and increasing productivity. Much of the gain in controlling soil erosion is a result of conservation compliance, the adoption of conservation tillage and the enrollment of land in the CRP. Since 1996, however, rates of erosion reduction have leveled off, as there were fewer incentives to reduce erosion on non-highly erodible land that is nonetheless eroding at unacceptable levels: There is still excessive soil erosion on 112 million acres of cropland, with a total of 1.3 billion tons eroding per year. Leaching and runoff of soil and chemical components continue to be concerns. Conservation districts support appropriating an additional $60 million to address erosion control on non-HEL in fiscal year 2002.

Through its Watershed Protection and Flood Prevention Program NRCS and local sponsors address numerous water-related and other natural resource issues, conduct studies, develop watershed plans and implement resource management systems. Projects are carried out primarily under the authority of Public Law 83–566 and Public Law 78–534. More than 500 active watershed projects primarily target land treatment measures for water supply management and flood prevention. The most recent program evaluation by NRCS showed a 2.2:1 benefits to cost ratio for this program. Conservation districts support funding the Watershed Protection and Flood Prevention program at $250 million to complete ongoing projects and to address the backlog of project requests.

A related priority facing private lands conservation is the rehabilitation needs of the nation's aging watershed infrastructure—many of them built under the authority of the above programs. NRCS estimates that approximately 2,200 watershed structures, including dams, are in immediate need of rehabilitation and that more than 650 of these dams pose potential threats to public health and safety. Unless these issues are addressed, the magnitude of the problems will only increase as the infrastructure continues to age.

The Small Watershed Rehabilitation Amendments (SWRA) of 2000, enacted last year, authorizes $90 million over the next five years to provide NRCS technical and financial assistance to address these watershed infrastructure issues in concert with local sponsors. Project sponsors in the 500 active watersheds need technical and financial assistance to implement rehabilitation plans to meet current environmental, economic and safety needs. Conservation districts urge you to begin addressing these needs through that statute by appropriating $60 million for watershed infrastructure rehabilitation projects in fiscal year 1902. Resource Conservation and Development Councils play an important role in rural development and natural resource conservation. USDA has indicated that it takes $161,000 to fully support an RC&D council. There are 348 existing councils and 27 pending applications. Conservation districts recommend that Congress appropriate $60 million to fully support all existing councils and additional applicant areas.

MANDATORY PROGRAMS

The Environmental Quality Incentives Program (EQIP) is an ideal vehicle through which to address livestock water quality and other resource issues. However, this program, too, is tremendously oversubscribed and unavailable to fund three out of four producers who would otherwise qualify. And, many of those turned away are livestock producers not currently subject to NPDES regulation. The Senate's resolution acknowledges EQIP's potential and its lack of adequate funding by adding an additional $350 million annually for assistance through the program. Conservation districts support funding EQIP at $550 million in fiscal year 2002.

If additional funds become available, the nation's conservation districts also support expanding and funding the Conservation Reserve Program, the Wetlands Reserve Program, the Wildlife Habitat Incentives Program and the Farmland Protection Program in fiscal year 2002.

As you continue your work on providing funding for critical NRCS programs, we again urge you to keep in mind that NRCS is the only Federal agency whose primary role is to provide conservation assistance on the nation's private lands. There are a few other agencies with narrowly targeted purposes, but no other agency even comes close to touching 70 percent of America's private lands as do NRCS and conservation districts. It is critical, therefore, that we strengthen the nation's commitment to providing adequate resources to help these land managers conserve and protect natural resources on America's private lands.

On behalf of the nation's 3,000 conservation districts, we appreciate the opportunity to provide our views on fiscal year 2002 funding recommendations for select USDA conservation programs. We look forward to working with you over the next few months in finalizing your proposals.

Fiscal Year 2002 Recommended Appropriations for NRCS Conservation Programs

April 2001

Figures Represent Millions of Dollars	FY 2001 Admin.	FY 2001 NACD	FY 2001 Estimate	FY 2002 Admin	FY 2002 NACD
US Department of Agriculture					
Natural Resources Conservation Service					
II. Discretionary Spending					
Conservation Operations (CO)					
Technical Assistance	653.805	840.000	619.000	678.000	809.000
Grazing Lands	0.000	60.000	(18.000)[1]	(18.000)	60.000
Soil Surveys	78.323	82.000	78.000	80.000	82.00
Snow Surveys/ Water Forecasting	5.990	6.250	6.000	6.000	6.250
Plant Materials Centers	9.125	9.300	9.000	9.000	9.300
CO Total	747.243	997.550	712.000	773.000	966.550
Watershed Protection & Flood Prevention	83.423	250.000	209.443	100.000	250.000
Watershed Structure Rehabilitation		60.000	0.000	0.000	60.000
Watershed Surveys & Planning	10.368	20.000	10.868	11.000	20.000
RC&D	36.265	53.000	42.015	43.000	60.000
FIP	0.000	25.000	6.325	0.000	25.000
Transfer of RAMP funds from Interior	0.000	25.000	0.000	0.000	25.000
Total Appropriation	877.299	1435.550	982.767	927.000	1406.550
Mandatory Programs					
EQIP	325.000	325.000	200.000[2]	174.000	550.000
Agricultural Management Assistance	0.000	0.000	6.000	0.000	0.000
WRP[3]	286.142	286.000	162.000	0.000	250.000
WHIP	50.000	50.000	12.000[4]	0.000	50.000
FPP	65.000	65.000	18.000	0.000	65.000
CFO	0.000	0.000	0.000	0.000	0.000
Total CCC Funding	726.142	726.000	413.569	174.000	915.000
Conservation Reserve Program			63.000[5]	0.000	44.000[6]
Total NRCS	1603.441	2161.550	1459.336	1101.000	2321.550

[1] NRCS earmarked $18 million of CTA for the Grazing Lands Conservation Initiative in '01 and intends to do the same in '02. NACD supports a separate Grazing Lands line item.
[2] Reflects an additional $26 million for EQIP included in the FY2001 Labor-HHS omnibus spending package.
[3] NACD policy supports annual enrollment of 250,000 acres in the WRP.
[4] Reflects $40 million in cost-share funding authorized in the Agricultural Risk Protection Act (ARPA), passed in the spring of 2000. USDA designated $20 million for WHIP and $20 million for the Farmland Protection Program (FPP). The ARPA also included a separate authorization for FPP at $10 million.
[5] Technical assistance funding provided for CRP and WRP in two '01 emergency spending measures.
[6] Technical assistance funds needed to enroll 2.24 million acres in the CRP in '02.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF PROFESSIONAL FORESTRY SCHOOLS AND COLLEGES

The National Association of Professional Forestry Schools and Colleges (NAPFSC) is comprised of the 67 universities that conduct the Nation's research, teaching, and extension programs in forestry and related areas of environmental and natural re-

source management. NAPFSC strongly supports increased funding for Federal forestry research programs, including those operated by the USDA's Cooperative State Research Education and Extension Service (CSREES).

The management of nonfederal forestlands has become a critical economic and environmental issue. Owners and managers of nonfederal forestlands are simply not equipped to deal with the tremendous changes in forest land use and management that have occurred in the last decade nor the pressures of the 21st century. The programs outlined below are key to addressing the stewardship of these lands. These programs are: the McIntire-Stennis Cooperative Forestry Research Program (McIntire-Stennis), the Renewable Resources Extension Act (RREA), the National Research Initiative (NRI), and the Initiative for Future Agriculture and Food Systems (IFAFS). The first three of these programs have stimulated the development of vital partnerships involving universities, Federal agencies, non-governmental organizations and private industry, and the newest program—IFAFS—a competitive grants program, offers great potential for developing new uses for forest products, improving natural resource management, and building multi-state and multi-university partnerships for research and outreach activities.

	Fiscal Year 2000 Enacted	Fiscal Year 2001 Enacted	Fiscal Year 2002 Bush Budget	Fiscal Year 2002 NAPFSC Recommendation
McIntire-Stennis	$21,932,000	$21,932,000	$21,884,000	$30,000,000
RREA	3,192,000	3,192,000	3,185,000	15,000,000
NRI	119,300,000	106,000,000	105,767,000	150,000,000
IFAFS	120,000,000	113,400,000	120,000,000	120,000,000

THE CASE FOR ENHANCED FORESTRY RESEARCH FUNDING

The past, present, and future success of forestry research and extension activities arising from the NAPFSC member institutions results from a unique partnership involving Federal, State, and private cooperators. Federal agencies have concentrated on large-scale national issues while state funding has emphasized applied problems and state-specific opportunities. University research in contrast, with the assistance of Federal, State and private support, has been able to address a broad array of applied problems related to technology development and fundamental biophysical and socioeconomic issues and problems that cross ownership, state, region, and national boundaries.

The 1998 Farm Bill and various subsequent reports and conference proceedings have identified the need for greater attention on the emerging issues confronting non-Federal forest landowners. NAPFSC is pleased to be one of the cofounders of the National Coalition for Sustaining America's Nonfederal Forests. The founding of the Coalition and its subsequent report emerged from a Forestry Summit held in 1999 that brought together key forestry leaders and landowners from across the nation. The outcome of the Summit confirmed the need for increases in forestry research funding focused on non-Federal lands and for an increase in collaborative efforts between university-based research and the Federal agencies.

The forests and other renewable natural resources of this country are primary contributors to the economic health of the nation; are reservoirs of biodiversity important to the well-being of our citizens; are significant to the maintenance of environmental quality of our atmosphere, water, and soil resources and provide diverse recreational and spiritual renewal opportunities for a growing population. Tremendous strains are being placed upon the nation's private forest lands by the combination of increasing demands for forest products coupled with dramatic changes in timber policies concerning our National Forests. Because of the changes in Federal forest policy, private forest lands in the United States are now being harvested at rates not seen since the beginning of the 20th century.

For example, in the East, NIPFs are projected to increase their timber harvests almost 30 percent from the 1986 levels until 2010. Hardwood timber harvests on NIPF lands in the South are actually projected to increase more than 60 percent from 1986 to 2010. These spectacular increases will require larger investments and enhanced public educational programs—and hopefully much more regeneration and intensive timber management—at a scale never before realized on NIPF lands in the U.S.

To meet this challenge, research priorities must be adjusted to better address the needs of private landowners, and to specifically enhance the productivity of such lands through economically efficient and environmentally sound means. These chal-

lenges can be substantially addressed by the university community through the building of integrated research and extension programs assisted by McIntire-Stennis, RREA, and NRI.

There are currently approximately 10 million private forestland owners in the U.S. These landowners control nearly 60 percent of all forestland in the country. And it has been to the universities, with strong support from CSREES, that landowners traditionally look for new information about managing their lands. The overwhelming majority of the 10 million private landowners are not currently equipped to practice the sustained forest management that is critical to the health of our environment and economy. The combination of research conducted by the forestry schools, combined with the dissemination of that research through the cooperative extension network, has never been more essential.

MCINTIRE-STENNIS COOPERATIVE FORESTRY RESEARCH

The Cooperative Forestry Research Program (McIntire-Stennis Act), is the lead forestry effort administered by the USDA Cooperative State Research, Education, and Extension Service (CSREES). This program is the foundation of forestry research and scientist training efforts at universities. Funding this program provides for cutting-edge research on productivity, technologies for monitoring and extending the resource base, and environmental quality. The program is critically important today since universities provide a large share of the nation's research. Additionally, universities train nearly all of the nation's scientists in forestry. The main categories of need are:

—Significantly enhance sustainability and productivity of nonfederal forests;
—Increase the financial contributions of nonfederal forests to benefit landowners, the rural community, state and national economies, and environmental values; and
—Conserve and sustain the nonfederal forests and other natural resources for future generations.

The Cooperative Forestry Research Program is currently funded at $21.932 million and matched more than three times by universities with state and nonfederal funds. The program is currently funded at little more than one-fifth its authorized level. We recommended funding McIntire-Stennis at a level of $30,000,000 for fiscal year 2002. The requested additional funding would be targeted at:

—sustainable and productive forest management on private lands to address issues of competitiveness and economic growth ($3.0 million);
—forest inventory, monitoring, and assessment with emphasis on new technologies ($2.1 million);
—new products, improved processing technologies, and utilization of small trees to extend the forest resource and improve environmental quality ($1.1 million); and
—assessing social values and tradeoffs to facilitate the understanding of policy options, economic impacts, and informed decisions at all levels of government ($1.9 million).

The NAPFSC schools further recommend that CSREES provide this support to universities with direction to focus on new or existing approved projects for the explicit purpose of near term progress in addressing one or more of these research targets in each school's state or region. It is recognized that progress will be dependent on a critical mass of scientific effort, and collaboration among schools is thus encouraged. Additionally stakeholder advisory mechanisms should be a part of the funding allocation process. In the process of funding these projects, NAPFSC would also recommend that portions of this funding be used to build research capacity, including a provision calling for training of much needed new forestry scientists.

RENEWABLE RESOURCES EXTENSION ACT

The Renewable Resources Extension Act (RREA) is the lead forestry extension effort administered by the USDA Cooperative State Research, Education, and Extension Service (CSREES). This program is the foundation of outreach and extension efforts at universities. Funding for this program addresses critical forestry and related natural resources extension and stewardship needs in states, and would address the critical issues of forest management for productivity and environmental quality on non-Federal lands brought about by diminished harvest levels on Federal lands.

Audiences for the products of outreach and extension are as diverse as are the stakeholders. Of highest priority are the owners of nonfederal forestlands and those involved in implementing forest management. These groups would be best served by outreach programs that (1) solve immediate problems; (2) transfer research tech-

nologies and new knowledge; and (3) increase their awareness of the benefits of active management.

It is vital that Congress increase funding for this important program for distributing the knowledge gained through our research institutions to the private landowners. NAPFSC recommends funding RREA at a level of $15 million for fiscal year 2002. This increase would take RREA to its full authorization level.

With nearly ten million nonfederal forest landowners, the most compelling priority areas for extension and outreach are:

—Develop databases of landowner information to customize educational efforts and their delivery to address owner values and goals ($2.5 million);

—Increase landowner awareness through new communication technologies, volunteer leadership, and localized programming ($2.5 million);

—Identify management alternatives with readily accessible new information on programs, services, and benefits of management and planning to integrate water, fish, wildlife, timber and other products and services ($3.0 million);

—Address local issues and needs within the framework of landowner's objectives using special forums, experts, and case study approaches to sustainable forestry ($2.0 million); and

—Identify and follow up on organizational opportunities including the establishment of landowner organizations linked to professional services, price reporting systems, and cooperative marketing ($1.8 million).

The NAPFSC schools further recommend that CSREES provide this support to universities with direction to focus on new or existing approved projects for the explicit purpose of near term progress in addressing one or more of these outreach/extension targets in each school's state, region, or nationally. It is recognized that progress will be dependent on a critical mass of extension educator effort, and cooperation among schools is thus encouraged. Additionally stakeholder advisory mechanisms should be a part of the funding allocation process. In the process of funding these projects, NAPFSC would also recommend that portions of this funding be used to build outreach/extension capacity, including a provision calling for training of much needed new extension educators and associated technical support staff.

NATIONAL RESEARCH INITIATIVE COMPETITIVE GRANTS

The National Research Initiative Competitive Grants program (NRICGP) is a significant source of funding for basic cutting-edge and applied research in categories important to sustainable forest management. Among these categories are (1) natural resources and the environment, (2) plants, (3) markets, trade and rural development, and (4) processing for value added/new products. This program is administered by the USDA Cooperative State Research, Education, and Extension Service (CSREES).

This program is currently funded at $106 million of which approximately ten percent goes to successful forestry research proposals. Building to address the full set of research needs of nonfederal forests will take several years and steps as described in the Coalition's planning document. However, we urge a significant step in the first part of this new century. NAPFSC recommends this program be funded at $150 million for fiscal year 2002 with at least $20 million directed to forestry and forest products research priorities in categories (1)–(4) above under existing and/or new research opportunity areas. We further urge the targeting of funding of research on the most compelling needs.

INITIATIVE FOR FUTURE AGRICULTURE AND FOOD SYSTEMS

The Initiative for future Agriculture and Food Systems (IFAFS) is a new research, extension, and education competitive grants program designed to address a number of critical emerging issues in the broad area of agricultural. These issues encompass future food production, food safety, environmental quality, natural resource management, and farm income. Priority program areas include (1) the agriculture genome; (2) new and alternative uses and production of commodities and products; (3) biotechnology; and (4) and natural resource management, including precision agriculture. Priority for funding is for those proposals that were multi-state, multi-institutional, or multi-disciplinary, or that integrated research, extension, and/or education. This program, administered by CSREES, was funded at $113.4 million in fiscal year 2001. NAPFSC strongly supports this new competitive grants program and urges your Subcommittee to provide the full $120 million for fiscal year 2002.

CONCLUSION

The needed investment for these programs is substantial, but the potential returns are enormous and crucial to our society's future. Disciplined and rigorous im-

plementation of research on forestry issues will contribute greatly to attaining our vision for America's nonfederal forests for the future. NAPFSC urges cooperation at Federal, State, and University's levels to make this research and the vision it will support a reality.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

Mr. Chairman, I would like to extend my thanks to you and the Committee for the opportunity to submit testimony regarding funding for USDA's Cooperative State Research, Education and Extension Service in fiscal year 2002. I am Gale Buchanan, Dean of the College of Agricultural and Environmental Sciences at the University of Georgia. I serve as Chair of the Board on Agriculture Budget Committee of the National Association of State Universities and Land Grant Colleges (NASULGC). Founded in 1887, NASULGC is the nation's oldest higher education association. A voluntary association of public universities, land-grant institutions and many of the nation's public university systems, NASULGC campuses are located in all 50 states, the U.S. territories and the District of Columbia. As of October 2000, the association's membership stood at 212 institutions. This includes 75 land-grant universities (of which 18 are the historically black public institutions created by the Second Morrill Act of 1890) and 28 public higher education systems. In addition, tribal colleges became land-grant institutions in 1994 and 30 are represented in NASULGC through the membership of the American Indian Higher Education Consortium (AIHEC).

THE BOTTOM-LINE

The Land Grant Colleges and State Universities support doubling the investment in agricultural research, extension and teaching over the next five years. To accomplish this goal,

We recommend increasing funding for USDA/CSREES by $200 million in fiscal year 2002.

We recommend that these increases be accomplished through a balanced portfolio of investments, which are listed in the attached table. We recommend that these increases be targeted to investments in five priority areas: An Educated Workforce, Dependable Food Supply, Revitalizing Communities, Environmental Balance, and Capacity Building. The Capacity Building category allows for critically needed investments in our minority-serving institutions, which will enable them to more effectively address the other priority areas and the unique needs of the communities that they serve.

INVEST IN AN EDUCATED WORKFORCE

The entire traditional education system is due for an overhaul and expansion. It must be transformed through technology, electronic-based learning and globalization of the curriculum. And there's no time to spare. In a very few years, today's students will run a food and agricultural system with assets exceeding a trillion dollars. Almost 20 percent of the workforce in this country is involved in the production, processing, packing and distribution of nutritious and safe food and fiber. All the new technology and knowledge in the world are useless without the well-trained mind of someone to learn from it, apply it and expand it. Yet undergraduate and graduate education in colleges of agriculture and life sciences is largely neglected in Federal funding. More investment is needed to make the higher education system a more global one through electronic-based learning. We need to equip our college students, especially minorities, with skills and opportunities to become leaders in our nation's workforce. And we need to ensure that the state and land-grant university system continues to provide unbiased information, continuing education and workforce preparation to help people prosper in today's ever-changing world. Our state and land-grant institutions educate future scientists and employees who serve one of the largest sectors of the American economy. Their future is key to our nation's future.

We are proposing that an investment of $19.7 million be targeted towards workforce education.—The specific funding mechanisms that we think can best address this issue are listed in the Table. We recommend increased funding for Graduate Fellowship Grants, Institution Challenge Grants, Multicultural Scholars, and Secondary/2-year Post Secondary grants. As part of this mix of funding mechanisms, we propose that $3 million be identified for workforce preparation within the integrated Sec. 406 accounts. This new program would integrate research, teaching, and

extension elements into workforce preparation, fostering innovation in our agricultural teaching and extension outreach programs.

INVEST IN A DEPENDABLE FOOD SUPPLY

As agricultural markets rapidly move into the world arena, American farmers go head to head with farmers from other countries who rely on high government supports, work under less stringent environmental protection rules and safety standards, or pay far less for labor and other expenses. Yet American farmers must compete internationally to stay in business. Their best hope is science, conducted through state and land-grant universities. New biotechnology tools and the science of genomics will open new horizons and challenges for food production, processing and international trade. Advancements in health and agricultural sciences will help us better understand the interactions between diet and health. It can learn how foods may contribute to allergies or stave off chronic diseases. It can fight insects, weeds and diseases in the field; create new crops and economic opportunities; develop new foods and processing techniques, and keep pathogens and other dangers out of the food supply.

When it comes to food, everyone—consumers, growers, processors and authorities—all demand safety, and for good reason. The Centers for Disease Control and Prevention says 76 million illnesses can be attributed in this country to food-borne diseases. Economic losses attributed to meat and poultry risks alone may top $28 billion annually. Many of the causes of greatest concern were not even recognized 20 years ago. Recent news about "Mad Cow" and "hoof-and-mouth" diseases are immediate examples of the need to invest in assessment and treatment research, as well as producer training and public education programs. Biotechnology, genomics and other yet-undiscovered sciences must undergo rigorous reviews to keep a close eye on these promising advancements. They may offer the key to developing foods to combat diseases and chronic health problems, and improving nutrition.

To address the production needs of farmers and ranchers and the safety and health concerns of consumers, we request a total budget increase in this category of $35.404 million.—The mix of funding mechanisms that can best target these issues are shown in the Table. We have proposed increasing Hatch research funds by $7.587 million, to be targeted to these issues. We've targeted all of our proposed increases in Animal Health to these issues. We urge enhancing the Expanded Food and Nutrition Education Program (EFNEP). We recommend a doubling of the Ag in the Classroom program. We recommend creating two new categories in Sec. 406. We recommend creating an category addressing biobased products, both to develop alternative renewable energy sources and to develop new and value added products. We recommend a second category to address biotechnology and health issues, which should be targeted towards addressing research and education efforts to address public concerns regarding emerging new technologies, such as genetically modified organisms. We also recommend funding a Small Farms Initiative to meet the special challenges facing smaller producers.

INVEST TO RENEW COMMUNITIES

Community leadership, sound public policy, portfolio diversity for the tax base, well-managed and envisioned community services, active public involvement, strong schools and medical facilities, a healthy population: these are the characteristics of a healthy, growing community. Both rural and urban communities will face special challenges in the next decade. Local communities will be required to make complex decisions about health care, education, telecommunications, economic development, and the delivery of social services. The land-grant system is the only dependable source of information for many struggling communities. It can arm them with the necessary tools to succeed. Researchers and educators can help them develop participatory citizens, involve youth through 4–H in life-long learning, promote economic vitality, and strengthen the agricultural and agribusiness sector. They can tackle community health issues, enhance private forestland production while sustaining environmental quality and train potential community leaders. The Extension Service educates community leaders, coordinates projects across states and regions to help communities learn from each other, and develops local solutions to local challenges. The land-grant system can help bridge the widening gap in acquiring and applying technology in communities in danger of being left behind in the technology revolution.

We request a total budget increase of $30.646 million to help our communities.—All of the proposed increase of $23.178 million for Extension formula funds (Smith-Lever) is targeted to developing community opportunities. We recommend strengthening the Extension investment in our Rural Development Centers and we rec-

ommend reestablishing the research component of these Centers. We recommend increased funding for our Children, Youth and Families at Risk programs. We also propose developing a new designation within the Sec. 406 account to be targeted to rural economic development.

INVEST IN ENVIRONMENTAL BALANCE

Production of food and fiber also means conserving scarce natural resources, private forests and open spaces. Research, extension and education efforts at state universities and land-grant colleges are providing farmers and ranchers with the tools and technologies that they must have to conserve their natural resource base and protect the environment, while staying economically healthy and competitive. Our programs provide science-based management alternatives that help prevent the need for regulatory solutions. Environmental research at schools of agriculture is playing a part in devising new technologies to reduce or reuse animal wastes and crop byproducts. Novel studies in animal diets, air quality and animal production systems will help keep agricultural odors away from the non-farmers. The use of global positioning system precision farming sensors can reduce runoff of farm chemicals and land-applied animal waste. Scientists are looking at crops that could trap carbon to slow climate change. Complex biochemistry could change plant oils into petroleum-like materials. With increased investment, scientists can increase their discoveries of new ways to control pests naturally, maintain biodiversity, and tackle environmental problems

Research and education efforts at the land-grant universities created Integrated Pest Management (IPM), a well-known system that melds management and technology to reduce the use of expensive and potentially harmful pesticides in and around farms, businesses and public buildings. The next generation of integration, called Environmental Management Systems looks at the entire system of agricultural production and how strategies and methods can improve conditions for farm workers, children, consumers, wildlife and the environment as a whole.

We recommend increased funding of $46.404 million to address natural resource and environmental issues.—We propose an increase of $7.587 million in research formula funds (Hatch) to be targeted to helping farmers and ranchers address environmental issues. All of our proposed increase in forestry research (McIntire-Stennis) is targeted to addressing these issues. We propose a mix of additional funding mechanisms, as shown in the table, ranging from Integrated Pest Management through Water Quality and Pesticide Applicator Training. We propose substantial increases in the Renewable Resources Extension Act. We recommend establishing a new, integrated program to manage animal waste through Sec. 406.

CAPACITY BUILDING

Land-grant colleges serving minority communities, including the 1890s and Tribal Colleges, have historically struggled with inadequate funding resources to meet the especially challenging needs of under-served communities. Their challenge is twofold. Limited resources have taken their toll on the quality of facilities that enable these institutions to effectively compete for other funding sources. In turn, they slip behind in their ability to connect university research, teaching, and extension services with the minority communities that so vitally need their services. Capacity building at these institutions is the foundation for not only providing better research and teaching facilities, but also leveraging additional dollars for community based programs working in some of our nation's poorest communities. Land-grant institutions serving minority communities have dramatically increased the economic viability of small and limited resource farmers. In spite of years of neglect and under funding, the 1890s have been able to make contributions of high quality and relevance to the agricultural sciences and their stakeholders; their continued success and future growth (and that of the 1994s) depends on solid investments in capacity building programs.

NASULGC proposes a budget increase of $35.846 million to build capacity at minority serving institutions.—The Capacity Building portfolio provides for facilities rehabilitation, research grants, teaching programs, minority recruitment, and extension activities. The mix of mechanisms we recommend for investment is provided in the Table. These funding lines target the specific needs of our historically black 1890 institutions, the Tribal Colleges and Hispanic Serving Institutions. Included in this mix is our proposed increase of $3.521 million for 1890 research formula funds (Evans-Allen) and $4.757 million for 1890 extension formula funds.

CROSS CUTTING FUNDING

The proposed increases in capacity building for minority serving intuitions will enable them to more effectively address the priority issue areas addressed previously. In addition, there are two funding mechanisms that can be used to effectively address each of these priority issues: the NRI and the International Sc9ience and Education Grant Program. We strongly recommend restoring the National Research Initiative and increasing its funding to a minimum level of $130 million. We recommend that the earmarking of funds to address food safety concerns be lifted, or far better, that the funding targeted to food safety be added to the total amount of funding available through the NRI. We also recommend establishing the International Science and Education Grant Program at $8 million. This program was established as Sec. 1458 in the 1998 Agricultural Research, Extension and Education Reform Act. This program is designed to internationalize the curriculum of our agricultural courses and to better prepare students and faculty to compete and prosper in today's increasingly global industries and markets. This program address each of the priority areas addressed previously, but from an international perspective.

Why should food and agricultural science and education receive new funding in the 2002 USDA/CSREES budget?

The decades of investment in both base programming and competitive grant funding for state and land-grant institutions have revolutionized agricultural production, ensuring a safe, affordable food supply. But agriculture does not live on bread alone. It takes a strong network of agribusinesses to supply equipment and other inputs, process agricultural products and connect the producer to the market. It takes communities with trained and visionary leaders who can anticipate development. It takes respect and understanding for the environment, and the ramifications of agricultural production within that realm. And it takes the education of students of all ages-whether through 4–H for youngsters, degree work in the agricultural and life sciences or continuing education for producers and consumers alike.

What are the new investments needed now?

Tomorrow's science comes with a high price tag as scientists delve into biotechnology, genetics, satellite imagery and many other highly technical fields. Tomorrow's scientists must be educated today, even as the fields of science advance each day. A balanced portfolio of funding mechanisms must be used to address these critical issue areas, drawing on base funding to sustain programs and competitive grants to target specific projects.

What scientific progress has resulted from this work?

Integrated pest management to cut production costs and protect the environment, constant vigilance in testing for and detecting food safety problems, genetic improvements among livestock species to breed leaner animals for healthier products, advances in crop breeding through biotechnology that assures more affordable food throughout the world, variety testing and field work to take the guesswork out of farming . . . the list is endless. And beyond production agriculture, the community development work and educational advances happen every day in communities and classrooms throughout the country. The state and land-grant institutions stretch out their research, extension and education arms with one mission in mind: to support the nation's prosperity and our quality of life.

Will progress continue?

Even with a generous infusion of funds to support food and agricultural sciences and education, it's only a beginning. New scientific investigation can build production efficiency and profitability through biotechnology without harming the environment, attract minority and other students into the exciting fields of science and design marketing strategies and economic alternatives for struggling communities. But one year's work can only be the beginning. The science and education community in the food and agricultural sciences welcomes this challenge and responsibility. The future belongs to those with the vision to see it.

NASULGC Board on Agriculture Budget Committee

Recommended Increases for USDA/CSREES in FY 2002

	Funding Lines (amounts in $000)	$ Change over FY 2001
Invest in an Educated Workforce		
T	Graduate Fellowships Grants	$5.500
T	Institution Challenge Grants	$6.000
T	Multicultural Scholars	$4.000
T	Secondary/ 2-year Post Secondary	$1.200
I	* *Workforce preparation*	$3.000
	Workforce Subtotal	**19.700**
Invest in a Dependable Food Supply		
R	Hatch Act**	$7.587
R	Animal Health	$421
R	Grazing Lands	$2.000
E	Expanded Food and Nutrition Education Program	$2.348
T	Ag in the Classroom (AITC)	$548
I	* *Biobased products*	$9.000
I	* *Biotechnology and health*	$9.500
I	Small Farms Initiative	$4.000
	Food Supply Subtotal	**$35,404**
Invest in Community Opportunities		
E	Smith-Lever Formula 3(b) & (c)**	$23.177
R	Rural Development Centers	$677
E	Rural Development Centers	$292
E	Children, Youth & Families at Risk	$1,500
I	* *Rural economic development*	$5.000
	Communities Subtotal	**30.646**
Invest in Environmental Balance		
R	Hatch Act**	$7.587
R	McIntire-Stennis**	$1.809
R	Global Change, UV-B Monitoring	$133
R	Integrated Pest Management & Biological Control	$2.269
R	Minor Crop Pest Management, IR4	$1.721
R	Pest Management Alternatives	$2.577
E	Pesticide Applicator Training	$1,500
E	Renewable Resources Extension Act	$11,808
I	Water Quality	$2,000
I	* *Waste Management*	$15,000
	Environment Subtotal	**46,404**
Invest in Capacity Building		
R	Evans-Allen (1890)	$3,521
E	1890 Colleges & Tuskegee	$4.757
E	1890 Facilities (Sec. 1447)	$2.800
T	1890 Institution Capacity Building Grants	$5,500
E	1994 Institution Facilities	$1.700
R	1994 Research Grants	$2,000
E	Extension Indian Reservation Grants (EIRP)	$3.000
E	Extension Services at the 1994 Institutions	$1.720
T	Tribal Colleges Education Equity Grants Program	$1,448
T	Tribal Colleges Endowment Fund	$4.900
T	Tribal College Research	$3,000
T	Hispanic Serving Institutions Education Grants Program	1500
	Capacity Building Subtotal	**35.846**
Cross-Cutting Funding Mechanisms		
R	National Research Initiative	$24.000
I	International Science and Education Grant Program	$8,000
	Cross-Cutting Total	**$32,000**
TOTALS		**200,000**

R = Research, E = Extension, T = Teaching, I = Integrated, * = Proposed new programs in Sec. 406, ** The proposed increases in these base formula funds would be targeted to these priority issues.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF WIC DIRECTORS

On behalf of the National Association of WIC Directors, NAWD, we appreciate the opportunity to submit this written statement to the Committee on the President's Fiscal year 2002 Budget Request for the Special Supplemental Nutrition Program for Women, Infants and Children, known as WIC.

WIC has an extraordinary 27 year record of preventing children's health problems and improving their long-term health, growth and development. WIC children enter school Ready To Learn and demonstrate better cognitive performance. Research shows:

—four and five-year-olds whose mothers participated in WIC during pregnancy had better vocabulary test scores than children whose mothers had not received WIC benefits.

—children participating in WIC after their first birthday had better digit memory test scores than children not participating in WIC.

WIC gives children a solid foundation for learning. Quality nutrition services is the centerpiece of WIC: nutrition and breastfeeding education, nutritious foods, and improved healthcare access for low and moderate income women and children with, or at risk of developing, nutrition related health problems. Committed, results oriented, entrepreneurial staff stretch resources to serve all eligible women and children and ensure program effectiveness and integrity.

As the nation's premier public health nutrition program, WIC is a cost-effective, sound investment—laying the foundation for America's children to learn.

The WIC Program's well-documented successes have earned WIC strong bipartisan support. Successive Congresses have demonstrated their commitment to moving the WIC Program toward full funding. The level of funding included in the fiscal year 2002 budget proposal, threatens the states' ability to maintain services to participants served in fiscal year 2001.

The Administration has proposed a $94 million increase in the WIC appropriation for fiscal year 2002 bringing WIC funding to a level of $4.137 billion over last year's appropriation level (minus the recission amount included in Section 1 (a)(4) of Public Law 106–554) of 4.043 billion. NAWD applauds the Administration for identifying WIC as a Child Nutrition priority. NAWD urges the Committee to consider the following:

WIC PARTICIPATION

January data sets WIC caseload at 7.259 million participants. This means that WIC has exceeded the Administration's caseload projections for fiscal year 2002 of 7.25 million participants;

Should the economy continue to decline and workers experience more layoffs as industry attempts to cut costs to improve profits, it is reasonable to expect that WIC caseload will grow;

The Administration projects an unemployment rate of 4.6 percent for the fiscal year 2002. In 1998, the last time the US experienced such an unemployment rate, WIC caseload averaged 7.37 million participants;

Some financial experts are projecting unemployment to reach as much as 5 percent;

This leads one to the inevitable conclusion that the level identified in the Administration's WIC funding request will be inadequate to meet a caseload which could well exceed 7.35 million participants.

WIC CARRYOVER OR RECOVERED FUNDS

The Administration estimates 2001 recoveries at a level of $180 million. Based upon state reallocation draws, a more reasonable estimate would be $170–$175 million;

The Administration estimates 2002 recoveries at a level of $136 million. If states continue to draw down recoveries at their current rate, this level too can be expected to decline to between $125–$130 million.

The existence of recovered food funds leads to the erroneous perception that WIC is over-funded. Financial estimates require resource margins that will protect states should food costs exceed available WIC funds. Voucher and rebate transactions occurring late in a fiscal year do not accrue to a state until early in the next fiscal year thereby contributing to the situation. On average, states will expend roughly 97 percent of their grant to ensure a sufficient margin of management safety and prevent caseload disruptions. It is neither possible nor prudent for WIC Directors to expend all of their grant resources in a fiscal year.

State Fiscal Managers would penalize Directors who overspend their grant as options are generally not available to provide state support.

States have moved to reduce the Program's level of carryover funds—advising USDA of available recoveries, and rendering resources available for reallocation to those states most in need of resources.

NUTRITION SERVICES AND ADMINISTRATIVE GRANT

While the Program's funding formula directs the percentage share of the overall grant which accrues to each component of the WIC grant—(1) Food and (2) Nutrition Services and Administrative—the percentage increase provided in the Administration's request for Food is 2.53 percent while the increase for NSA is 0.7 percent.

The NSA request is inadequate to support funded participation levels, cover cost of living raises for WIC staff, or inflation on equipment, supplies, materials, rents and utilities.

INFRASTRUCTURE GRANTS

The Administration provides no increase for infrastructure needs and directs that 43 percent of the requested $14 million be dedicated to electronic benefit transfer (EBT) development.

The joint NAWD/USDA Management Information Systems (MIS) Strategic Plan has identified a crisis in the status of WIC MIS systems. Fully ⅓ of the states' MIS systems are at least 7 years old. These systems are incapable of providing the data services that the nation's public health system needs to track client participation, health and nutrition records, avoid fraud and abuse, process vendor claims and track rebates.

The remaining $7 million in the Administration's request cannot possibly address the crisis WIC is facing with obsolete MIS systems. The joint NAWD/USDA MIS Task Force observed that it would require a commitment of $110 million—$150 million over three years to implement core functions, upgrade WIC technology, and maintain MIS and electronic services.

WIC FARMERS' MARKET NUTRITION PROGRAM & WIC SENIOR FARMERS' MARKET PROGRAM

While WIC has partnered with the Farmers' Market Nutrition Program (FNINP) since its inception, NAWD continues to believe that the FMNP should not be funded at the risk of turning away eligible individuals who seek WIC benefits.

Similarly, NAWD believes that WIC Senior Farmers' Market Program (SFMP) funding must not adversely impact WIC caseload. While NAWD regrets that the SFMP was not included in the Administration's budget, NAWD is pleased that the Administration recognizes the importance of protecting caseload.

WHAT SHOULD THE WIC BUDGET NUMBER BE?

To meet projected participation levels, given the Administration's unemployment projections and other factors, NAWD believes that the WIC funding level should provide for an increase to the Program of $214 million setting the Budget proposal at $4.248 billion. This represents an increase of $110 million above the Administration's request.

WIC is a short-term intervention program designed to influence lifetime nutrition and health behaviors in a targeted, high-risk population. WIC is the "Gateway to Good Health," providing quality nutrition education and services, breast-feeding promotion and education, access to prenatal and pediatric health care services, drug, alcohol and tobacco abuse information, and other services in 10,000 clinics administered by 2000 Local Agencies in 87 State WIC Programs.

WIC's monthly food prescription (package), tailored to meet the specific nutritional needs of clients, was provided to over 7.259 million participants last January, including 1.8 million pregnant, breast-feeding and postpartum women, over 1.9 million infants, and over 3.5 million children. To participate WIC requires that clients have one or more documented nutritional risks and incomes less than or equal to 185 percent of the poverty level. In fact, 92 percent of all WIC participants are at income levels below 150 percent of the poverty level.

Approximately 37 percent of all pregnant women in the United States are enrolled in WIC. Of these, roughly 46 percent enroll in WIC during their first trimester of pregnancy. At certification, 50 percent of pregnant women have three or more nutrition risk factors. Numerous studies have shown that pregnant women who participate in WIC have longer pregnancies leading to fewer premature births; have less low and very low birth-weight babies; experience fewer fetal and infant deaths; seek

prenatal care earlier in pregnancy and consume more of such key nutrients as iron, protein, calcium and Vitamin C.

It costs $601 a year for a pregnant woman to participate in WIC. By contrast, it costs $28,000 per pound to raise a low (less than 5.5 pounds) and very low (less than 3.25 pounds) birth-weight baby to normal weight (7 pounds). WIC prenatal care benefits reduce the rate of very low birth-weight babies by 44 percent. Medicaid costs are reduced by WIC on average between $12,000 and $15,000 per infant for every very low birth-weight prevented.

WIC promotes breast-feeding as the preferred method of infant feeding. Breastfeeding helps mothers feel close to their baby. Breast milk contains all the nutrients infants need to grow and develop. Breastfed infants tend to be healthier since they receive antibodies from the breast milk, which protects them against infection. In spite of an environment that generally does not support a woman's choice to breastfeed, WIC mothers have continued to increase their breast-feeding initiation rates. Better than 40 percent of WIC infants between the ages of 7–11 months are breastfed.

WIC helps to assure children's normal growth, reducing levels of anemia, increasing immunization rates, improving access to regular health care and improving diets. Fortyseven percent of all infants born in the United States are on WIC. Nearly twenty percent of all children in the United States are on WIC. Children are eligible for WIC up until they reach their fifth birthday. At certification, 48 percent of all children have more than one nutrition risk factor.

Four and Five-year-olds whose mothers participated in WIC during pregnancy had better vocabulary test scores than children whose eligible mothers had not received WIC benefits. Children who participated in WIC after their first birthday had better digit memory test scores than children who did not participate in WIC.

Of the Federal appropriation, only 9 percent of the WIC grant to states is allocated for program administration; 16 percent is allocated for direct care activities needed to assess eligibility, provide nutrition education, breast-feeding support and promotion, screen immunization status, issue food benefits, register voters and provide other mandated or necessary client services. The remaining 75 percent of the WIC grant is allocated for food benefits.

States continue to stretch available WIC funds through rebates on foods and other cost saving initiatives—including adjustments in food benefits. In 1986, State WIC agencies began using their infant formula buying power (40 percent of national infant formula sales) to achieve bulk purchaser savings, in the form of monthly rebates paid by infant formula manufacturers. These state-initiated and operated rebate programs currently function in all state and most Indian Nation WIC Programs.

Rebates save over $1.4 billion for Federal tax payers—34 percent of the program's total appropriation—and fund services for 1.8 million women and children. WIC's cost 4 containment measures are among the most effective cost containment measures to be found.

States need to be allowed to use cost-saving revenues in the same way as grant funds or other program income. Identifiable and predictable food cost savings could be considered as funds returned to the entire WIC grant and not just the food grant; each state would then be able to direct a portion of these funds to NSA services, capping at a preset rate such as the current NSA grant ratio.

Again, Mr. Chairman and Members of the Committee, we thank you for this opportunity to present this statement on behalf of the National Association of WIC Directors, NAWD. Should you have any questions, please feel free to contact Douglas A. Greenaway at 202/232–5492.

PREPARED STATEMENT OF THE NATIONAL BEEF CATTLE EVALUATION CONSORTIUM

Mr. Chairman, Members of the Subcommittee, this testimony is for the record of proceedings on the fiscal year 2002 Department of Agriculture Budget. The testimony is presented on behalf of the National Beef Cattle Evaluation Consortium, which consists of four universities, Colorado State University, Cornell University, Iowa State University, and The University of Georgia. This consortium was created in response to requests from beef industry leadership groups to create a sustainable research and development program in genetics for that industry. We are happy for this opportunity to thank you for your support during last year's budget proceedings. We would like to take this opportunity to update you on this program as well as issues we are currently addressing and those we are planning to address.

As you know, this Committee provided Federal funds ($265,000) last year to support the creation of the consortium. The reason for creating this consortium was to

address the lack of organization in research programs for genetic evaluation of beef cattle for improvement of the national cow herd resource through selection. This consortium will serve in a capacity much like the USDA Animal Improvement Production Lab, Beltsville, MD does for the dairy industry, a model that has positioned the U.S. dairy cow among the elite production animals in the world. Through these Federal dollars, with support from the four universities and various segments of the beef industry, we have established the infrastructure of the consortium and have begun research in several important areas.

The mission of the consortium is to develop and implement improved methodologies and technologies for genetic evaluation of beef cattle for the purpose of maximizing the impact genetic programs have on the economic viability, international competitiveness, and sustainability of U.S. beef cattle producers and to provide consumers with affordable and healthy beef products. To achieve the goal intrinsic to this mission statement, we have created the following objectives:

—Establish and coordinate priorities for genetic evaluation of U.S. beef cattle with the goal of positioning the U.S. as a leader in this area thereby increasing the global competitiveness of the U.S. beef industry.

—Consolidate efforts among the four land-grant institutions to conduct research to meet these priorities with the goals of reducing duplication of effort and maximizing the return of useable information to the beef industry.

—Streamline the process between the development and adoption of new genetic evaluation methodologies by the industry with the goal of ensuring the economic viability and sustainability of producers in the U.S. beef industry.

—Identify new traits and technologies for inclusion in genetic programs with the goals of reducing the costs of beef production and providing consumers with a high value, healthy, affordable protein source.

—Create decision-making tools that incorporate the increasing number of traits being evaluated and the increasing amount of information from DNA biotechnology into genetic improvement programs with the goal of optimizing the overall efficiency, product quality/safety, and health of the national cattle herd resource.

The U.S. cattle industry is comprised of more than one million individual farms and ranches operating in all 50 states. Total sales of cattle and calves have exceeded 30 billion dollars per year in recent years. Beef is the most popular meat in America. In 1997, U.S. cattle ranchers produced beef with a total retail value of $50.6 billion, and American consumers spent an average of $186.03 per person on beef. Nearly 8 percent of U.S. beef is produced for export, with a total value greater than $4.5 billion.

The continued production of high-quality, healthy and affordable beef is dependent on the availability of information upon which to make prudent selection decisions. The most important tool for selective breeding is expected progeny differences (EPD). An EPD is a prediction of the genetic merit of an animal and as such the potential impact of that animal as a parent. The investment in EPD production and research made by the U.S. beef industry since 1990 is approximately $350,000 per year, with no direct Federal support.

The ability to influence the genetics of U.S. beef cattle has greatly enhanced U.S. competitiveness in the world marketplace. However, current research and outreach efforts are fragmented and rely on the expertise of just a few scientists. Other countries, most notably Brazil and Australia, have made large public investments in beef breeding stock genetic evaluation and are threatening to diminish America's edge in the export market.

With the appropriation received thus far, we have established the infrastructure of the consortium to include creating a board of directors and industry advisory committee. We have met with allied industries and producer groups to prioritize our programs and to establish channels of communications between the industry and the consortium. We have also begun research efforts in the following focus areas:

—Developing predictions for new traits such as reproductive efficiency, carcass composition and quality that are important to the efficiency and profitability of beef production. A high priority is the identification of economically relevant traits (ERT) and systems to evaluate potential breeding stock for these ERT's.

—Including DNA information in genetic evaluation programs to enhance the accuracy of predictions of genetic merit. We are in the midst of a genetic revolution fueled by discoveries in molecular genetics that is overwhelming science and field applications of technology with data. Research into the inclusion of data from DNA technology into systems that assess genetic merit is necessary to convert that data into useable information.

—Creating selection decision tools to improve production efficiency, product quality/safety and herd health. Selection for species with diverse and dynamic pro-

duction criteria is a challenging task. Animals in a production system must be reproductively sound, efficient, and produce healthy products. Selection decision tools will be necessary to afford producers the opportunity to identify individuals that bring the best balance of all these required characteristics and do so in a cost effective manner.

—Developing new methodologies to enhance the accuracy, reliability and productivity of the EPD production systems.

Future appropriations will enable the consortium to continue research efforts in the initial focus areas, draw in researchers from other institutions to broaden the areas of expertise within the consortium, and, in doing so, allow us to establish new focus areas of research. One important area of research that needs to be established with new funding and moved forward quickly is the area of the genetics of animal health. There are currently no genetic programs in place that allow producers to address selection for improved animal health and disease resistance. The emphasis on disease in cattle and how those diseases impact the beef products is receiving considerable attention in the public today. Establishing best breeding practices for animals going into the food production system is becoming an increasingly important requirement to reduce the reliance of animal industries on antibiotics and to increase consumer confidence in the products from those industries.

Once again, we thank you for the financial investment you have made in the consortium. We feel the foundation has been laid for an effective program in beef cattle evaluation and the industry is already working with the consortium leadership to establish mechanisms for technology transfer as discovery occurs. We are confident that the creation of the consortium will revolutionize the selection programs for this industry and, in doing so, keep that industry positioned to provide a quality source of protein to U.S. consumers and to compete in the global market. Thank you.

PREPARED STATEMENT OF THE NATIONAL COALITION FOR FOOD AND AGRICULTURAL RESEARCH

INTRODUCTION

The National Coalition for Food and Agricultural Research (National C–FAR) appreciates very much this opportunity to submit its views regarding the fiscal year 2002 agriculture appropriations bill and respectfully requests that this statement be included as part of the official hearing record.

NATIONAL C–FAR

National C–FAR, is a newly organized broad-based stakeholder coalition of food, agriculture, nutrition, conservation and natural resource organizations. It is a nonprofit, nonpartisan, stakeholder-driven, and consensus-based coalition focused on food and agricultural research funding and priority setting. It is dedicated to fostering public confidence in food, agricultural, nutritional and natural resource research through public participation in planning and evaluating the process and impact of research activities. Membership is open to those who support the objectives of (1) enhancing Federal investments in U.S. food and agricultural research and extension and (2) expanding stakeholder participation in identifying funding needs and opportunities.

The mission of National C–FAR is to double Federal funding of food, nutrition, agriculture, natural resource, and fiber research, extension and education programs during the next five years. This is to be net additional funding on a continuing basis that will complement, not compete with or displace the existing portfolio of Federal programs of research and education.

OVERVIEW

There are many challenges facing agriculture both near and long term. These include dealing with continued low commodity prices and reduced farm income, safeguarding our borders against the introduction of the devastating BSE ("mad cow" disease) and foot-and-mouth diseases, addressing concerns over biotechnology, as well as a number of other challenges. While Congress has been very supportive of a number of near term actions, it is equally important to focus on policies and programs needed to promote the long term economic well being and profitability of agriculture for the benefit of producers and consumers alike. To help achieve this objective, we believe, a key component of any long-term strategy should include increased support for food and agricultural research and education.

To paraphrase the old adage, an ounce of prevention is worth a pound of cure. We believe one dollar of funds invested in research now will pay back eight or more

dollars of public benefits in the future. Investments in U.S. food and agricultural research and education have already paid huge dividends to the United States and the world, especially in the latter part of the 20th century. Research based technological advances, such as the ability to produce higher yielding crops and animals with improved human nutritional qualities, have allowed for a more abundant, safe, efficient and environmentally friendly food supply, improved human health and well-being, and yes, longer lives and lower health costs. New discoveries are advancing our understanding of the relationship between food and health—another rationale for investment in research. Only research can provide the answers and identify the types of changes that need to be made to effectively provide the food supply with optimal nutrition for the future.

We want to thank the leadership and members of this committee for supporting programs and funding that have helped make these accomplishments possible. Yet, despite the best efforts of this committee and the world-renowned success of U.S. food and agricultural research, Federal funding has not kept pace with inflation.

In real terms, we now spend less on food and agricultural research than we did in 1978. We believe this statistic suggests that Federal support could be as much as a quarter century behind. Today we spend only $1 of Federal food and agricultural research in the USDA for each $500 consumers spend on food and fiber. There is a very real concern this less than optimal investment in food and agricultural research will unintentionally restrict our nation's competitiveness, living standard and general economic growth and development.

While our coalition is initially directing our collective efforts on securing a doubling of Federal food and agricultural research funding, our ultimate goal is not budgetary, but the many benefits that will accrue to each American that a doubling of funding will bring about. We believe increased funding of food and agricultural research will result in:

—Safer, more nutritious, convenient and affordable foods
—More efficient and environmentally friendly food, fiber and forest production
—Improved water quality, land conservation and environment
—Less dependence on non-renewable sources of energy
—Expanded global markets and improved balance of trade
—More jobs and sustainable rural economic development

At National C–FAR's inaugural meeting less than two months ago on January 31, 2001, in Washington, DC, 100 leaders in the food, agriculture, natural resource organizations and key Federal officials heard a speech by Dr. Norman Borlaug, the Nobel Peace Prize award winner, who started the "Green Revolution." The Green Revolution expanded food and agricultural production and saved one billion people from starvation. Dr. Borlaug noted: "Few industries have been as productive and innovative as agriculture during the 20th century." Yet he cautioned, "Despite the successes of the Green Revolution, the battle to ensure food security for hundreds of millions of miserably poor people is far from won. . . . Continuing research breakthroughs will be needed." Borlaug also noted "Agricultural productivity increases, made possible through research and new technology development, spared an area slightly greater than all the land in 25 states east of the Mississippi River for other uses."

Dr. Johanna Dwyer, Director of Frances Stern Nutrition Center and New England Medical Center and Tufts University School of Nutrition Science and Policy, also spoke during the inaugural meeting. Dr. Dwyer emphasized the connections between the entire system of agriculture, food and nutrition for our nation and the importance of food and agricultural research as it contributes to the nation's health by discovering ways to improve the nation's nutritional status. Strong connections were illustrated between nutrition and agricultural yield, efficiency, sustainability and safety and quality. Dr. Dwyer highlighted the need for research that will improve the nation's dietary diversity, nutrition profiles, decrease malnutrition, and ensure sound nutrition over the long term through improved efficiency of plants and animals.

HOW SHOULD THE ADDITIONAL FUNDS BE SPENT?

While National C–FAR does not have a list of research project recommendations, through our members and their association with other related coalitions, we are well aware of urgent research needs to address and opportunities to explore. Several coalitions, committees and scientific societies, including those listed below, have identified these needs and opportunities:

—Coalition for Research on Plant Systems—CROPS 1999
—Food Animal Integrated Research for 2002—FAIR 2002
—Institute of Food Technologists—Food for Health Research Needs

—Council on Food, Agricultural, and Resource Economics—Economics and Research Priorities for an Efficient and Sustainable Food System
—American Society for Nutritional Sciences
—National Agricultural Research, Extension, Education, and Economics Advisory Board
—American Dietetic Association

Members of our Research Committee have presented to our Board a compilation of these studies. While several emerging needs and opportunities have been identified, we also want to stress the continuing need to build the capacity to do quality research and education, including human resources, infrastructure support, formula funds, and core programs. It is important to maintain a balanced portfolio of Federal research and education programs, including competitive grants, formula funds and intramural programs. Agriculture is a biologically based industry and many of the problems are site specific. Hence, we need to maintain a diversified research and education system. Major areas of research that have been commonly identified by most, if not all, of the related coalitions that are in need of additional funding include:

—Food security, safety, fortification, enrichment and allergens
—Nutrition and public health
—Production quantity and quality; nutrient adequacy; global competitiveness; and new market opportunities
—Environmental stewardship and resource conservation and the scientific basis for public policies relating to the environment, plants and animals
—Increasing knowledge, skills, and expertise
—Emergency preparedness for emerging plant and animal diseases and bio-terrorism
—Product pioneering for food, nutrition, biobased materials and biofuels
—Genetic resources, genetic knowledge, and biotechnology
—Jobs and rural community economic vitality
—Education and outreach to producers, processors and consumers including food safety, sound nutrition, conservation, management, and new technology

Our coalition arose from a shared mutual concern about the capacity of our agricultural research system as a whole to meet the future demands and capitalize on emerging opportunities. We will need a research system that simultaneously satisfies needs for food quality and quantity, resource preservation, producer profitability and social acceptability. This coalition will be working on ways to help assure that these needs are met.

CONCLUSION

For all these reasons, the National Coalition for Food and Agricultural Research recommends that Federal investments in food and agricultural research be doubled over the next 5 years. This objective translates into roughly an increase of 15 percent per year of the research, extension and education in USDA and other Federal agencies or about $500 million increase per year for 5 years.

This is a small investment compared to the $1 trillion dollar size of our food and agricultural sector. However, we believe it is a strategic and wise investment that would: (1) benefit producers and consumers of all commodities and all states; (2) improve income opportunities for farmers; (3) contribute to the United States remaining the best fed country with the lowest share of income spent on food; (4) strengthen our competitiveness in the global marketplace, while achieving the proper balance with human and environmental needs; (5) enable producers to produce safer, healthier foods; (6) find new uses for agricultural products; and (7) enhance the protection of our natural resources.

Again, we appreciate the opportunity to share our views. We look forward to working with you and the members of this Subcommittee in support of these important long-term objectives.

PREPARED STATEMENT OF THE NATIONAL CONSORTIUM FOR RURAL GEOSPATIAL INNOVATIONS IN AMERICA

As your subcommittee prepares the fiscal year 2001 Agriculture, Rural Development and Related Agencies appropriations, we are requesting that you provide $1.6 million to support the Geographic System Information Program (GISP). We appreciate the support your subcommittee has provided our Program in the past. This Program has received funding from the Research and Education account of USDA's Cooperative State, Research, Education, and Extension Service (CSREES).

The National Consortium for Rural Geospatial InnovationS (RGIS) is a group of eight university and non-profit sites distributed across the U.S. With the support of the Geographic System Information Program, RGIS sites assist state, tribal, regional and local governments and non- and for-profit organizations in implementing advanced geospatial information technologies. The last decade has seen an explosion of computer-based technologies for the creation and management and distribution of information about natural resources, property records, infrastructure, transportation, and other land use arenas. These technologies include geographic information systems (GIS), remote sensing image processing, global positioning systems (GPS) and other related information technologies. RGIS uses a variety of approaches to make these technologies understandable, affordable and useful. (See enclosure, National Consortium for Rural Geospatial Innovations in America, Summer 2000)

The mission of RGIS is to increase access to digital technology in rural America. We promote the transfer of geospatial technologies by:

—Providing geospatial tools, technologies, and training to empower local governments, organizations, and citizens to understand and participate in decisions that affect their economy, quality of life, and environment;

—Educating and training a cadre of people to apply geospatial technologies to rural issues;

—Supporting the development of appropriate local land information systems, as well as linkage to and cooperation with regional, state, and national land information systems.

—The goal of the program is to improve the quality of life, environmental health, and economic competitiveness in rural communities.

RGIS members have proved that geospatial technologies are efficient and cost-effective tools to improve local decision-making and local governmental processes. RGIS members have enabled local communities to develop better information, which has allowed local communities to make better decisions on a variety of issues including farmland preservation, emergency services, watershed management, land records modernization, and environmental protection. Continued funding of the Program will allow the organization to continue these benefits and leverage other resources to improve the quality of life in rural America and insure these communities have access to cutting-edge technologies.

The eight existing sites are contributing the following:

—Wilkes University and Kings College in Pennsylvania bring expertise in how to implement geospatial technologies among rural local governments and engineering mapping skills for comprehensive watershed planning. (See Tackling Environmental Clean-up with GIS, February 2001)

—Pennsylvania State University brings expertise in how to apply geospatial technologies to assess agricultural quality for rural land use planning and management and spatial analytic methods for assessing the environment. (See Farmland Protection and GIS, December, 2000)

—University of Wisconsin-Madison continues its extensive set of geospatial outreach training programs, including hands-on land use planning and management program for county and town level planners. Selection by the Federal Geographic Data Committee (FGDC) Community Demonstration Program has provided an opportunity to assist local citizen planners in accessing new land use planning and management tools. (See On Solid Ground, June 2000)

—University of North Dakota continues to respond to the expanding interest in geospatial technology by local governments. One of the most rewarding developments has been the assistance provided to the City of Grand Forks in the aftermath of the 1997 devastating flooding of the Red River. (See Making Road Travel Safer, November 2000)

—University of Arkansas continues to provide local, state and national leadership. Examples include providing geospatial expertise to the Arkansas Land Records Modernization Board, GIS training camps for local high schools, and assisting the NRCS in developing the capacity to transfer soils and orthophotography information over the Web. (See Finding the Lay of the Land on the World Wide Web, November, 2000)

—Central Washington University continues to support the modernization of irrigation records used by water management boards to insure equitable distribution of hydraulic resources and continues to assist tribal and local rural communities assess the role and use of geospatial technologies. (See GIS Transforms Irrigation Management in Kittitas Reclamation District, September, 2000)

—South Georgia Regional Development Center continues to assist local governments to modernize land record systems such as parcel records for various applications including economic development and infrastructure management.

(See Ben Hill County, Georgia Reaps Benefits From GIS and Damping High Fire Insurance Rates, March, 2001)

—Southwestern Indian Polytechnic Institute (SIPI), in its inaugural Program year, started a program to assist tribal communities utilize GIS and GPS technologies for agricultural and local land management applications. Also SIPI hosted a satellite distance education geospatial program for 29 tribal colleges across the U.S. Each RGIS Program Site participated by providing a 15-minute technical segment to the two-hour satellite program.

PREPARED STATEMENT OF THE NATIONAL COTTON COUNCIL OF AMERICA

This is to transmit the cotton industry's request for fiscal year 2002 funding for selected programs under the jurisdiction of Subcommittee on Agriculture, Rural Development and Related Agencies. The National Cotton Council appreciates your assistance in making this statement a part of the hearing records related to the fiscal year 2002 appropriations bill.

The National Cotton Council of America (NCC) is the central organization of the U.S. cotton industry representing growers, ginners, warehousemen, cottonseed crushers, merchants, cooperatives and manufacturers whose primary business operations are located in 16 cotton producing states. Cotton Council International (CCI) is the overseas promotion arm of the cotton industry. The annual average farm gate value of U.S. cotton production is about $5 billion and its retail value averages approximately $60 billion. U.S. raw cotton exports normally account for approximately 40 percent of annual production and are valued at approximately $4 billion. U.S. textile manufacturers continue to be the U.S. cotton producer's most important customers. In addition to the fiber, cottonseed products are used for livestock feed, and cottonseed oil is used for food products ranging from margarine to salad dressing. Cottonseed and cottonseed products generally account for about 3 percent of the annual revenue generated from U.S. cotton production. Cottonseed contributes about 17 percent of the value of the crop at the farm gate.

Cotton and cottonseed prices remain at historic lows and market observers predict low prices could continue for the foreseeable future. Asia's slow economic recovery; changes in China's cotton import policy; and an excess supply of cotton have all effected demand for U.S. raw cotton. The strong U.S. dollar relative to other currencies has made exporting bulk commodities difficult and spurred alarming increases in textile and apparel imports into the U.S. Excess production and cheap prices for synthetic fibers also contribute to a situation that has cotton farmers and their customers deeply concerned by shrinking operating margins.

The financial assistance Congress provided for economic and weather related losses for the last 3 crop years has been critically important for farmers and the industry infrastructure. Unfortunately, as was noted in a recent letter sent by 25 Senators to Chairman Domenici, the combination of chronically low prices, escalating input costs and sluggish demand will result in continued low farm income and the need for an emergency economic assistance package in 2001 to provide at least the same level of economic assistance as was provided for the 2000 crop.

In the long-term, cotton farmers will benefit from federally funded programs and activities designed to reduce production costs and build demand. Successful completion of the boll weevil eradication program, control of the pink bollworm, new technology developed through research, and demand building export programs including MAP, FMD and GSM credit are all essential to our industry.

The cotton industry's long-term viability depends on: an effective farm policy without unreasonable eligibility restrictions or limitations on benefits, including a marketing loan and adequately funded 3-step competitiveness provisions; an investment in the development and application of scientific principles; and, aggressive market development activities. The National Cotton Council welcomes the opportunity to provide the following recommendations and requests for fiscal year 2002 appropriations for programs which make important contributions to our industry's ability to compete and prosper.

FUNDING PRIORITIES

Pink Bollworm Programs (APHIS).—$6 million to continue the San Joaquin Valley (SJV) containment program and to begin sterile moth release phase of the pink bollworm eradication program initiated in 2001 in the Trans Pecos/El Paso Valley of Far West Texas (in combination with the Boll Weevil Eradication Program). The pink bollworm is a serious cotton pest in Texas, Arizona, New Mexico and California with costs of prevention, control and yield loss exceeding $21 million annually. Sterile moth releases, pheromone traps and cultural methods have proven successful in

preventing establishment of the pink bollworm. Growers in the SJV provide a significant portion of containment program costs through a self-assessment. Sterile moths are reared in a facility in Phoenix, financed by California growers. Management equipment, methods and partial support for rearing and operations are furnished by APHIS. The Far West Texas eradication program will initiate the three-phase program to eliminate the pink bollworm as a pest in Texas, New Mexico, Arizona, California and adjacent cotton areas in Northern Mexico. Program will employ Bt cotton, pheromones for mating disruption and sterile insect releases as eradication technologies. Increased funding in fiscal year 2000 and fiscal year 2001 allowed APHIS to prepare for demands of the Texas program. The significant increase in funding for fiscal year 2002 will allow the Phoenix facility to produce sufficient quantities of sterile moths to supply the SJV program and the new area wide program in Far West Texas.

Boll Weevil Eradication (FSA).—Sufficient funding to allow FSA to make at least $100 million in loans to eligible Boll Weevil Eradication Foundations. To the extent Federal cost-share funds are insufficient for a 30 percent contribution and to assist producers in areas where farm income is extraordinarily low, loan funds are critical to successful operation and completion of the eradication program. There may also be an interest in expanding eligibility to include the pink bollworm eradication program to ensure it is adequately funded.

Boll Weevil Eradication (APHIS).—$82.2 million for APHIS to maintain the Federal cost share at approximately 30 percent. More than 10 million acres in Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Texas, Oklahoma, Missouri and New Mexico will be under active eradication in 2001 and 2002 with a projected total program cost of $274 million. Approximately 4.5 million acres in Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Texas, Tennessee, Arizona and California will be in post-eradication having been declared weevil-free. The program has achieved documented economic and environmental benefits. Adequate Federal cost-share funds are critical to timely completion. APHIS should also be directed to make every effort to minimize overhead and administrative expenses for boll weevil eradication to ensure maximum funding reaches field operations.

Market Access Program (MAP).—$90 million is currently authorized by 1996 farm law. Cotton Council International actively promotes exports of U.S. cotton and cotton products in Asia, Europe and Central and South America. Activities carried out using MAP (and FMD) have been responsible for increased export sales of raw cotton and value-added cotton products. Exports of value-added cotton products add more than $6 billion to the overall value of cotton exports. For every $1 in MAP and FMD funds, CCI has generated matching contributions of over $9.00. The industry also supports funding to ensure FAS is adequately staffed to carry out important market development and trade enhancing functions in headquarters and abroad.

Foreign Market Development (FMD).—The fiscal year 2000 appropriations measure included a provision resulting in funding for the FMD Cooperator Program being provided through CCC rather than as part of the annual FAS appropriation. The industry requests the subcommittee to urge FAS to support FMD activities by programming not less than $33.5 million for fiscal year 2002, the absolute minimum amount necessary to sustain current levels of market development activities.

GSM–102 Credit Guarantee (FAS).—Maintain authority to make at least $5.9 billion in GSM–102 guaranteed export credit available for use by U.S. exporters and customers. Urge U.S. negotiators at the DECD not to agree to modifications in the terms and conditions of the program, which render it unworkable for U.S. exporters and their customers. An ineffective GSM–102 program would reduce U.S. cotton exports by up to 500,000 bales and reduce prices by as much as 3 cents per pound. Consider modifications to the rules governing the program to include authority to accept repayment in foreign currencies, to allow the guarantee to cover cost of shipping and other regulatory adjustments to improve the value of the program for U.S. exporters and their customers.

Aflatoxin (ARS).—The cotton industry strongly supports the funding recommendations of the Multi-Crop Aflatoxin Working Group and particularly the work by Dr. Peter Coty with AF–36 in Arizona.

Ginning Research (ARS).—Urge ARS to continue to provide funding at not less than fiscal year 2001 levels for operations and research activities conducted at the regional ginning labs at Stoneville, MS; Lubbock, TX; and Mesilla Park, NM.

Ginning Specialist (CSREES).—Urge ARS/CSREES to fill the vacant position and continue full funding of the Cotton Technology Transfer and Education Coordinator with headquarters in Stoneville, MS.

Precision Agriculture (CSREES).—Request that priority be given to funding for precision agriculture applications research and that USDA be provided funds for use in matching NASA/Earth Sciences Enterprises allocations to precision agriculture.

Shafter Cotton Research Station (ARS).—Urge ARS to maintain funding for cotton research conducted at the Station and not to shift funds or staffing resources from Shafter.

Agricultural Genetic Resources.—Urge an increase of $10,000,000 for USDA's National Plant Germplasm System (NPGS). An increase for the NPGS would provide funds for acquisitions of specific cotton germplasm from Russia, Uzbekistan and Latin America. Funds will also enhance winter nursery capabilities in Mexico, intensify cotton germplasm regeneration program and develop methods for precise description of cotton genomic viability. Work will be done at College Station and Lubbock, Texas. It would also provide funds to Phoenix, AZ for broadening the relatively narrow genetic base for upland and pima cotton varieties in Western and Southwestern U.S. by incorporating genes from wild relatives.

Farm Service Agency.—Provide adequate funding so the agency can deliver essential programs and services.

Other.—Support funding for value-added textile research at New Orleans ARS/SRRC and ARS/Clemson, SC; PM10 air quality research by CSREES; silverleaf whitefly control programs; conservation programs including CRP, WRP and WHIP; the Office of Pest Management Programs which continues to provide important assistance to growers during EPA's review of critical crop protection products; and the Aerial Application Technology Program at College Station.

Research & Extension.—Support formula funding for Research and Extension; National Extension Priorities including water quality, food safety, and pesticide assessment program, and, funds for National Research Initiative.

Cotton Classing Services (AMS).—The cotton classing services provided by USDA's AMS Cotton Division are critically important to marketing U.S. cotton. Cotton must be classed to be eligible for the CCC loan. AMS has successfully held classing fees at current levels for several years. For 2001, the agency is anticipating a significant increase in energy expenses and qualified seasonal employees are in short supply at most classing office locations. Yet in recognition of the severe economic stress in the industry, the agency has elected to hold fees at 2000 crop levels. Over the next 3 years, significant capitol investment will be required to install new automated classing equipment which will improve accuracy and reduce labor costs. The industry urges the Committee to consider providing appropriated funds for fiscal year 2002 and fiscal year 2003 to be used for the purchase of new automated equipment as reliable equipment becomes available.

PREPARED STATEMENT OF THE NATIONAL COUNCIL OF FARMER COOPERATIVES

The National Council of Farmer Cooperatives (NCFC) appreciates very much this opportunity to share its views regarding the fiscal year 2002 agriculture appropriations bill, and respectfully requests this statement be made a part of the official hearing record.

OVERVIEW OF NCFC AND FARMER COOPERATIVES

The National Council of Farmer Cooperatives (NCFC) is a national trade association representing nearly 100 regional marketing, supply and credit cooperatives, and state councils. Included among these regional cooperatives are over 3,500 local cooperatives whose farmer owners represent a majority of America's 2 million individual farmers. With approximately 300,000 full-time and seasonal employees, farmer cooperatives also represent a significant source of employment in many rural communities.

Farmer cooperatives are farmer owned and controlled. They exist for the mutual benefit of their farmer members. As farmer-owned businesses, they handle, process and market virtually every type of commodity produced in the U.S.; manufacture and sell farm supplies; and provide credit and related financial services for and on behalf of their member owners. Earnings from such activities are returned to their member owners on a patronage basis, thereby helping improve the income of farmers and contributing significantly to the economic and tax base of local communities.

NEAR AND LONG TERM ACTION NEEDED

The experience of the last three years has demonstrated again how farm income can be highly variable due to the inherent risk associated with production agriculture and the volatile nature of commodity markets. Today, without continued

government assistance, farm income will again be down significantly due to continued low commodity prices and rising production costs.

Congress has been very generous in its response and we strongly support continued assistance to help meet the immediate income challenges facing agriculture. However, action is also needed to promote a more lasting economic recovery with regard to agriculture.

FARMER'S SHARE OF THE CONSUMER DOLLAR DECLINING

The farmer's share of the consumer food dollar has steadily declined to where it now represents just 20 cents, its lowest level ever. Reversing this decline would substantially improve net farm income and reduce the need for direct emergency economic assistance long term. For example, increasing the farmer's share of the consumer food dollar by just one cent to 21 cents would have added over $6.2 billion to farm income in 1999 and potentially reduced dependence on direct government payments.

GLOBALIZATION CONTINUES TO DRIVE CHANGES IN FOOD AND AGRICULTURE INDUSTRY

Globalization continues to drive changes throughout the economy, including continued consolidation in the food and retail sectors, as individuals and businesses look to gain the size and scale needed to become more efficient and competitive in a global economy. This has renewed concerns over the impact of such changes on farmers and their ability to remain competitive and obtain a fair return on what they produce.

INTERNATIONAL MARKETS CHARACTERIZED BY FOREIGN SUBSIDIES

According to a recent analysis by USDA, the European Union (EU) and other foreign competitors are now outspending the U.S. by a factor of 20 to 1 with regard to the use of export subsidies and other expenditures for export promotion.

The same study shows that such countries are spending over $100 million just to promote sales of their products in the United States. In other words, they are spending more to promote their agricultural exports to the United States, than the U.S. is currently spending ($90 million) to promote American agricultural exports worldwide!

RECOMMENDATION OF NCFC TASK FORCE

In an effort to help identify and recommend specific actions needed to help meet the challenges facing farmers, NCFC established a special Task Force comprised of both farmer owners and managers of farmer cooperatives across the U.S. According to the task force, a key component of any strategy aimed at addressing the challenges facing agriculture should include action to strengthen the ability of farmers to join together in cooperative self-help efforts to improve their income from the marketplace, manage their risk, capitalize on potential market opportunities, compete more effectively in a rapidly changing global economy, and enhance their economic well being and profitability long term.

USDA FARMER COOPERATIVE PROGRAMS

Programs to help foster and promote such cooperative self-help efforts by farmers need to be revitalized and given a high priority. To help achieve this objective, we recommend that a separate agency be established within USDA, along with specific funding of not less than $6 million for fiscal year 2002, to carry out programs relating to farmer cooperatives.

FARMER COOPERATIVE RESEARCH, EDUCATION AND TECHNICAL ASSISTANCE

Funding for USDA research, education and technical assistance in support of cooperative self-help efforts by farmers should also be strengthened. Accordingly, not less than $6 million should be provided for programs relating to farmer cooperatives. This would include not less than $3 million for cooperative research agreements and not less than $3 million for cooperative education grants.

Provisions should also be included to require such programs be carried out by public private partnerships with organizations with proven and demonstrated expertise to improve coordination and delivery of such programs, and to maximize available resources. We also recommend that not less than $1 million of available funds for cooperative education grants be utilized to help expand existing national cooperative education programs to provide farmers with greater access to the information

and technical assistance needed for organizing and operating a farmer owned cooperative business.

Funding for value-added technical assistance grants should also be maintained at not less than $25 million for fiscal year 2002 to further encourage and promote cooperative self-help efforts by farmers.

USDA'S B&I LOAN GUARANTEE PROGRAM AND FARMER COOPERATIVES

USDA's Business and Industry (B&I) guaranteed loan program should be modified and strengthened to provide farmer cooperatives and their farmer owners with access to capital on a similar basis as currently available under related programs for rural electric and other types of cooperatives. This would include eliminating the current limitation on the amount of a guaranteed loan that may be made to a farmer cooperative, among other changes needed to provide greater program flexibility consistent with other types of cooperative lending programs. Farmers and their cooperatives need improved access to capital to modernize and expand, invest new plant and equipment, meet costly environmental and other regulatory requirements, capitalize on potential market opportunities, and to compete effectively in a rapidly changing global economy. In addition, funding for USDA's B&I guaranteed loan program should be increased to provide up to $10 billion in guaranteed loan authority for such purposes.

USDA COMMODITY PURCHASE PROGRAMS

We strongly urge that statutory and report language included in the fiscal year 2001 agriculture appropriations bill be included in the fiscal year 2002 bill to ensure that farmer cooperatives are fully eligible to participate in USDA's commodity purchase programs. Such programs serve two important purposes. One, they help meet the food and nutrition needs of consumers. Second, they provide an important market outlet for farmers, especially during periods of surplus production, thereby helping strengthen farm income and promoting orderly marketing.

However, under previous guidelines established by USDA, this important market was eliminated for many farmers choosing to cooperatively market their products. The fiscal year 2001 agriculture appropriations bill addressed this by clearly providing that farmer cooperatives are fully eligible to participate in such programs for and on behalf of their farmer owners. In doing so, it preserves an important market outlet for many farmers, promotes orderly marketing, encourages cooperative self-help efforts, and helps maintain and strengthen farm income—since proceeds from the sale of commodities and related products are returned to the cooperatives' farmer owners as patronage income. It also serves to increase the potential quantity and quality of commodities and related products available for purchase and use under such programs, and provides for more competitive bidding among participants. Finally, it helps contribute to stronger rural communities where farmer cooperatives and their farmer owners are located. For all these reasons, we again urge such provision be included in the fiscal year 2002 agriculture appropriations bill.

EXPORT PROGRAMS

We also believe it important to maintain and strengthen funding for USDA's export programs, including the Market Access Program (MAP) and Foreign Market Development (FMD) Cooperator Program, and we endorse the recommendations of the Coalition to Promote U.S. Agricultural Exports of which NCFC is a member. Such programs have been tremendously successful and extremely cost-effective in helping maintain and expand U.S. agricultural exports, countering subsidized foreign competition, protecting American jobs and strengthening farm income.

Programs such as MAP and FMD have also helped encourage and strengthen the ability of farmers to join together in cooperative efforts to promote their products in overseas markets and improve their income. Administered on a cost-share basis, they remain one of the few tools specifically allowed under the Uruguay Round Agreement to help American agriculture and American workers remain competitive in a global marketplace still characterized by subsidized foreign competition.

We also urge continued funding for other related USDA export programs, including the Export Enhancement Program (EEP), Dairy Export Incentive Program (DEIP), GSM Export Credit Guarantee Program, and Public Law 480. All of these programs continue to be essential to help encourage U.S. agriculture exports, counter subsidized foreign competition, protect American jobs, and strengthen farm income.

AGRICULTURAL RESEARCH

Another important area of emphasis when it comes to enhancing the global competitiveness of farmer cooperatives and American agriculture is research. It is equally important to help ensure that farmer cooperatives and American agriculture can continue to help provide consumers at home and abroad with a dependable supply of safe, high quality food and fiber at reasonable prices, while meeting important environmental and food safety objectives.

NCFC endorses the statement by the National Coalition for Food and Agricultural Research of which NCFC is a member, which has set an objective of doubling Federal funding of food, nutrition, agricultural, natural resource, and fiber research, extension and education programs during the next 5 years.

CONSERVATION/EQIP

We strongly support continued funding for the Conservation Reserve Program (CRP), as well as restoring funding for the Environmental Quality Incentives Program (EQIP), as recommended in the Administration's budget. Such programs are necessary to help achieve and maximize water quality and other environmental benefits.

The CRP and EQIP programs in particular are critical to empowering farmers to continue voluntary efforts to sustain the natural resource base and to respond to societal expectations and demands with regard to water quality and protecting our natural resource base.

MEAT INSPECTION/USER FEES

We continue to be opposed to user fees relating to Food Safety and Inspection Service (FSIS) for meat inspection. Such inspection programs provide important public benefits relating to food safety and quality and should continue to be publicly funded.

CONCLUSION

Mr. Chairman, on behalf of NCFC and its members, we want to again thank you for the opportunity to share our views with regard to the fiscal year 2002 agriculture appropriations bill. We also wish to take this opportunity to express our appreciation to you and the members of the Subcommittee for your interest and support of farmer cooperatives and American agriculture.

PREPARED STATEMENT OF THE NATIONAL CORN GROWERS ASSOCIATION

The National Corn Growers Association (NCGA) appreciates the opportunity to provide the Subcommittee with our recommendations for fiscal year 2002 appropriations for key programs administered by the U.S. Department of Agriculture. The NCGA represents 30,000 corn growers in 48 states and the association's mission is to create and increase opportunities for corn growers in a changing world and to enhance corn utilization and profitability.

The NCGA, strongly, urges the Subcommittee to:

—Increase the ARS plant, animal, and microbial genomics programs by $5.0 million;
—Increase funding for the National Plant Germplasm System by $10 million; and
—Maintain $120 million in funding for the Initiative for Future Agriculture and Food Systems.

While many Federal agricultural programs are important to the nation's corn growers, the NCGA believes that the future of the corn industry is written in corn's genetic code and that plant genomics will give us the fundamental information necessary to revolutionize American agriculture. Plant genomics research advances our understanding of the structure, organization and function of plant genomes.

Since 1996, funding for plant genomics has been the number one appropriations issue for the NCGA. The Plant Genome Initiative (PGI), a multi-agency program

Focused on structural and functional genomics, will help scientists, geneticists, and plant breeders identify and utilize genes (from corn and other plants) that control important traits, such as nutritional value, stress tolerance, and resistance to pests. In a recently published report, the Interagency Working Group on Plant Genomes, estimated that $600 million, over three years (fiscal year 2001–2003) was needed for the National PGI. While the NSF will provide a significant level of funding for the PGI, USDA must increase its plant genomics funding, substantially, if

we are to meet the minimum level of need. Further, USDA must begin a concerted effort in animal and microbial genomics.

For the fiscal year 2002 agricultural appropriations bill, the NCGA requests an increase of $5.0 million for plant, animal, microbial genomics at the Agricultural Research Service (ARS). We support the Administration's requested increase of $4.5 million increase for bioinformatics research at ARS and urge the Subcommittee to provide an additional $500,000 for additional ARS genomics efforts. The NCGA, also, urges the Subcommittee to allow full funding to continue for the Initiative for Future Agriculture and Food Systems as a significant portion of the funds are supporting plant, animal, and microbial genomics research.

To take full advantage of the plant genomics revolution, diverse plant germplasm must be available for crop breeders to develop the varieties necessary to meet the changing circumstances and needs of the future. The USDA National Plant Germplasm System (NPGS)—

—Acquires germplasm;
—Develops and documents information on the germplasm;
—Preserves and distributes germplasm upon request; and
—Maintains quarantine facilities for testing imported germplasm.

Funding for the NPGS has declined significantly, in constant dollars, since 1992, while demands on the system have increased. The NSF-funded plant genome research program has increased, tremendously, the amount of genetic stocks for the NPGS to manage. For example, one maize grant will generate, at least, 50,000 new maize genetic stocks, doubling the size of the NPGS maize stock center. Comparable situations will exist for several other economically important crops as well. Without a significant increase in funding, the NPGS will not be able to manage current stocks, much less the increased stocks generated through genomics research. It is critical that these resources remain in the public domain to ensure continued accessibility to all scientists and breeders. The 2 NCGA believes that the NPGS is a fundamental, strategic resource, and urges the Subcommittee to provide a $10 million increase for the NPGS.

Advances in basic plant science that result from a vigorous plant genomics program and a strong, viable National Plant Germplasm System will allow us to create new hybrids and varieties that will—

—Improve human and animal health;
—Reduce medical costs due to more nutritious, healthier, food for individuals;
—Reduce worldwide malnutrition through higher yielding and more nutritious crops;
—Reduce environmental problems for crop and livestock growers;
—Expand plant-based renewable resources for chemicals and energy; and
—Allow growers to get more income from the market and reduce grower reliance on Federal farm programs.

The National Plant Genome Initiative, the National Plant Germplasm System, and the competitive USDA programs that support genomics research are critical to the long-term viability of U.S. agriculture as they will provide our growers with the tools to meet the challenges and demands of the 21st century. The NCGA, strongly, urges Congress to provide a $5 million increase in ARS funding for plant, animal, and microbial genomics research and a $10 million increase for the USDA National Plant Germplasm System.

Thank you for your consideration of our views.

PREPARED STATEMENT OF THE NATIONAL CONGRESS OF AMERICAN INDIANS

INTRODUCTION

My name is Susan Masten, and I am Chair of the Yurok Tribe of Northern California and President of the National Congress of American Indians (NCAI). I am pleased to have the opportunity to present a written statement regarding the President's budget request for fiscal year 2002 Indian programs and services within the Department of Agriculture.

Since the 1970's, the high population growth rate of Indian reservations has put great strains on an already inadequate infrastructure. Education, law enforcement, transportation, health care, jobs, housing, technology, water and sewer systems—each of these basic governmental services all too often falls victim to resources that are spread far too thin. While fiscal year 2001 funding levels for Indian programs certainly made great strides toward meeting the basic programmatic needs of tribes, our work is not yet done. In order to fully support tribal self-government and eco-

nomic self-sufficiency, Congress must not turn back the clock on last year's gains and in fact should consider increases for key programs that serve Indian Country.

Last year, Congress enacted a final fiscal year 2001 budget that included a total of $9.4 billion for critical Indian programs. This total, a $1.1 billion increase over fiscal year 2000, represented the largest increase ever for Indian programs and brought together over a dozen agencies to help address the needs of Indian nations.

The last time the Federal government enacted an increase of a similar scope was in the mid-1970's as part of President Nixon's self-determination policy. Self-determination has been and continues to be the most successful Federal policy toward Indian Nations. Under it, tribal governments have local control over programs and are able to fulfill needs and solve problems more quickly and efficiently than through a "top-down" Federal approach.

For fiscal year 2002, the President has proposed $1.96 trillion in fiscal year 2002 spending, including a four percent increase in discretionary spending over fiscal year 2001. While this increase—which is slightly higher than inflation—seems positive, it is important to note that it is only half the 8.5 percent gain enacted last year. Furthermore, proposed budget for the Department of Interior is four percent less than the fiscal year 2001 enacted level.

The President's "Blueprint for New Beginnings" fails to provide many substantive, agency-level details about the fiscal year 2002 budget request. Until these details become available through the release of more comprehensive agency budgets, it is extremely difficult to gauge the impact of the proposed fiscal year 2002 budget on programs that serve American Indians and Alaska Natives.

I will address the proposed funding levels that are available and to highlight those programs that we believe are critically important to Indian nations. Much of the information and recommendations contained in my testimony was provided by our member tribes and by national and regional Indian organizations, such as the National Indian Education Association, the National Indian Health Board, the National American Indian Housing Council, the Northwest Portland Area Indian Health Board, and others.

DEPARTMENT OF AGRICULTURE

Being the most rural of any minority group, American Indians residing on reservations are for the most part, geographically isolated, resource-limited, and the least likely of any farm group to receive loans from the United States. Of the some 55 million acres of Indian lands, 47 million acres are used for the production of crops, livestock, or both. Those individual operators and farming tribes who produce these resources are in need of capital, more efficient administration of existing Federal programs, and technical assistance. This need extends over all farming tribes even those who may have an abundance of natural resources. In addition, development assistance provided through USDA helps non-farming tribes to develop more sustainable economies.

For fiscal year 2002, the President has proposed cutting USDA funding from its current level of $19.4 billion to $17.9 billion, a 1.6 percent reduction. NCAI is particularly concerned about the proposed elimination of $235 million in rural development assistance. Furthermore, we recommend the following funding levels for Indian-specific programs:

Extension Indian Reservations Program

In fiscal year 2001, $2 million was provided for extension agents on Indian reservations, a slight increase over the fiscal year 2000 enacted level of $1.7 million. Since 1990, the Extension Indian Reservation Program, authorized under the Food, Agriculture, Conservation and Trade Act, has provided services to Indian Country on issues ranging from crop and animal production practices to farm business management. It also has furnished extension agents, employees of the State Cooperative Extension System, who work with tribal advisory committees to develop educational programs in agriculture or agriculture-related youth programs that respond to tribal priorities. NCAI strongly supports an increase to $5 million for fiscal year 2002 in order for the program to hire additional extension agents on large Indian reservations to help Indian Country promote productive and efficient land use.

Rural Development Native American Program

In fiscal year 2001, $24 million was provided for Indian Rural Community Advancement Programs (RCAP). While this funding level was welcome, NCAI further recommends that this funding be allocated as follows: $1 million for Rural Business Opportunity Grants to Tribes; $5 million for Community Facilities Grants for Tribal College Improvements; $16 million for Drinking Water and Waste Disposal Systems for Tribes; and $3 million for Rural Business Enterprise Grants to Tribes.

Food Distribution Program on Indian Reservations

The Food Distribution Program on Indian Reservations (FDPIR) is administered at the Federal level by the Food and Nutrition Service (FNS) in cooperation with 98 tribal organizations and six state agencies. Many Native Americans actually participate in the FDPIR, rather than the Food Stamp Program because of rural isolation and the lack of easy access to food stores.

fiscal year 2001 funding for the FDPIR was $76.5 million, an increase of $1.5 million over the fiscal year 2000 enacted level. Maintaining this increase is crucial in order to provide commodity foods to low-income households on reservations and to Native American families residing in designated areas near reservations.

CONCLUSION

We urge the Congress to fulfill its fiduciary duty to American Indians and Alaska Native people and to preserve the government-to-government relationship, which includes the fulfillment of health, education and welfare needs of all Indian tribes in the United States. This responsibility should never be compromised or diminished because of any political agenda or budget cut scenario. Tribes throughout the nation relinquished their lands as well as their rights to liberty and property, and we ask that the Congress maintain the Federal trust responsibility to Indian Country and continue to assist tribes on the road toward self-sufficiency. Thank you.

PREPARED STATEMENT OF THE NATIONAL FOOD PROCESSORS ASSOCIATION

Mr. Chairman, my name is John Cady, Chairman and CEO of the National Food Processors Association (NFPA), and today I am submitting testimony on behalf of NFPA. NFPA is the nation's largest food trade association representing a $460 billion industry that employs over 1.5 million Americans. With three laboratory centers, NFPA is the leading authority on scientific and public policy issues involving food science and safety for the food industry. For more than 90 years, the food industry has relied on NFPA for government and regulatory affairs representation, scientific research, technical services, education, communications, and crisis management.

NFPA was formed at a time when it was necessary to enhance public confidence in food safety, and we are proud of our contributions to further improve the safety of our nation's food supply. The U.S. food supply is the safest in the world. However, NFPA remains committed to working to make it even better. That is why NFPA advocates oversight and regulation that is appropriate. Our association is particularly supportive of providing an adequate level of funding for the Food and Drug Administration (FDA) and the Department of Agriculture's Food Safety and Inspection Service (FSIS). While several Federal agencies have responsibility for food safety and quality programs, the FDA and FSIS share the primary responsibility for food regulation. NFPA, on behalf of our members, is making an enhanced commitment to focus on increasing the resources and productivity of these authorities.

This year NFPA has launched a long-term effort, along with other leading food trade associations, to seek additional funding for FDA's Center for Food Safety and Applied Nutrition (CFSAN), which in real dollars, has had a steadily declining budget since 1973. While funding for CFSAN has risen by $100 million over the past four years, CFSAN must continue to enhance efficiency and productivity. Only by enhancing efficiency and productivity will the Center be able to stretch resource dollars further to meet the demands in areas such as food safety research, risk-based inspections and premarket reviews, including biotechnology and food additives. NFPA is committed also to adequate resources for the Agriculture Research Service (ARS) at the Department of Agriculture, specifically to fulfill it's mission to generate technical information on providing an adequate supply of food products by practices that maintain a permanent and effective agriculture and to improve the nutrition and well being of the American people.

USER FEES

The Administration's fiscal year 2002 Budget proposes new user fees—more appropriately described as regulatory taxes—that require food companies to pay for the privilege of being regulated. Though NFPA applauds the Administration for not proposing new user fees for FSIS, the fiscal year 2002 request does include $13.4 million in new, unauthorized user fees. This includes $8.1 million for new, unauthorized user fees for import inspections and $5.3 million export certifications. NFPA appreciates that the Committee repeatedly has rejected these proposals in past Administration budget requests, and recommends again that funding of food

safety and regulatory programs should be borne through appropriated funds. The proposed FDA user fees would be collected to provide food companies with certification documents for exporting products. Amounting to a tax on food trade, this would discourage the export of U.S. food and agriculture products at a time of already declining agriculture exports. Proposed user fees on the food industry are hidden taxes whose costs would be borne both by producers and eventually consumers in higher food prices. NFPA does support the Administration's focus on FDA's export certification system, which needs reform to prevent the continuing backlog of document requests. However, establishing a user fee system would simply camouflage the deficiencies of the existing system. Furthermore, funding regulatory programs through taxes raised from the industry would only serve to undermine global public confidence in the independent judgment of FDA. We urge the Committee to reject this user fee proposal.

FOOD AND DRUG ADMINISTRATION'S FOOD REGULATORY PROGRAMS

NFPA supports the requested level of funding for FDA's food regulation activities, but recommends that priority be given to the areas of research, risk assessment, education and surveillance. Such priority setting will ensure that limited resources will be targeted toward reducing risk associated with food borne illness. In addition, we support FDA's infrastructure request for funding to administer the transfer of the CFSAN staff and facilities to College Park, Maryland and to construct a new regional laboratory in Los Angeles, California.

We also urge the Committee to protect funding for science-based food activities at CFSAN. Recent increases to CFSAN's budget have been absorbed by a combination of dedicated funding for regulatory initiatives and staff salary increases and cost-of-living adjustments. This "crowding out" effect appears to have contributed to a slow, but steady, erosion in FDA's ability to preserve its food science base. The continued decline of FDA's scientific base can only imperil FDA's long-term capabilities to respond rapidly and authoritatively to emerging scientific and policy challenges that grow increasingly complex. We urge the Committee to explore with FDA opportunities to support the integrity of CFSAN's scientific capabilities.

BIOTECHNOLOGY

NFPA recognizes the leading role FDA plays in ensuring public acceptance of emerging food technologies including biotechnology. NFPA strongly supports the proposed fiscal year 2002 increase of $1 million to strengthen CFSAN's scientific capabilities and requests the Committee provide an even higher level of funding for this important function. In January, FDA released a draft guidance on labeling for food derived from biotechnology and a proposed rule on premarket notification. FDA should expeditiously publish a final version of the guidance and rule to ensure the review process is thorough, rigorous, and scientifically based.

EXTENDING THE FOOD SAFETY INITIATIVE

NFPA appreciates the continued emphasis that Congress has placed on food safety through its funding for the Food Safety Initiative for FDA, USDA, and the Centers for Disease Control and Prevention (CDC) in fiscal years fiscal year 1998 through 2001. The fiscal year 2002 request represents the new Administration's commitment to enhance efforts to prevent the spread of mad cow disease to the U.S., and to expand successful food safety activities. We endorse most aspects of the Administration's request to increase funding to reduce the prevalence of pathogens, and expand coverage to pesticides and chemical contaminants, particularly in those areas that emphasize research, risk assessment, education and surveillance. Our concern remains that FDA use resources efficiently and effectively. FDA should fully implement on-going monitoring and risk evaluations, and expand current laboratory capabilities in order to increase timely risk assessments and scientific analysis before premature regulatory steps are taken. We request that the Committee remain vigilant in its oversight to ensure that appropriated funds for food safety programs are deployed in a manner commensurate with relative food safety risks.

FURTHER REFORMS NEEDED AT FOOD SAFETY AND INSPECTION SERVICE

NFPA supports adequate resources for the FSIS, but is concerned with reports of personnel management practices that have led to inspector shortages and resulting plant slowdowns or work stoppages in meat and poultry establishments. We urge the Committee to review this problem to ensure the availability of inspection personnel either through additional resources or management reforms, including alternative inspection procedures.

NFPA supports the transition to a HACCP-based inspection system, but notes that FSIS has not fulfilled its past pledges to remove inspection regulations that are inconsistent with HACCP. We urge the Committee to ensure that unnecessary layers of regulation are promptly removed to speed HACCP implementation.

For example, NFPA is disappointed that FSIS reported to Congress in March 2001 that it would not follow through with an announced plan to move toward daily, unscheduled processing inspection in 2001. FSIS estimated that this would save an estimated $19 million. NFPA agreed that the FSIS plan put forward in the fiscal year 2001 budget would free up appropriated funds to address inspection shortages and other significant food safety risks. NFPA believes unscheduled inspection in processing establishments could yield even greater benefits by allocating resources based on a public health risk allocation of resources. We urge the Committee to direct FSIS to explore methods of further maximizing this flexible approach.

NFPA also recognizes the lead role that FSIS plays in overseeing the work of the U.S. Manager for Codex Alimentarius. NFPA strongly supports the fiscal year 2002 requested increase for FSIS Codex activities, and recommends that the Committee provide an even higher level of funding for this important function. Codex remains a critically important forum for ensuring U.S. leadership in international trade and food safety activities.

ADEQUATE FUNDING NEEDED FOR FOOD RESEARCH

The National Nutrition Monitoring and Related Research Act of 1990 directed the USDA's Agriculture Research Service to coordinate the Continuing Survey for Food Intake by Individuals (CSFII) with the National Health and Nutrition Examination Survey (NHANES) conducted by the Department of Health and Human Services (DHHS). Though USDA is working diligently with DHHS to coordinate the two survey systems and methodology, USDA has failed to conduct the CSFII in 2000 and has no plans to conduct the survey in 2001. Congress has requested USDA report on how the Department plans to integrate the two surveys without losing the vital data collected by both programs. The recently released USDA report failed to appropriately address the concerns of the Congress as the language of the report appears to indicate plans to rely only on the data collected through NHANES. The CSFII is at the core of America's national nutrition monitoring system and is vital to understanding the growing problem of childhood obesity, conducting food safety risk assessments, refining objectives of Federal food assistance programs, and monitoring the nutritional health of various at-risk populations. NFPA urges the Committee to direct the ARS to continue to conduct the CSFII as the Service develops a coordinated plan with DHHS for both surveys.

The ARS also performs the essential function of compiling and communicating agriculture and food industry data and information on the evaluations and decisions that impact the future capacity of production agriculture in the U.S., made by the Environmental Protection Agency. NFPA recommends the Committee increase the budget allocation for continuing implementation of the Food Quality Protection Act to ensure the Office of Pest Management Policy at ARS has adequate funding to support tolerance reviews and determinations of the cumulative risk assessments needed to ensure a safe food supply.

CONCLUSION

In conclusion, NFPA is grateful for the important funding oversight that the Committee provides to ensure the integrity of U.S. food safety regulation. The food industry endeavors to produce the safest and highest quality food products in the world. As a result, NFPA understands that adequate funding for our nation's food safety regulators through direct appropriations and enhanced productivity by the agency is fundamental to good public health, and to maintaining the confidence of consumers in the safety of the food supply. NFPA appreciates the opportunity to submit testimony on the President's fiscal year 2002 food safety budget request.

PREPARED STATEMENT OF THE NATIONAL ORGANIZATION FOR RARE DISORDERS, INC.

Mr. Chairman and members of the Senate Appropriations Subcommittee on Agriculture, Rural Development and Related Agencies, the National Organization for Rare Disorders (NORD), wishes to express its views regarding appropriations for the Orphan Products Research Grant Program administered by the Office of Orphan Product Development (OOPD) at the Food and Drug Administration (FDA).

NORD is a federation of approximately 140 voluntary health organizations and over 70,000 individual patients, healthcare providers and clinical researchers dedi-

cated to helping the 25 million people in the United States suffering with rare "orphan" diseases. An orphan disease is defined by statute as any disease or condition impacting less than 200,000 Americans.[1] It makes no difference whether you are male or female, rich or poor, young or old, white, African-American, Latino, Asian or American Indian. These diseases affect everyone.

On behalf of the rare disease community, we are respectfully requesting that just one dollar for each and every person suffering with a rare disease be appropriated by this Subcommittee for the FDA'S Orphan Products Research Grant Program. Twenty-five million would represent a minimal investment by the Federal government in the development of lifesaving treatments that the private sector is not interested in. But the return on investment could be phenomenal if only a few new orphan drugs or devices are developed to reduce the burden of disease and death for thousands of patients with rare disorders.

As you can imagine, appropriating just one dollar for each rare disease patient in America, rather than the current funding level of a mere fifty cents per patient, is a win-win situation. Patients win when their symptoms are alleviated or cured. Families win when their loved ones no longer suffer. Society, as a whole, wins when patients are able to return to school or work to become productive tax-paying citizens. Pharmaceutical and biotechnology companies win when they are able to market new therapeutic products when part of the development costs are subsidized. The scientific community wins when the knowledge they gain can be applied to more prevalent diseases. And, finally, the government wins when the drain on healthcare dollars is minimized.

FDA ORPHAN PRODUCTS RESEARCH GRANTS PROGRAM

Congress created the research grants program in fiscal year 1983 to provide funding for pivotal clinical trials on new orphan drugs, medical devices, and medical foods for rare diseases. The funds have been made available to academic scientists and small companies. By definition, "orphan products" are treatments for rare conditions that have small potential markets and thus are not attractive to the commercial sector. Such treatments were not being developed for "orphan" diseases by the private sector until the Orphan Drug Act was enacted in 1983.

Since then, the FDA has approved over 218 orphan drugs for marketing, and more than 800 additional drugs are in the research pipeline. Of those products approved for marketing, 27 (23 drugs and 4 medical devices) were developed with funding from the orphan product grants. These 27 treatments would not be on the American market today saving the lives of thousands of Americans, enabling them to return to school or work, if Congress had not created this small but critically important pool of research funds.

Most of FDA's Orphan Products Research Grants support small clinical trials at academic institutions throughout the nation to develop the preliminary evidence that is necessary to attract commercial sponsors. It is the quintessential model for a successful government/industry partnership. There is no more appropriate program deserving of Federal support because it fills a major gap between academic research and the private sector, and it creates lifesaving products that are needed throughout the world.

For example, children with Severe Combined Immune Deficiency (the "Bubble Boy Disease") no longer have to live in a plastic bubble because now their immune systems can fight off germs, thanks to an orphan drug developed with these grant funds. Children with urea cycle disorders no longer slip into a coma and die because an orphan drug enables their bodies to eliminate toxic levels of ammonia. Babies born without ribs no longer suffocate in infancy because an artificial rib (an orphan medical device) is being developed now with funds from the Orphan Products Research Grants Program that allows the children's lungs to expand and breathe. Cystic fibrosis, Crohn's disease, and multiple sclerosis drugs are on the market today only because these grants supported some of their research.

Unfortunately, there are many diseases and conditions that are too rare to attract private investment because the commercial sector is simply not interested in developing treatments for small markets. The investment necessary for research and development of new drugs and devices is too large in comparison to the size of the potential market for a rare disease. Case in point, there are only about 125 patients in the United States suffering with an orphan disease called fibrodysplasia ossificans progressiva (FOP), Only 15,000 with Huntington's disease or Duchenne Muscular Dystrophy, and only 30,000 with cystic fibrosis. Many of the genetic diseases each impact no more than 40,000 Americans. Whereas, drugs for cancer, ar-

[1] Orphan Drug Act of 1983.

thritis or hypertension, for example, each affect many millions of Americans, representing several billion dollars in potential sales each year.

Given the fact that the Orphan Products Research Grant Program is attracting greater attention, more researchers are eager to participate each year. Therefore, it is very unfortunate that the annual appropriation for this program cannot begin to cover all of the meritorious grant requests for promising research projects. Today, about 100 grant applications are received annually, but many scientifically important applications are never funded simply because the appropriation is too small to meet the needs of the program. In fact, the appropriation now is less than it was in fiscal year 1995, and has remained between $10 to $12 million for many years.

Mr. Chairman, if the government does not fund this research, who will? The private sector is simply not interested in rare diseases. If this Subcommittee does not meet the need of this unique sector of scientific research, people with rare diseases will be further victimized by the injustice of the supply and demand marketplace. For these diseases, no company wants to supply a treatment when the market demand is small.

CONCLUSION

In 1989 the HHS National Commission on Orphan Diseases estimated that only 30 percent of the 25 million patients suffering with rare diseases receive a diagnosis in three to five years after the onset of symptoms. That works out to about 7.5 million patients who are shuffled from specialist to specialist, year after year. Fifteen percent, or 3.7 million people, wait seven years or more. And even after diagnosis, they can only hope that someone, somewhere, will conduct research to develop a treatment for their disease.

And so, on behalf of those medically disenfranchised Americans and their families, we respectfully request that the members of this Subcommittee appropriate no less than $25 million dollars to the FDA Orphan Products Research Grant Program for fiscal year 2002. We are relying on the members of this Subcommittee to fill the void between government and the private sector, and propel these treatments forward from academic laboratories to our local pharmacies. Ultimately, your compassion and insight will put new orphan drugs and devices into the waiting hands of critically ill patients. If you don't provide adequate resources for the Orphan Products Research Grants Program, unfortunately no one else will.

Thank you.

PREPARED STATEMENT OF THE NATIONAL POTATO COUNCIL

My name is Todd Michael. I am a potato farmer from Ohio and current Vice President, Legislative/Government Affairs for the National Potato Council (NPC). On behalf of the NPC, we thank you for your attention to the needs of our potato growers.

The NPC is the only trade association representing commercial growers in 50 states. Our growers produce both seed potatoes and potatoes for consumption in a variety of forms. Annual production in 2000 was 500,000,000 cwt. with a farm value of $2,800,000,000. Total value is substantially increased through processing. The potato crop clearly has a positive impact on the U.S. economy.

The potato is the most popular of all vegetables grown and consumed in the United States and one of the most popular in the world. Annual per capita consumption was 147 pounds in 2000 up from 107 pounds in 1962 and is increasing due to the advent of new products and heightened public awareness of the potato's excellent nutritional value. Potatoes are considered a stable consumer commodity and an integral, delicious component of the American diet.

The National Potato Council's fiscal year 2002 appropriations priorities are as follows:

Cooperative Research Education and Extension Service (CSREES)

Potato Special Grant Program.—The NPC urges that $1.6 million be appropriated for the special research grant program. The Congress increased the level in fiscal year 2001 by $150,000 to $1.45 million and should the Administration delete these funds from its budget we urge that Congress restore the fiscal year 2001 appropriated level as well as increase the funding to $1.6 million. The program had once been at $1.4 million but had been reduced due to various across the board cuts. This has been a highly successful program and the number of funding requests is increasing.

The NPC also urges that the Congress, once again, include Committee report language as follows: "*Potato research.*—The Committee expects the Department to en-

sure that funds provided to CSREES for potato research are utilized for varietal development testing. Further, these funds are to be awarded competitively after review by the Potato Industry Working Group."

Agricultural Research Service (ARS)

The NPC urges that the Congress once again add Committee report language urging the ARS to work with the NPC on how overall research funds can best be utilized for grower priorities.

Should the Administration's fiscal year 2002 budget delete the $250,000 for Prosser, Washington and the $300,000 for the Northeast Plant, Soil and Water Laboratory at Onono, Maine, added by the Congress in fiscal year 2001, the NPC urges that the Congress restore these funds.

Grand Forks and East Grand Forks

Appropriate $350,000 for a new scientist to be located at the Potato Research worksite in East Grand Forks, Minnesota. The scientist would address the effects of postharvest storage and treatments on potato market quality and value added traits. Since over 70 percent of the U.S. fall potato crop is placed into storage for year around sale, this research will benefit potato growers throughout the country.

Fort Collins, Colorado

Appropriate $300,000 for the Soil, Plant, and Nutrient Research Program at Fort Collins to conduct research to enhance water and soil quality with precision conservation farming.

Aberdeen, Idaho

Appropriate $150,000 for additional work by the potato breeder at Aberdeen. Since an estimated 96 percent of the current budget is committed to salaries and fixed costs, this additional funding is needed to provide for the development of a strong molecular biology program component to speed the incorporation of disease resistance from wild potato species into the cultivated potato.

Appropriate $400,000 for planning and design for the construction of an advanced molecular genetics laboratory at the National Small Grains Germplasm Research Facility. This facility at Aberdeen is needed to assure the continuation of advanced molecular genetics research for potatoes and small grains. It is estimated that total construction costs will be $3.9 million.

Albany, California

ARS has funded Dr. William Belknap in Albany, with the support of the NPC, to develop genetic constructs for potato transformation that will be publicly available without patent restrictions on their use. His laboratory should serve as a source of reagents for use by ARS scientists and others who work in the public sector. Estimated cost of providing this service is an additional $100,000 in fiscal year 2002 for Dr. Belknap's base budget to carry out the potato research.

Beltsville, Maryland

Improving the nutritional value of potatoes is a high priority of the NPC. Research should also be initiated at the Beltsville Vegetable Laboratory that combines traditional breeding and plant biotechnology to increase the nutritional value of the potato and add value to the crop. Estimated cost would be $300,000 for fiscal year 2002.

National Agricultural Statistics Service (MASS)

The NPC urges that the Congress appropriate $125,000 to the National Agricultural Statistics Service to conduct a Potato Objective Yield Size and Grade Survey. It is important that potato growers not only have objective yield surveys carried out by NASS in the major potato producing states, but also have a size and grade survey completed that estimates the marketable quality of those potatoes.

Plant Protection and Quarantine Service (APHIS–USDA)

The NPC urges that the Congress appropriate $610,000 for the Golden Nematode Quarantine Program. The National Potato Council also supports the appropriation of $100 million for the Agriculture Quarantine Inspection (AQI) user fee account; $52 million for the AQI appropriated fund account and $45 million for pest detection. As new trade agreements are negotiated, the agency must have the necessary staff and technology to deal with the threat of pests and diseases.

FQPA Funding

The NPC also supports the appropriation of $106 million for USDA to meet the data requirements of the new Food Quality Protection Act (FQPA). This would in-

clude $2.6 million for the USDA Office of Pest Management. The NPC has devoted considerable time and resources to the evaluation of pesticides required by the FQPA. However, it is essential that the USDA have adequate resources to assist in this effort. Otherwise, given the tight time frame for these assessments, the EPA will rely on default assumptions in the absence of actual data.

PREPARED STATEMENT OF THE PARTNERS FOR RURAL AMERICA

Mr. Chairman and members of the Subcommittee, I am Bob Swanson. I am the Executive Director of the Washington State Association of Community Action Agencies and serve as Chair of the Washington State Rural Development Council. I also serve as Chair of the Board of Directors of Partners for Rural America (PRA), which is the national service organization of the America's 40 state rural development councils (SRDCs).

THE CONTRIBUTIONS OF THE NRDP AND SRDCS TO RURAL AMERICA

SRDCs are unique entities. They do not administer programs or make grants. Although they influence the making of policies that affect rural America, they, themselves, do not make policy.

SRDCs are composed of officials of Federal, state, local, and tribal governments and representatives of the private and non-profit sectors. These SRDCs promote:

—Greater coordination among Federal agencies in the development and delivery of Federal programs that affect rural areas;
—Greater collaboration between the Federal government and others working for an improved future for rural America;
—Leveraging of limited financial resources that are available to rural communities;
—Identification and elimination of program and regulatory impediments; and
—Development of local solutions by local people to address the challenges and opportunities facing rural communities.

OUR FISCAL YEAR 2002 APPROPRIATIONS REQUEST

On behalf of the NRDP and SRDCs, we respectfully request that the Subcommittee include an appropriation of $7.542 million in the fiscal year 2002 appropriations bill for the US Department of Agriculture (USDA) to support the operations and activities of the Partnership and SRDCs.

Of this amount:

—Slightly more than 90 percent ($6,820,000) would provide direct support for SRDCs.
  —80.22 percent of the request ($6,050,000) would flow directly to the SRDCs in the form of cooperative agreements or grants or both.
  —10.21 percent of the request ($475,000) would underwrite direct services to the SRDCs.
—Just under 8 percent ($600,000) would underwrite program support for the SRDCs.
—And 1.62 percent ($122,000) would cover administrative costs.

Of the funds that go to SRDCs, roughly two-thirds is used for personnel costs, with the remainder used to underwrite operating costs. Each SRDC is typically a one-or-two person operation, although a few Councils have larger staffs. SRDCs are required to provide a 33 percent non-federal match (cash or in-kind), although some Councils have been able to leverage the Federal funds they receive by a factor of two or three. During the last five years, the match provided by SRDCs has exceeded $10.5 million.

Because the issues on which the NRDP and SRDCs focus extend well beyond the responsibilities of the USDA/Rural Development Mission Area (USDA/RD) and—indeed, beyond the responsibilities of USDA—it is our position that support for the Partnership should come from funds generally available to USDA. Ultimately, we would support a strategy which provides support for the Partnership from across the Federal government, but—until a system can be devised that is stable and predictable—we must rely on USDA for core support for the NRDP and SRDCs. It is our strong desire that any funds provided to the NRDP and SRDCs through the Agricultural Appropriations Bill be "new money;" that is, funds that are added to the Appropriations Bill rather than money that is transferred from other programs within USDA, many of which are already oversubscribed.

PAST FEDERAL SUPPORT FOR THE NRDP AND SRDCS

This request for an fiscal year 2002 appropriation marks the first time Appropriators have been asked to directly support the Partnership and SRDCs. This request is being made because the past system for funding the NRDP and SRDCs has been inadequate.

From its beginning in the early 1990s, the Partnership has never had a dedicated, predictable source of funding. Instead, it has depended upon voluntary contributions of discretionary funds from USDA and the Federal Departments of Labor, Transportation (DOT), Veterans Affairs, and Health & Human Services. Without the financial contributions and—more importantly—the dedicated participation of these agencies, the Partnership would never have achieved the many successes it has.

Although we have decided to seek core funding for the Partnership through the Agricultural Appropriations Bill, it is our sincere hope the non-USDA agencies that have worked with us is the past will remain engaged in the Partnership and that they will be joined by many other Federal agencies. Participation by the greatest possible number of Federal agencies in the Partnership is essential in order to facilitate broad-based interagency collaboration. Providing core funding from the Agricultural Appropriations Bill will greatly increase administrative and logistical convenience, as well as significantly increasing the predictability of funding for the SRDCs. However, continued financial support from agencies beyond USDA can help to strengthen and expand the Partnership.

Since fiscal year 1993, revenue available from these five agencies has decreased precipitously while the program's obligations have increased. In fiscal year 1993, when there were 26 SRDCs, program revenue totaled $5.250 million; in fiscal year 2000, when there were 37 SRDCs, program revenue had decreased to $3.193 million. Support from USDA/RD decreased from a high of $4 million in fiscal year 1993 to just under $2 million in fiscal year 2000. Language in the fiscal year 1999, fiscal year 2000, and fiscal year 2001 DOT appropriations bills limiting the use of Federal Highway Administration funds resulted in DOT's contribution to the Partnership being reduced from $500,000 annually to $50,000.

SRDCs became aware of a likely funding shortfall in fiscal year 2001 funding for the Partnership in the spring of 2000. Despite strong support for the Partnership from many members of Congress, including members of this Subcommittee, SRDCs' efforts to win inclusion of funds for the Partnership in the fiscal year 2001 Agricultural Appropriations Bill were initiated too late to be successful. During Senate consideration of the Conference Committee Report on the fiscal year 2001 Agricultural Appropriations Bill, a number of Senators entered into a colloquy with Chairman Cochran in which the Chairman said, "I want to assure the gentlemen that it is the Committee's belief that the Secretary of Agriculture should continue to provide funding from discretionary amounts for this program." (Congressional Record, October 18, 2000, pages S10680 and S10681.) Fortunately, USDA Secretary Ann Veneman has allocated recently additional funds to the Partnership to carry it through the end of fiscal year 2001.

It is important that we be extremely clear why it was necessary for Secretary Veneman to allocate additional funds to the Partnership for fiscal year 2001. As noted above, we became aware of a likely fiscal year 2001 funding shortfall in the spring of 2000. Funds available at the beginning of fiscal year 2001 were adequate to only carry the Partnership through the end of the second quarter of fiscal year 2001. The previous Administration neither provided additional funds to the Partnership nor did it put forward a plan to deal with the funding shortfall. Had Secretary Veneman not allocated additional funds to the Partnership, Federal financial support to SRDCs would have ended on March 31, 2001, thereby threatening the financial and operational viability of most SRDCs.

ADMINISTRATIVE SUPPORT FROM USDA

From the beginning of the Partnership, USDA has provided administrative support for the NRDP and SRDCs through the National Partnership Office (NPO), an agency located within USDA/RD and now attached to the Office of Community Development. NPO staff salaries and general administrative expenses are paid by USDA/RD and are not included in this request.

During the NPO's period of greatest staffing (when there were 36 SRDCs), 7.5 FTEs were assigned to it. Currently, 4.5 FTEs are assigned to the NPO. We strongly believe that this level of staffing is inadequate to support this 40-state program and to provide appropriate oversight of SRDCs' operations on behalf of the Federal government. Accordingly, we urge that the staffing allocation for the NPO be restored to a minimum of 9 FTEs.

HISTORY OF THE NRDP AND SRDCS

The basis of the NRDP and SRDCs can be found in the Rural Development Policy Act of 1980 (94 Stat. 1171), which called on the USDA Secretary to:

". . . provide leadership within the executive branch for, and shall assume responsibility for coordinating, a nationwide rural development program using the services of executive branch departments and agencies, including, but not limited to, the agencies bureaus, offices, and services of the Department of Agriculture, in coordination with rural development programs of State and local governments."

". . . conduct a systematic review of Federal programs affecting rural areas to (A) determine whether such areas are benefiting from such programs in an equitable proportion to the benefits received by urban areas and (B) identify any factors that may restrict accessibility to such programs in rural areas or limit participation in such programs."

". . . develop a process through which multi-state, State, substate, and local rural development needs, goals, objectives, plans, and recommendations can be received and assessed on a continuing basis."

". . . undertake cooperative efforts with other Federal departments and agencies to improve the coordination and effectiveness of Federal programs, services, and actions affecting rural areas."

The actual establishment of SRDCs was called for in the January 1990 report of the White House Economic Policy Council Working Group on Rural Development, Rural Economic Development for the 90s: A Presidential Initiative. The Presidential Initiative called for SRDCs to fill four principal missions:

—To serve as the coordinating vehicle for delivery of Federal rural development programs;
—To identify, assess, and address current local rural development needs;
—To serve as the focal point for localizing and implementing Federal rural development initiatives; and
—To provide personalized leadership and assistance to local community leaders desiring Federal rural development assistance.

Eight states were chosen to host pilot SRDCs. With the success of these initial SRDCs, additional states were added to the program to the point where SRDCs operate in 40 states today. The value of SRDCs was recognized in the 1992 report of the President's Council on Rural America. Members of the Commission "urge[d] that continuing support be given to the creation and maintenance of State Rural Development Councils in all states as a means of promoting cooperation between the Federal and state levels of government, local governments, and the private sector."

The 1996 Farm Bill also recognized the contribution the NRDP and SRDCs could make to rural America and, as a result, laid out specific expectations and responsibilities for the Partnership.

As a result of a March 8, 2000, hearing on the structure and operations of the NRDP and SRDCs before the Senate Subcommittee on Agriculture, Nutrition, and Forestry, Senators Larry Craig and Kent Conrad introduced legislation to formally recognize the Partnership and to authorize it to receive appropriations (106th Congress, S. 3175, the National Rural Development Partnership Act). Twenty-eight Senators joined as co-sponsors of the bill, with co-sponsors equally divided between the two political parties. This legislation will soon be reintroduced in the Senate and will also be introduced in the House of Representatives.

The enactment of the National Rural Development Partnership Act will represent an important milestone for the NRDP and SRDCs. During the last decade, SRDCs have made important contributions to their states as they have evolved. Although they typically do not administer programs or promulgate regulations, SRDCs' roles as facilitators and coordinators have proven invaluable to the communities they have served. Hopefully, a renewed focus on rural development policy and program coordination by Congress, the Bush Administration, and rural development practioners will lead to advances toward the goals set forth in the Rural Development Policy Act of 1980 and the 1990 Presidential Initiative.

PREPARED STATEMENT OF THE NATIONAL RURAL HOUSING COALITION

Mr. Chairman and members of the Senate Subcommittee on Agriculture, my name is Robert Rapoza and I wish to testify on behalf of the National Rural Housing Coalition.

I wish thank you for the Subcommittee's support of the Rural Development programs of the United States Department of Agriculture and to urge you to support an increase in its budget for fiscal year 2002.

As you may know, the National Rural Housing Coalition (the Coalition) has been a national voice for rural low-income housing and community development programs since 1969. Through direct advocacy and policy research, the Coalition has worked with Congress and the Department of Agriculture to design new programs and improve existing programs serving the rural poor. The Coalition also promotes a nonprofit delivery system for these programs, encouraging support for rural community assistance programs, farm labor housing grants, self-help housing grants, and rural capacity building funding.

The Coalition is comprised of approximately 300 members nationwide. We hope to work with you to assure that the voices of rural America are heard and its needs met. Our concerns are focused on rural housing and rural water and sewer systems.

THE NEED FOR AFFORDABLE RURAL HOUSING

A disproportionate amount of the nation's substandard housing is in rural areas. Rural households are poorer than urban households, pay more of their income for housing that their urban counterparts, and are less likely to receive government-assisted mortgages. They also have limited access to mortgage credit and the secondary mortgage market, making them prime targets for predatory lending. Rural America needs programs which focus on the issues facing it. The Rural Housing Service of Rural Development provides many of these needed programs.

Homeownership is the principal form of housing in rural America. However, there are a number of obstacles to improving homeownership in rural areas including high rates of poverty and poor quality of housing. According to a 1999 Economic Research Service report, the poverty rate in rural America was 15.9 percent, compared to 13.2 percent in urban areas. Minorities in rural areas have much higher rates of poverty with an average of 34.1 percent compared to urban minorities at 28.1 percent. More than 1.6 million low-income rural households live in moderately to severely inadequate housing. These are units without hot or cold piped water, and/or have leaking roofs, walls, rodent problems, inadequate heating systems, and peeling paint, often lead-based.

Rural residents also have limited access to mortgage credit. The consolidation of the banking industry that accelerated throughout the 1990s has had a significant impact on rural communities. Mergers among lending institutions have replaced local community lenders with large centralized institutions located in urban areas. Aside from shifting the locus of loan-making, this has resulted in the diminishment of a competitive environment which, in the past, encouraged rural lenders to offer terms and conditions that were attractive to borrowers.

Because of the gap left by traditional lenders, rural households are often prime targets for predatory lenders. Predatory lending practices include excessive fees, prepayment penalties, and loan flipping into high cost subprime loans. Participants told about their borrowers' being convinced to convert their mortgages to high cost subprime loans, unaware of the higher interest rates. Even RHS borrowers paying a one percent interest rate were approached and convinced to switch.

Renters in rural areas also live in difficult situations. Thirty-three percent of rural renters are cost-burdened, paying more than 30 percent of their income for housing costs. Almost one million rural renter households suffer from multiple housing problems, 60 percent of whom pay more than 70 percent of their income for housing.

USDA'S RURAL HOUSING SERVICE

USDA's Section 502 single family direct loan program and Section 515 rural rental housing program address many of these issues.

Section 502 single family direct loan program

To qualify for the direct loan program, borrowers must have very low or low incomes but be able to afford mortgage payments. Also, applicants must be unable to obtain credit elsewhere, yet have reasonable credit histories. The average income of households assisted under Section 502 is $18,500. About nine percent of households have annual incomes of less than $10,000. Since its inception, Section 502 has provided loans to almost two million families.

Section 515 rental housing program

To qualify for the rental housing program, tenants must have low or very low incomes. Over more than 30 years, Section 515 has helped to produce over 500,000 homes. Under Section 515, USDA makes direct loans to non-profit and for-profit developers to build rural rental housing. The average tenant income is just over

$7,500, approximately 26 percent of median, and more than half of tenants are elderly, disabled, or handicapped.

Despite these conditions, Federal rural housing has received severe cuts in recent years. The USDA's Section 502 single family direct loan program, which funded 132,000 units in 1976, has dropped its production by 89 percent to fewer than 15,600 units. Spending for Section 515 rental subsidized housing has been cut by 73 percent since 1994. And rural rental housing unit production by the Federal government has been reduced by 88 percent since 1990.

With these dramatic reductions and new opportunities presented by a good economy for building higher end housing, the private sector delivery system is no longer dominant as it was when funding levels were higher, and in many rural communities does not exist. In some rural areas, non-profits have picked up the slack and pursued a multiple funding strategy. Skilled local organizations meld Federal, state, local and private resources together to provide affordable financing packages to low-income families. But there is not a dedicated source of Federal support to promote a non-profit delivery system for rural housing.

As one way to improve its programs, USDA has expanded its cooperation with non-profit housing and community development organizations. Two successful programs are Mutual and Self-Help Housing and the Rural Home Loan Partnership.

Under Mutual and Self-Help Housing, with the assistance of local housing agencies, groups of families eligible for Section 502 loans perform approximately 65 percent of the construction labor on each other's homes under qualified supervision. This program, which has received growing support because of its proven model, has existed since 1961. The average number of homes built each year over the past 3 years has been approximately 1,500.

The Rural Home Loan Partnership is a leveraged loan program. USDA provides a set-aside of Section 502 funds which are distributed to local partnerships of organizations. The Rural Home Loan Partnership has partnered with 177 non-profits and developed and financed close to 1,350 homes.

Section 514 loan and Section 516 grant farm labor housing programs

Two additional rental housing programs address the needs of farm laborers. Migrant and seasonal farmworkers are some of the nation's most poorly housed populations. The last documented national study indicated a shortage of some 800,000 units of affordable housing for farmworkers.

Farmworker households are also some of the least assisted households in the nation. Some 52 percent of farmworker households' incomes are below the poverty threshold, four times the national household poverty rate, and 75 percent of migrant farmworkers have incomes below the poverty line. Yet little more than 20 percent of farmworker households receive public assistance; most commonly food stamps, rarely public or subsidized housing.

There are only two Federal housing programs that specifically target farmworkers and their housing needs: Sections 514 and 516 of the Housing Act of 1949 (as amended). Borrowers and grantees under Rural Housing Service Sections 514 and 516 receive financing to develop housing for farmworkers. Section 514 authorizes the Rural Housing Service to make loans with terms of up to 33 years and interest rates as low as one percent. Section 516 authorizes RHS to provide grant funding when the applicant will provide at least 10 percent of the total development cost from its own resources or through a 514 loan.

Non-profit housing organizations and public bodies use the loan and grant funds, along with RHS rural rental assistance, to provide units affordable to eligible farmworkers. These funds are used to plan and develop housing and related facilities for migrant and seasonal farmworkers. Current funding for Sections 514/516 totals $34 million in program authority. This amount provides about 700 units of housing. The waiting list of applications for Section 514/516 is two to three times the appropriated level. USDA limits applications as there is little prospect of funding all the demand for assistance.

THE NEED FOR RURAL WATER AND SEWER SYSTEMS

Hundreds of rural communities nationwide do not have access to clean drinking water and safe waste disposal systems. A 1995 USDA needs assessment of rural areas showed that more than one million households had no indoor plumbing, and 2.4 million households had critical drinking water needs. In its 1997 Drinking Water Infrastructure Needs Survey, the Environmental Protection Agency estimated that over the next 20 years, water systems serving communities of less than 10,000 people will require $37.2 billion in funding for water systems improvements and upgrades. And regarding wastewater, a 1996 EPA Survey demonstrated that small communities with up to 10,000 residents will need 21,000 wastewater treatment fa-

cilities by 2016 at a cost of approximately $14 billion. According to EPA's numbers, approximately $51.2 billion will be needed to address the basic water and wastewater needs of small communities.

Many projects that RUS funds are under consent order from the state EPA office for immediate action. The problems that the agency deals with range from communities and systems that are out of compliance with health and pollution standards, to communities without sewer systems where raw sewage runs in ditches after a heavy rainfall. Because so much time and money are spent on critical needs, the state offices spend less time on prevention. The programs and communities do not have enough resources to address issues before they become larger problems.

The issue of affordability moves to the forefront with waste disposal systems, which are generally more expensive than water systems. Waste systems naturally succeed water systems—with central water comes indoor plumbing, washing machines, dishwashers, etc., all of which eventually require an efficient wastewater disposal system. Low-income communities often already pay as much as they can afford for water service alone and are unable to manage the combined user fees for water and waste. In some extreme situations, some households are being forced out of homeownership because they cannot afford rising user costs.

As I mentioned earlier, rural communities have limited access to much-needed debt and equity capital, and small water and wastewater systems lack the economies of scale needed to reduce costs on their own. In order for communities to cut back on project costs and have affordable rates, operation and maintenance are typically underestimated in the budgets for many new systems. This often results in limited or no capital improvement accounts for future upgrades and expansions needed for community development including stabilization of local small business, affordable housing development, and other needed industrial development.

USDA'S RURAL UTILITIES SERVICE

USDA's Rural Utilities Service (RUS) is the primary Federal force in rural water and waste development, providing loans and grants to low-income communities in rural areas. The agency assists low-income rural communities that would not otherwise be able to afford such services. Approximately one-fifth of the communities served live below the national poverty line.

In providing these important services, the program also protects public health and promotes community stabilization and development. Aging municipal sewage systems alone are responsible for 40,000 overflows of raw sewage each year. The overflows cause health hazards including gastrointestinal problems and nausea, as well as long-term damage to the environment. Businesses and industries are unable or reluctant to locate in areas without functioning water and sewer systems. But with the assistance of RUS, communities are able to have the services they need so that their health and economies may benefit.

Although the need for RUS services continues, the level of available funds has decreased annually due to decreasing appropriations and increasing interest rates. In fiscal year 1995, $1.35 billion was obligated by the Federal program to the states. Since that time, due to decreasing appropriations and increasing interest rates, the obligations have decreased. Fiscal year 2000 funding, at $1.24 billion—a decrease of over $100 million—was only 92 percent of its fiscal year 1995 level.

Through Federal and state initiatives, RUS is working to confront the challenges faced by rural communities. With increasingly restricted time and money, state offices are using other resources such as leveraged funds and technical assistance from the Rural Community Assistance Program (RCAP). Funds are being leveraged through HUD's Community Development Block Grant program and the EPA's State Revolving Loan Funds, as well as some private lenders. Through the RCAP technical assistance program, more than 4,000 communities in 49 states have received assistance to identify solutions to water problems, improve and protect water quality, and construct and operate facilities.

Mr. Chairman and members of the Committee, we look to you for continued support of the efforts of Rural Development. These programs are vital to the survival of our small communities nationwide. They address the most basic needs of affordable housing and clean water that still exist all over the country. Because of the overwhelming need, we wish to submit the following proposals for increases to Rural Development funding:

RURAL HOUSING AND COMMUNITY DEVELOPMENT APPROPRIATIONS—FISCAL YEAR 2001 FINAL AND FISCAL 2002 PROPOSED

[In millions of dollars]

Program	Fiscal year 2001 final	Fiscal year 2002 Proposed
USDA Programs:		
502 direct	1,100	1,700
502 guarantee	3,700	3,700
504 grants	30	50
504 loans	32.39	50
514 loans	32	100
516 grants	15	50
515 loans	114.3	250
521 rental assistance	680	[1] 800
523 self-help grants	34	50
538 multi guarantee	100	
Farm Labor Program	[2] (47)	[2] (100)
Water sewer loans	1,032	1,050
Water sewer grants	588	700
Community facilities	250	250
Community facilities grants	23	50
RCDI	6	25

[1] Includes $50 million for new construction or preservation.
[2] Non-add includes funding for Sections 514 and 516.

Thank you for your time and attention.

PREPARED STATEMENT OF NATIONAL RURAL TELECOM ASSOCIATION

SUMMARY OF TESTIMONY REQUESTS

Project involved

Telecommunications lending programs administered by the Rural Utilities Service of the U.S. Department of Agriculture

Actions proposed

—Supporting loan levels for fiscal year 2002 in the same amounts as those contained in the fiscal year 2001 Agriculture Appropriations Act for hardship, cost-of-money, Rural Telephone Bank and guaranteed loan programs and the associated subsidy to fund those programs at the existing level. Opposing the recommendation by the administration contained in A Blueprint for New Beginnings to not fund new Rural Telephone Bank loans in fiscal year 2002.
—Supporting continued funding in the amount of $27 million in loan and grant authority designated for distance learning and telemedicine purposes, $2 million of which to continue to be made available for a pilot program to finance broadband transmission and dial-up Internet service in rural areas.
—Supporting an extension of the language removing the 7 percent interest rate ceiling on cost-of-money loans.
—Supporting continuation of the restriction on retirement of Rural Telephone Bank class A stock at the level contained in the fiscal year 2001 Agriculture Appro priations Act and an extension of the prohibition against the transfer of Rural Telephone Bank funds to the general fund.

Mr. Chairman, Members of the Committee: My name is John F. O'Neal. I am General Counsel of the National Rural Telecom Association. NRTA is comprised primarily of commercial telephone companies which borrow their capital needs from the Rural Utilities Service of the U.S. Department of Agriculture (RUS) to furnish and improve telephone service in rural areas. Approximately 1000, or 71 percent of the nation's local telephone systems borrow from RUS. About three-fourths of these are commercial telephone companies. RUS borrowers serve almost 6 million subscribers in 46 states and employ over 22,000 people. In accepting loan funds, borrowers assume an obligation under the act to serve the widest practical number of rural users within their service area.

PROGRAM BACKGROUND

Rural telephone systems have an ongoing need for long-term, fixed rate capital at affordable interest rates. Since 1949, that capital has been provided through telecommunications lending programs administered by the Rural Utilities Service and its predecessor, the Rural Electrification Agency (REA).

RUS loans are made exclusively for capital improvements and loan funds are segregated from borrower operating revenues. Loans are not made to fund operating revenues or profits of the borrower system. There is a proscription in the Act against loans which would duplicate existing facilities providing adequate service and state authority to regulate telephone service is expressly preserved under the Rural Electrification Act.

Rural telephone systems operate at a severe geographical handicap when compared with other telephone companies. While almost 6 million rural telephone subscribers receive telephone service from RUS borrower systems, they account for only four percent of total U.S. subscribers. On the other hand, borrower service territories total 37 percent of the land area—nearly 1½ million squares miles. RUS borrowers average about six subscribers per mile of telephone line and have an average of more than 1,000 route miles of lines in their systems.

Because of low-density and the inherent high cost of serving these areas, Congress made long-term, fixed rate loans available at reasonable rates of interest to assure that rural telephone subscribers, the ultimate beneficiaries of these programs, have comparable telephone service with their urban counterparts at affordable subscriber rates. This principle is especially valid today as the United States endeavors to deploy telecommunications "information superhighway" technology and as customers and regulators constantly demand improved and enhanced services.

At the same time, the underlying statutory authority which governs the current program has undergone significant change. In 1993, telecommunications lending was refocused toward facilities modernization. Much of the subsidy cost has been eliminated from the program. The subsidy that remains has been targeted to the highest cost, lowest density systems. Other loans are made at Treasury's cost-of-money or greater, and, in fact, involve negative subsidies.

We are proud to state once again for the record that there has never been a default in the RUS/REA telephone program! All loans have been repaid in accordance with their terms with interest!

NEED FOR RUS TELECOMMUNICATIONS LENDING CONTINUES

The need for rural telecommunications lending is great today, possibly even greater than in the past. Technological advances make it imperative that rural telephone companies upgrade their systems to keep pace with improvements and provide the latest available technology to their subscribers.

These rapid technological changes and Federal policies of competition and deregulation in the telephone industry, as evidenced by passage of the "Telecommunications Act of 1996", underscore the continuing need for targeted assistance to rural areas. The inherently higher costs to serve these areas have not abated. Regulatory trends encouraging competition among telephone systems increase pressures to shift more costs onto rural ratepayers. Interstate subscriber line charges continue to shift substantial costs to local exchange customers. Pressures to recover more and more of the higher costs of rural service from rural customers to foster urban competitive responses will further burden rural consumers.

1996 TELECOMMUNICATIONS ACT EFFECT ON RURAL AMERICA

Congress passed the Telecommunications Act of 1996 as the culmination of more than a decade of debating national telecommunications policy and balancing many diverse needs and interests. The 1996 Act responded to a number of rural needs and differences with a series of safeguards to ensure that rates, services and network development in rural America will be reasonably comparable to urban telecommunications opportunities.

The process of implementing the new law continues to raise troubling uncertainties and concerns about whether the FCC and the states will honor the balance Congress achieved in its policy, as regulators (a) radically revise the mechanisms for preserving and advancing "universal service," (b) adjust the cost recovery responsibilities and allocations of authority between Federal and state regulation, (c) effectuate the Act's somewhat different urban and rural ground rules for how new companies and incumbent universal service providers connect their networks and compensate each other and (d) peel back layers of regulation developed over a century. So far, the FCC has been overzealous in expanding the Act's market-opening provi-

sions to give new entrants a regulatory head start and advantage at the expense of the Act's rural development and universal service provisions. The FCC is trying to usurp the role of competition by dictating a whole new—and wholly inadequate—way to measure the costs of modern, nationwide telecommunications access to information. The FCC needs to reorder the sequence of its proceedings to ensure that rural Americans are not denied the ongoing network development and new services the Act requires. Rural telephone systems with universal service obligations must not be thwarted in their efforts to upgrade and provide rates and services reasonably comparable to urban offerings.

EXPANDED CONGRESSIONAL MANDATES FOR RURAL TELECOMMUNICATIONS

Considerable loan demand is being generated because of additional mandates for enhanced rural telecommunications standards contained in the authorizing legislation enacted in 1993 by Congress in Public Law 103–129. These mandates coupled with the need for stable financing sources to meet the infrastructure demands envisioned for rural areas by the 1996 telecommunications act amply demonstrate the continuing need for this important program at the following levels:

5 percent Hardship Loans	$75,000,000
Cost-of-Money Loans	300,000,000
Guaranteed Loans	120,000,000
Rural Telephone Bank Loans	175,000,000
Total	670,000,000

These are the same levels established in the fiscal year 2001 appropriations act for the hardship, cost-of-money, Rural Telephone Bank and guaranteed loan programs. The authorized levels of loans in all programs were fully obligated in fiscal year 2000 and we expect these levels to be met in fiscal year 2001. We believe that the needs of this program balanced with the minimal cost to the taxpayer argue for its continuation at enacted levels.

RURAL TELEPHONE BANK LOANS

In the Blueprint for New Beginnings, the administration proposes to not fund new Rural Telephone Bank (RTB) loans in fiscal year 2002, stating that "the RTB has accomplished its mission" and that not funding new loans should generate increased support for statutorily authorized privatization.

The Rural Telephone Bank was established by Congress in 1971 to provide supplemental financing for rural telephone systems with the objective that the bank ultimately would be owned and operated by its private shareholders. The bank's mission is not complete—far from it! Loans made today provide state of the art telecommunications technology in rural areas including the deployment of broadband technology. If Rural Americans are to be full participants with their urban neighbors in the Information Age, that job is just beginning! Economists agree that modern telecom infrastructure is the key to rural economic development which generates jobs and tax revenues for the government. Also, the RTB was one of only three USDA agencies to receive an unqualified financial opinion from USDA's Inspector General in fiscal year 2000!

The administration proposal will not "generate increased member and borrower support for statutorily authorized privatization". That already exists! Privatization of the RTB began in 1995 under the current law and is proceeding annually at the rate of approximately $25 million per year. The Bank has now retired $115.4 million, or almost 20 percent, of the government's $592 million investment. Not funding new loans in fiscal year 2002 could actually impede privatization of the Bank since the law requires that the Bank annually retire government stock at the rate of at least 5 percent of the amount of new loans. If no new loans were made, there would be no minimum requirement for retirement of additional government stock.

The current loan level of $175 million has remained the same for many years. As a matter of fact, after factoring in the eroding effect of inflation, loan levels over the years have actually been reduced systematically. Despite this fact, we believe that the $175 million level is adequate to meet current program needs and strikes a cost effective balance for the taxpayer. This amount was fully obligated in fiscal year 2000 and we expect it to be met again this year. If no bank loans were made in fiscal year 2002, at current loan levels, the budgetary outlay savings would amount to less than $26,000 not the $3 million quoted by the administration because RTB loans are funded over a multi-year period. Therefore, continuing to fund $175 million of infrastructure investment will cost less than $26,000 in fiscal year 2002! Moreover, if administration interest rate predictions are accurate, RTB loans

could actually generate a profit for the government because of the minimum statutory interest rate of 5 percent!

SPECIFIC ADDITIONAL REQUESTS

Continue the Removal of the 7 percent Cap on Cost-of-Money Loans

Again this year we are supporting removal of the 7 percent ceiling on cost-of-money loans even though long-term Treasury rates are currently below this level.

Continue the Restriction on Retirement of Class A Government Stock in the Rural Telephone Bank (RTB) and also Continue the Prohibition Against Transfer of RTB Funds to the General Fund and Require the Payment of Interest

The Committee should continue the restriction on retirement of the amount of class A stock by the Rural Telephone Bank in fiscal year 2002. The Bank is currently in the process of retiring the government's stock as required under current law. We believe that this process which began in fiscal year 1996 should continue to be an orderly one as contemplated by the retirement schedule enacted six years ago and continued in last year's bill to retire no more than 5 percent of the total class A stock in one year. We also urge the Committee to continue the prohibition against the transfer of any unobligated balance in the bank's liquidating account which is in excess of current requirements to the general fund of the Treasury along with the requirement that the bank receive interest on those funds. The private Class B and C stockholders of the Rural Telephone Bank have a vested ownership interest in the assets of the bank including its funds and their rights should be protected. Previous appropriations acts (fiscal year 1997 through 2001) have recognized the ownership rights of the private class B and C stockholders of the bank by prohibiting a similar transfer of the bank's excess unobligated balances which otherwise would have been required under the Federal credit reform act.

Loans and Grants for Telemedicine, Distance Learning and Internet Access

We support the continuation in fiscal year 2002 of the $27 million in loan and grant authority provided in fiscal year 2001 for telemedicine and distance learning purposes. Loans are made at the government's cost-of-money. The purpose is to accelerate deployment of telemedicine and distance learning technologies in rural areas through the use of telecommunications, computer networks, and related advanced technologies by students, teachers, medical professionals, and rural residents.

We also support making available $2 million of the above amount for continuation of the pilot program to finance broadband transmission and local dial-up access to the Internet in rural areas. This $2 million allocation is providing $100 million in rural infrastructure improvements in fiscal year 2001.

CONCLUSION

Thank you for the opportunity to present the association's views concerning this vital program. The telecommunications lending programs of RUS continue to work effectively and accomplish the objectives established by Congress at a minimal cost to the taxpayer.

At the time of this filing, the administration has not submitted to the Congress its comprehensive budget request for fiscal year 2002. A Blueprint for New Beginnings is all that has been made publically available. If the final budget submission contains additional recommendations concerning the RUS telecommunications lending programs, we respectfully request the opportunity to file additional testimony with the Committee in response to such initiatives.

PREPARED STATEMENT OF THE NATIONAL TELEPHONE COOPERATIVE ASSOCIATION

SUMMARY

NTCA makes the following fiscal year 2002 funding recommendations with regard to the Rural Utilities Service Telecommunications Loan Program and related programs.

—Support the provisions of the president's budget proposal calling for the required subsidy to fully fund the RUS Telecommunications Loan Program's Hardship Account at a $75 million level, Cost of Money Account at a $300 million level, and Guaranteed Account at a $120 million level, and administrative expenses of $35.6 million.

—Reject the provisions of the president's budget proposal calling for zero funding for the Rural Telephone Bank (RTB). Instead, provide the required subsidy to

fully fund the bank at last fiscal year's $175 million level. Also, provide a new line item appropriation of $500,000, over and above and separate from the regular administrative expenses of the RTB and the RUS for use by the RTB's elected directors to secure independent counsel and other professional services to help them properly perform their fiduciary responsibilities.

—Support an extension of language that temporarily sets aside the 7 percent interest rate cap on loans made through the RUS Cost of Money fund.

—Support an extension of the restriction against RTB Liquidating Account funds from being swept to the general Treasury.

—Support an extension of language prohibiting the expenditure of RTB Liquidating Account funds to provide for the subsidy or operational expenses of the bank.

BACKGROUND

NTCA is a national association representing more than–540 small, rural, cooperative and commercial, community-based local exchange carriers (LECS) located throughout the nation. These locally owned and operated LECs provide local exchange service to more than 2.5 million rural Americans. Through the 51-year history of the RUS Telecommunications Loan Program, more than 80 percent of NTCA's member systems have been able to utilize the Federal program to one degree or another.

NTCA's members, like most of the country's independent LEC'S, evolved to serve high-cost rural areas of the nation that were overlooked by the industry's giants as unprofitable. On average, NTCA members have approximately 6 subscribers per mile of infrastructure line, compared with 130 for the larger urban-oriented LECs. This results in an average plant investment per subscriber that for NTCA members is 38 percent higher than for most other systems.

Congress recognized the unique financing dilemma confronting America's small rural LECs as early as 1949. It was in that year that it amended the Rural Electrification Act (RE Act) to create the Rural Electrification Administration (REA) Telephone Loan Program, today known as the RUS Telecommunications Loan Program. Through the years Congress has periodically amended the RE Act to ensure that original mission—to furnish and improve rural telephone service—was met. In 1971, the Rural Telephone Bank (RTB) was created as a supplemental source of direct loan financing. In 1973, the RUS was provided with the ability to guarantee Federal Financing Bank (FFB) and private lender notes. In 1993, Congress established a fourth program lending facet, the Treasury Cost of Money account.

RUS HELPS MEET INFRASTRUCTURE DEMANDS

While the RUS has helped the subscribers of NTCA's member systems receive service that is comparable or superior to that available anywhere in the nation, their work is far from complete. As Federal policies such as the Telecommunications Act of 1996 continue to evolve, and as policymakers and the public alike continue to clamor for the ubiquitous deployment of advanced services, the high costs associated with providing modern telecommunications services in rural areas will not diminish.

RUS telecommunications lending has stimulated billions of dollars in private capital investment in rural communications infrastructure. In recent years, on average, less than $13 million in Federal subsidy has effectively generated $670 million in Federal loans and loan guarantees. For every $1 in Federal funds that were invested in rural communications infrastructure, $4.50 in private funds were invested. The RUS is also making a difference in our rural schools, libraries, and hospitals. Since 1993, the RUS Distance Learning and Telemedicine Grant and Loan program has funded hundreds of projects throughout the nation for interactive technology in rural schools, libraries, hospitals, and health clinics.

In addition, two other RUS-related programs are making a difference in rural America. Formerly under the RUS, and known as the Zero Interest Loan and Grant Program, the Rural Economic Development Grants Program, and the Rural Economic Development Loans Program are now managed by the Rural Business Cooperative Service. The two programs provide funds for the purpose of promoting rural economic development and job creation projects, including funding for project feasibility studies, start-up costs, incubator projects and other expenses tied to rural development.

NTCA'S FISCAL YEAR 2002 APPROPRIATIONS RECOMMENDATIONS

Fully Fund The Entire RUS Telecommunications Loan Program.—With respect to the discussion above, it is imperative that the entire RUS Telecommunications Loan Program be funded at the following levels:

Hardship Account	$75,000,000
Treasury-rate Account	300,000,000
Guaranteed Account	120,000,000
Rural Telephone Bank Account	175,000,000
Total	670,000,000

Additionally, to support the operations of the RUS, it is critical that Congress provide at least the $35.6 million in administrative appropriations the president's budget proposal envisions.

Reject President's Proposal To Provide Zero RTB Funding.—The president's budget proposal contains a proposal that suggests the Rural Telephone Bank should not be funded in fiscal year 2002 which the administration insinuates may push private stockholders to move to the bargaining table regarding the potential accelerated privatization of the bank. The proposal is completely unfounded and unnecessary. Congress, RTB Stockholders, and the rural telecommunications industry deserve the benefit of having RTB privatization reviewed thoroughly, and not in the vacuum of the budgetary process.

The bank is already privatizing at an annual minimum pace as is mandated by the Rural Electrification Act. Indeed, were Congress to go along with the president's fiscal year 2002 RTB proposal, it would effectively be halting this minimum statutory pace which is tied to the amount of loan making that is conducted in any given fiscal year. In light of these facts as well as that which clearly shows this proposal is out of step with the desire of policymakers and the public alike to quickly deploy advanced services throughout America, we urge Congress to reject this ill-conceived proposal and instead fully fund the bank at its regular $175 million annual level.

With regard to privatization specifically, it is important to note that parties within the Office of Management and Budget, the Federal Treasury, the Rural Utilities Service, and indeed the industry itself, continue to look at the various issues associated with doing so on an accelerated basis. While NTCA does not reject such discussions out of hand, it does continue to believe such discussions may be premature as long as the bank is not provided with an absolute legal determination as to the status of its assets now and at the time of partial or complete privatization. Additionally, NTCA believes any accelerated privatization should never be commenced without first conducting the appropriate due diligence to determine whether the entity would be viable were it to privatize on such a basis.

In order to help make such determinations, the bank's industry directors should be provided with adequate resources to both hire independent counsel as well as to secure other resources to assist them in making such determinations, and in effect, meeting their fiduciary responsibilities. With this in mind NTCA recommends that Congress appropriate an additional specific line item of $500,000 over and above, and separate from the regularly appropriated administrative amounts that are appropriated for RUS and RTB administrative and operational activities.

Prohibit The Transfer Of Unobligated RTB Liquidating Account Balances.—NTCA also recommends that Congress continue the prohibition against the transfer of any unobligated balances of the Rural Telephone Bank liquidating account to the general fund of the Treasury. This language has routinely been included in annual appropriations measures since the enactment of the Federal Credit Reform Act (FCRA), Public Law 101–508 that allows such sweeping to potentially occur. Restatement of this language will again ensure that the RTB's private class B & class C stockholder are not stripped of the value of their statutorily mandated investment in the Bank.

Prohibit RTB From Self Funding Subsidy And Administrative Costs.—NTCA urges Congress to maintain its prohibition against unobligated RTB Liquidating Account Balances being used to cover the banks administrative and operational expenses for the following reasons: (1) such action would require amendment of the RE Act, (2) the proposal appears to be in conflict with the intent of the FCRA, (3) the proposal will not result in Federal budgetary savings, (4) it is unnecessary to the determination of whether the bank could operate independently, and thus would amount to wasting the resources of the bank which could be put to better use upon its complete privatization.

Extend Removal Of The Interest Rate Cap On Treasury-Rate Loans.—NTCA is also requesting that Congress again include language removing the 7 percent inter-

est rate cap on Treasury-rate loans. This provision has been included in recent appropriations measures to prevent the potential disruption of the program in the case where interest rates exceed 7 percent and insufficient subsidy cannot support authorized lending levels.

Continue Distance Learning and Telemedicine Loan and Grant Program.—The RUS Distance Learning and Telemedicine Loan and Grant program has proven to be an indispensable tool for rural development. In this regard, NTCA urges Congress to provide adequate funding for this critical program. NTCA supports the recommendations for this program that are contained in the president's budget proposal.

Preserve RBCS Rural Development Grant and Loan Programs.—Likewise, NTCA has witnessed the good these programs have done for rural communities. NTCA urges Congress to ensure funding is at levels that are adequate to meet current demand for the programs.

CONCLUSION

The RUS Telecommunications Loan Program bears a proud 51-year record of commitment, service, and achievement to rural America. Never in its entire history has the program lost even a dollar to abuse or default—an unparalleled feat for any government-sponsored lending program. Clearly such a successful program should remain in place to continue to ensure rural Americans have the opportunity to play a leading role in the information age in which we live. After all, an operational and advanced rural segment of the nation's telecommunications infrastructure is critical to truly ensuring that the national objective of universal telecommunications service is fulfilled. Please help us accomplish that objective.

PREPARED STATEMENT OF THE NATIONAL TREASURY EMPLOYEES UNION

Chairman Cochran, Ranking Member Kohl, and distinguished members of this Subcommittee, my name is Colleen Kelley and I am the National President of the National Treasury Employees Union. NTEU represents more than l55,000 Federal employees across the Federal government, including the employees who work at the Food and Drug Administration. I want to thank you for giving me the opportunity to present testimony on behalf of these dedicated men and women who work to ensure the safety of our food, drugs, cosmetics, and medical devices.

It is unfortunate that even at this late date, the Bush Administration still has not released details of its budget for the FDA or any other agency for fiscal year 2002. While I can only speculate about Congressional concerns about not knowing the new Administration's budget priorities, I know for certain that the men and women who work at the FDA are very frustrated that they still do not know what President Bush has in store for their agency.

Without question, the Food and Drug Administration (FDA) is one of the most important agencies in our government. The FDA regulates more than $1 trillion worth of products that account for about 25 cents out of every dollar of American consumer spending. The FDA is staffed with experts in an extraordinary range of fields. Microbiologists, chemists, consumer safety officers, and others are working around the clock testing, approving, and regulating new drugs, robotics, and other medical devices, that will not only improve the quality of life for millions of Americans, but in many cases actually save lives. They are working to ensure the food we eat is safe and free of disease-causing contaminants. They approve new food products, food additives, and dietary supplements, and work to ensure these new products pose no threat to our health.

FDA employees who work in the field offices and laboratories located throughout the country have developed valuable working relationships with top scientists, health officials, and local industries. These employees are on the front lines in protecting consumers from mislabeled foods, food borne diseases, defective medical devices, or unsafe cosmetics or drugs. And they work very closely with Customs, USDA, and others at our borders and ports, to inspect and test imported foods and drugs.

While FDA employees continue to respond to the call of the American people for ensuring our food supply is safe and more effective drugs and medical products are brought to consumers more quickly, the demands placed on the FDA workforce have increased significantly over the past decade, and will continue to grow. Research dollars invested by the pharmaceutical and food industries have been skyrocketing. And since the implementation of NAFTA, GATT, and other international trade agreements, there has been a dramatic increase in the quantity and complexity of imports of FDA-regulated products across our borders and into our ports. But while

there are more products on the market to regulate, more imports of food and drugs to inspect, and more new product applications to approve, the FDA is being given fewer resources. The workload has increased while the budget for the FDA has remained flat.

Unless President Bush and Congress agree to provide the FDA with more funding for staffing and resources, the agency will not be able to respond to the constantly changing and more complex public health threats facing our nation. Last year, Congress approved $1.217 billion for salaries and expenses at the FDA. Unfortunately, the amount provided was $89 million less than what President Clinton requested for the FDA. Meanwhile, Congress continued with its plans to double the NIH budget over the next five years. $20.3 billion was provided for NIH for fiscal year 2001, an increase of $1.5 billion over the President's request, and $2.5 billion more than the previous year. And the pharmaceutical industry and academic community invested billions more in medical research.

If we want Americans to be able to reap the benefits as quickly as possible from medical breakthroughs resulting from our investments in medical research, then President Bush and Congress must ensure the FDA—the agency charged with regulating these new drugs and medical technologies—receives, at a minimum, funding increases proportionate to the increases for the NIH. NTEU is hopeful that President Bush and Congress will work to provide the FDA with the staffing and resources necessary to protect and improve the health of the American public. Funding shortfalls in the future will significantly hamper FDA's ability to identify and respond to current health threats, and take pro-active measures to approve drugs and other products aimed at preventing future health problems. I also want to highlight the need for Congress to pay special attention to not only maintain, but to expand, the current FDA laboratory and field structure. While most of the FDA's workforce is employed in the Washington, DC region, almost a third of the workforce is located outside of the Beltway. The FDA is beginning to implement a plan to close many of its field laboratories and consolidate them into a handful of locations. Shutting down most of these FDA labs across the country will lead to delays in getting potentially harmful market products to FDA laboratories for sampling and analysis. Furthermore, with increased trade into, and out of, our airports and seaports, and the growth of food and drug industries, FDA's lab infrastructure—both in terms of people and technology—is that much more critical for consumers and for industry.

NTEU also has serious misgivings about FDA plans to change its program of voluntary Saturday work for employees in the field performing laboratory or lab-related functions to make such work mandatory. The agency is proposing this despite the fact that, around the country, it has encountered virtually no problems using its present program to secure volunteers for weekend work. Employees who work at the FDA laboratory understand that FDA needs to have its laboratories staffed on Saturdays, and we would be pleased to work with the agency to fix any real or perceived problems in the voluntary weekend work program. However, making weekend work mandatory for FDA employees—many of whom have worked Monday through Friday schedules for more than twenty years—is the wrong approach.

The FDA proposals to close laboratories and force employees to dramatically change their work and family schedules are not only unnecessary, they are unwise. NTEU believes these plans are shortsighted and will force hundreds of experienced professionals to leave the agency at a time when competition for their services by private sector companies is intense. The American public cannot afford the risk of losing these valuable resources.

It is ironic that at a time when many in Congress are increasingly concerned about the government's inability to retain and recruit highly qualified individuals into public service, FDA would seek to roll the dice with their own workforce. As it stands now, the FDA is struggling to retain and recruit qualified individuals to serve this Agency. And it has been widely documented that the Federal government is expected to lose nearly half of our experienced scientists in the next four years due to retirement. The FDA can only continue to maintain its competence and credibility by strengthening the agency's science base, not tearing it apart. With adequate funding for staffing and equipment, it would be NTEU's hope that FDA would abandon these risky plans. Therefore, it is incumbent upon the President and Congress to provide FDA with the resources necessary to retain those currently employed at the FDA and recruit more qualified individuals to ensure an efficient and effective FDA in the future.

I am very proud of the work the men and women at the FDA do to protect consumers and improve our public health. Yet, our global leadership in this area will be jeopardized if we do not provide the FDA with the staffing and tools required

to carry out its mission. The American people rightly demand and expect that their food, drugs, cosmetics, and medical devices are safe—and they deserve no less.

Whether it is testing a new vaccine, approving the application for a new dialysis machine, or increasing the safety of our food supply by identifying deadly food pathogens, the men and women at the FDA are working for you, working for America. Congress needs to approve an FDA budget that works for them.

PREPARED STATEMENT OF THE NATIONAL TURFGRASS EVALUATION PROGRAM

Mr. Chairman and Members of the Subcommittee: On behalf of the National Turfgrass Evaluation Program (NTEP), I appreciate this opportunity to provide the Subcommittee with the turfgrass industry's perspective in support of restoration of the $55,000 appropriation for the National Turfgrass Evaluation Program (NTEP) deleted in the President's fiscal year 2002 budget request for the Agricultural Research Service (ARS). Also, I appreciate the opportunity to present to you the turfgrass industry's need and justification for continuation of the $250,000 appropriated in the Presidents's fiscal year 2001 budget for a full-time turfgrass scientist position within ARS. In addition, I appreciate the consideration of an additional appropriation of $1,050,000 for the establishment of a national turfgrass research laboratory, as proposed by ARS, with three new research scientist positions at Beltsville, Maryland.

Justification of $55,000 Appropriation Request for Program Support.—Once again, NTEP and the turfgrass industry come to the appropriations process to request that $55,000 be restored to the ARS budget to provide basic and minimal support for NTEP's activities at Beltsville. We appreciate the Subcommittee's restoration of this amount in previous fiscal years, and hope that you will agree with us that this request is justified for the ensuing fiscal year.

The National Turfgrass Evaluation Program (NTEP) is unique in that it provides a working partnership that links the Federal government, turfgrass industry and land grant universities together in their common interest of turfgrass cultivar development, improvement and evaluation. The National Turfgrass Evaluation Program is the primary means by which cultivated varieties of turfgrass are evaluated in this country. It provides unbiased information on turfgrass cultivar adaptations, disease and insect resistance and environmental stress tolerance. The public and private sectors of the turfgrass industry use this information to develop cultivar recommendations for home owners, sod producers, sports turf and parks managers, golf course superintendents and highway vegetation managers.

Our nation's awareness of safety is at an all-time high. Turfgrass provides multiple benefits to society including child safety on athletic fields, environmental protection of groundwater, reduction of silt and other contaminants in runoff, green space in home lawns, parks, golf courses, etc. With the advancements being made to turfgrasses that require less pesticides, water and other inputs as well as other efforts to improve integrated pest management programs, recycling, etc., the USDA has a unique opportunity to take positive action in support of the turfgrass industry. With a minuscule investment of Department funds, in relative terms within USDA's budget, a tremendous return can be gained for society and the turfgrass industry.

While the vast majority of the USDA's funds have been and will continue to be directed toward traditional "food and fiber" segments of U.S. agriculture, it is important to note that turfgrasses (e.g., sod production) are defined as agriculture in the Farm Bill and by many other departments and agencies. Further, it is estimated by the Economic Research Service that the turfgrass industry, in all its forms, is a $30–35 billion industry. It should also be noted that the turfgrass industry is the fastest growing segment of U.S. agriculture, while it receives essentially no Federal support. There are no subsidy programs for turfgrass, nor are any desired.

For the past seventy years, the USDA's support for the turfgrass industry has been modest at best. The turfgrass industry's rapid growth, importance to our urban environments, and impact on our daily lives warrant more commitment and support from USDA. Failing to support the National Turfgrass Evaluation Program, would be a tremendous oversight of a major opportunity. USDA's support of NTEP at the $55,000 level does not cover all costs. In fact, NTEP represents an ideal partnership of the public and private sectors in terms of program cost sharing. The NTEP relies most heavily on turfgrass industry (i.e., public sectors, end-users) support. However, it is essential that the USDA maintain its modest financial support and work closely with NTEP. The turfgrass industry relies heavily on NTEP for unbiased information. Discounting this support will also eliminate a highly reliable and credible level of objectivity that is associated with the NTEP program.

Justification of $250,000 Appropriation Request for ARS Scientist Position as well as $1,050,000 Appropriation Request for the Establishment of a National Turfgrass Research Laboratory.—NTEP and the turfgrass industry are requesting the Subcommittee's support for $250,000 continuing funding for the full-time scientist staff position at ARS, focusing on turfgrass research, that was appropriated in the fiscal year 2001 budget. We also request that the Subcommittee appropriate an additional $1,050,000 for establishment of a national turfgrass research laboratory within USDA, ARS for the specific purpose of collecting, evaluating and enhancing turfgrass germplasm. We ask that three new scientist positions be created and located at the Beltsville Agricultural Research Center in Beltsville, MD.

Our society is becoming increasingly more urbanized. Currently, turfgrasses impact more than 90 percent of all people in the U.S. through exposure to home lawns, business landscapes, roadsides, parks, or recreational turf on a daily basis. As more and more cropland is converted to houses, office parks, shopping centers, etc., the acreage of turfgrass is increasing exponentially. However, with the increasing urbanization comes a greater demand on resources, such as potable water. Also, with the general public experiencing heightened awareness of the environment and its protection, use of inputs such as fertilizer, pesticides and water on turfgrass areas is coming under greater scrutiny. In some jurisdictions, use of these inputs will either be banned or severely restricted for turfgrass use. In addition, the urbanization of America is leading to an overuse of current recreational facilities such as parks, athletic fields and golf courses. New facilities are being considered or constructed, many on abandoned sites such as landfills, industrial wastelands, gravel pits or mine spoils. Turfgrasses in these areas will play an important role in reclamation vegetation, recreational turf or both.

The USDA needs to initiate and maintain ongoing research on turfgrass development and improvement for the following reasons:

—The value of the turfgrass industry in the U.S. is $30–$35 billion annually. Turfgrass is the number one or two agricultural crop in value and acreage in many states (i.e. MD, PA, FL, NJ, NC).

—As our society becomes less rural and more urbanized, the acreage of turfgrass will increase significantly. Consequently, state and local municipalities will require the utilization of other water sources (i.e. effluent, reclaimed, sea water), reduction of pesticide use and elimination of nutrient runoff from turfgrass areas. However, demand on recreational facilities will increase while these facilities, for safety reasons, will still be required to provide safe, attractive athletic fields, parks and grounds.

—Private and university research programs are working to develop improved turfgrasses, but they do not have the time nor resources to identify completely new sources of beneficial genes in commonly used species or the usefulness of potential new species. In addition, new plant materials collected by these institutions most often are not placed in the National Plant Germplasm System for use by all interested parties. Additionally, long-term research to identify and transfer desirable genes from other species (turfgrass or other crop species) is not being undertaken by public and private interests. ARS scientists working with turfgrass will enhance the ongoing research and development currently underway within the public and private sectors of the turfgrass industry. They will provide linkages between public and private research efforts and enhance the development of stress-tolerant and pest-resistant germplasm for the turfgrass industry. Furthermore, this research will not inhibit or compete with, nor will it duplicate, current efforts by public and private plant breeders, universities and development companies as germplasm (improved genetic stocks) developed will be released to the general public for further refinement.

—USDA conducted significant turfgrass research from 1920–1988. The United States Golf Association (USGA) Green Section was initially a cooperative program between the USGA and USDA. However, since 1988, no full-time scientist has been employed by USDA, Agricultural Research Service (ARS) to conduct turfgrass research specifically.

—Research on florist, nursery and ornamental crops is significant within USDA, ARS with new funding and programs being added virtually every year—industries with far less public and commercial value than turfgrass.

A new turfgrass research scientist position within USDA, ARS was created by Congress in the fiscal year 2001 budget. Accordingly, in January 2001, the turfgrass industry met with USDA, ARS officials to discuss the position description, hiring process, facilities needed, etc. for the new position. ARS welcomed the new position but felt strongly that the position description was too broad in scope. Also, they were concerned that just one person working in turfgrass research would be ineffective in addressing the needs and concerns of the industry. They felt the duties de-

scribed in the earlier funding request warranted several scientists working in a team effort. To accomplish this, ARS proposed the following:

A NATIONAL STRATEGY FOR ARS TURFGRASS RESEARCH

Research Objectives.—Conduct long-term basic and applied research to provide knowledge, decision-support tools and plant materials to aid in designing, implementing, monitoring and managing economically and environmentally sustainable turfgrass systems including providing sound scientifically based information for use in the regulatory process.

Research Focus.—To make a significant contribution in developing and evaluating sustainable turfgrass systems, ARS would need to conduct research in two major areas:

—The collection, evaluation, protection and enhancement of germplasm, primarily through molecular techniques, to improve establishment, persistence and care of turfgrasses for a variety of uses. This research would include a plant physiology component to identify, understand and manage plant mechanisms that adapt to environmental stresses.

—Long-term applied research to design and evaluate sustainable turfgrass management systems for a variety of environmental conditions with the objective of economically optimizing inputs and outputs to meet performance and environmental standards. This research would include "turfgrass ecological systems" management that would look at such issues as water quality and watershed-level analysis, energy balances including carbon sequestration and management energy inputs, and impacts on wildlife in an urban environment.

ARS will conduct a stakeholder workshop in fall 2001, as they have done with other commodities, to gain valuable input from turfgrass researchers, golf course superintendents, sod producers, lawn care operators, gardeners, regulatory personnel, etc. These discussions will allow ARS to refine the proposal to meet the specific needs of the industry. ARS plans to include this updated proposal in their fiscal year 2003 budget proposal which would include establishment of a national laboratory with four to five scientists initially. More funding for additional scientists would be requested in future ARS budget requests, in accordance with industry needs and possible redirection of current personnel.

The turfgrass industry is very excited about this new proposal and wholeheartedly supports the efforts of ARS. However, the needs are so great, the turfgrass industry cannot wait an additional year to establish the national laboratory. Therefore, for fiscal year 2002, the turfgrass industry requests that the following unit be established within USDA, ARS:

A turfgrass genomics unit that includes the following:

—*Plant Germplasm Collection and Evaluation.*—This person will identify new genetic sources of commonly used and potential turfgrass species in natural habitats. Also, they will collect specimen plants as a vital first step in conserving resources and maintaining bio-diversity. Additionally, they will conduct germplasm evaluations to identify important traits that provide improved resistance to various environmental stresses and extreme conditions relating to soils, pests, etc. The new position created in the fiscal year 2001 budget will fulfill these duties.

—*Genomics/Genetics Studies.*—A molecular geneticist or cytogeneticist is needed to better understand the genomics of various turfgrass species, collected wild germplasm and their evolution. Also needed is an understanding of how desirable genes and traits may be transferred from wild related plants to improved turfgrass species. This research will allow improved drought, salt and wear tolerance, along with disease and insect resistance, to be incorporated into species not currently possessing these traits.

—*Transfer of Desirable Genes.*—A molecular geneticist will work to identify desirable genes and how they may be transferred to current turfgrass species. This person will work to better understand the molecular/cellular aspects of current and potential turfgrass species and using molecular techniques, will transfer desirable genes and traits within species and between species.

—*Evaluation and Enhancement of Genetically Altered Grasses.*—A turfgrass breeder will evaluate and enhance the genetically altered plants from the program using recurrent genetic recombination techniques and selection of superior turfgrass plants. This person will also conduct genetic studies to confirm the presence of these genes and their stability within the genome. This work will produce germplasm with desirable turfgrass characteristics as well as new genes for stress tolerance, disease and insect resistance, etc. This enhanced

germplasm will be easily accessible to breeders in the public and private sectors; i.e. released through the National Plant Germplasm System (NPGS).

In conclusion, on behalf of the National Turfgrass Evaluation Program and the turfgrass industry across America, I respectfully request that the Subcommittee restore the vital $55,000 appropriation for the National Turfgrass Evaluation Program (NTEP) as well as the $250,000 appropriated in fiscal year 2001 for the new turfgrass scientist position in the fiscal year 2002 budget for the Agricultural Research Service. I also request that the Subcommittee appropriate an additional $1,050,000 for the establishment of a national turfgrass research laboratory at Beltsville, Maryland with three new full-time scientist positions within USDA, ARS for the specific purpose of collecting germplasm, conducting genetics/genomics studies and producing improved, genetically-enhanced turfgrasses for the public good.

Thank you very much for your assistance and support.

PREPARED STATEMENT OF THE NATIONAL UTILITY CONTRACTORS ASSOCIATION

Mr. Chairman and Members of the Subcommittee, my name is Angelo Di Paolo. I am President of the National Utility Contractors Association (NUCA) and President of Di Paolo Company in Glenview, Illinois. I see firsthand everyday the dire water and wastewater infrastructure needs our country faces, so I sincerely appreciate your interest in preventing public health and environmental disasters in rural communities by adequately funding the U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) Water and Waste Disposal infrastructure program for fiscal 2001.

FISCAL 2001 RECOMMENDATION

On behalf of NUCA's nearly 2,000 members and the citizens of rural America who endure daily life without the basic wastewater infrastructure that ensures clean drinking water and appropriate disposal of waste, I respectfully request that the Subcommittee appropriate a minimum of $700 million in budget authority for the RUS Water and Waste Disposal Program. Further, I respectfully ask that Congress allow the RUS to determine the most appropriate allocation of the budget authority to loans and grants as it is in the best position to target the grants toward the very poor while providing loans for the relatively more well-healed communities.

RURAL WATER AND WASTE DISPOSAL NEEDS AND THE RUS CURE

Imagine waking up, sleepily walking into the bathroom, turning the shower faucet, and being greeted by stinky, murky water. Imagine being unable to quench your thirst because only unfiltered water comes to your house. Comparatively speaking, these are mild pictures of the horrible circumstances that almost a million rural residents endure daily. These Americans do not have potable water or effective waste disposal systems. Moreover, the citizens facing these problems are those least able to afford bottled water services. Generally, the affected families live below the poverty level, $16,700. So even if they aren't drinking contaminated water, they have no choice but to wash and cook with it. Ironically, in the town serving as the namesake for Deer Park bottled water, the locals were drinking unfiltered water from shallow wells until the RUS funded a $1.7 million water system in 1998. RUS Water and Waste Disposal loan and grant programs provide such funds for small communities with 10,000 or fewer residents that cannot secure reasonable financing for drinking water and wastewater infrastructure improvements. The majority of the residents are low-income and cannot afford even the smallest ratepayer increases, increases that would be certainties with other infrastructure funding sources.

Currently, there is a $3.8 billion backlog of applications from needy communities that simply cannot afford to build their infrastructure through other funding sources. At this time last year, the backlog was only $3.2 billion. Today, communities must wait an average of approximately three years from the start of an application process to the time that RUS commits funds. During the three-year wait, children and the elderly continue to be exposed to waterborne diseases that have life-long or terminal effects on their health. No state is immune from this problem. According to the USDA's recent best estimates, at least 260,000 American homes still do not have complete plumbing. Another 715,000 homes have critical problems with drinking water quality, quantity, and availability. At least 1.1 million homes have inadequate wastewater disposal systems that threaten human and environmental health.

The U.S. Environmental Protection Agency (EPA) estimated in 1997 that some 15 million households use private wells and another 1 million homes rely on untreated water sources that include cisterns and water hauled from springs, rivers, and lakes. In 1996, the EPA estimated that small communities with 10,000 or fewer residents face more than $13.8 billion in capital costs over the next two decades for sewage collection and treatment works. That figure does not include an estimation of septic system needs. These figures are considered by most within EPA to be conservative estimates. Regardless how you look at the needs, a $700 million investment would be worth every penny.

Despite their inability to afford other funding sources, the communities historically do not default on RUS loans. Year after year, the USDA maintains an unrivaled loan delinquency rate of just over one percent and a long-term loss rate of one-tenth of one percent on the wastewater loan program.

CONCLUSION

We, the members of NUCA, urge you to fund the RUS Water and Waste Disposal loans and grants program at a minimum $700 million for fiscal 2001. Thank you for considering our recommendation.

PREPARED STATEMENT OF THE NATIONAL WATERSHED COALITION

Mr. Chairman and members of the Subcommittee, I am Bill Hamm from Walton, Kansas, and I am pleased to represent the National Watershed Coalition (NWC) as its Chairman. The National Watershed Coalition is privileged to present this testimony in support of the most beneficial water resource conservation programs ever developed in the United States. The Coalition recognizes full well the need to use our tax dollars wisely. That makes the work of this Subcommittee very important. It also makes it imperative that the Federal programs we continue, are those that provide real benefit to society, and are not programs that would be nice to have if funds were unlimited. We believe that the Small Watershed Program (Public Law 83–566) and the Flood Prevention Operations Program (Public Law 78–534) are examples of those rare programs that address our nation's vital natural resources which are critical to our very survival, do so in a way that provide benefits in excess of costs, and are programs that serve as models for the way all Federal programs should work.

The watershed as the logical unit for dealing with natural resource problems has long been recognized. Public Law 566 offers a complete watershed management approach, and should have a prominent place in our current Federal policy emphasizing watersheds and total resource management based planning. Proper watershed management improves water quality. Why should the Federal government be involved with these watershed programs?

—They are programs whose objectives are the sustaining of our nation's precious natural resources for generations to come.

—They are not Federal, but federally assisted, locally sponsored and owned. They do not represent the continued growth of the Federal government.

—They are locally initiated and driven. Decisions are made by people affected, and respect private property rights.

—They share costs between the Federal government and local people. Local sponsors pay between 30–40 percent of the total costs of Public Law 566 projects.

—They produce net benefits to society. The most recent program evaluation demonstrated the actual ratio of benefits to costs was approximately 2.2:1. The actual adjusted economic benefits exceeded the planned benefits by 34 percent. How many other Federal programs do so well?

—They consider and enhance environmental values. Projects are subject to the discipline of being planned following the National Environmental Policy Act (NEPA), and the Federal "Principles and Guidelines" for land and water projects. That is public scrutiny!

—They are flexible programs that can adapt to changing needs and priorities. Objectives that can be addressed are flood damage reduction, watershed protection (erosion and sediment control), water quality improvement, rural water supply, water conservation, fish and wildlife habitat improvement, recreation, irrigation and water management, etc. That is flexibility emphasizing multiple use.

—They are programs that encourage all citizens to participate.

—They can address the needs of low income and minority communities.

—And best of all—they are programs the people like!

The National Watershed Coalition is concerned with the recent Congressional lack of support for these watershed programs, with the exception of the recent watershed

rehabilitation legislative efforts, and hopes the outcome of the fiscal year 2002 appropriations process will enable this vital work to continue and expand as we seek to preserve, protect and better manage our nation's water and land resources. Every State in the United States has benefited from the Small Watershed Program.

In order to continue this high priority work in partnership with states and local governments, the Coalition recommends a fiscal year 2002 funding level of $250 million for Watersheds and Flood Prevention Operations, Public Law 83–566 and Public Law 78–534. We recommend that $30 million of this amount be for Public Law 78–534 projects. For some years now, the Federal budget has eliminated the separate line items for the Public Law 534 and Public Law 566 watershed projects, and just lumped a total figure under Public Law 566 with a note that some amount "may be available" for Public Law 534 projects. This is an entirely unsatisfactory way of doing business. Public Law 534 still exists in law; it has not been repealed. It should be funded as a separate program. The current situation really penalizes both Public Law 534 and 566, as 534 has no funds at the outset, and in order to provide a little something to the Public Law 534 watershed projects, NRCS has to take some money from the Public Law 566 accounts which are already very underfunded. Please restore funding for Public Law 534 watershed projects to $30 million in fiscal year 2002. We also recommend that watershed surveys and planning be funded at $25 million, which represents the true need.

We would also suggest that $55 million be used for structural rehabilitation and replacement, in accordance with Public Law 106–472, the Small watershed Rehabilitation Amendments of 2000, passed by the Congress and signed into law on November 9th, 2000, and that another $5 million be available for a thorough assessment of rehabilitation needs. The condition of our nation's dams, and the need for watershed structure rehabilitation, is a national priority we believe. There is also a research and development (R&D) need as we get the structural rehabilitation process underway. In USDA, that work in undertaken by the Agricultural Research Service (ARS). That need is estimated at $1.5 million, and we ask that it be included in the ARS budget. It would be used for evaluation of upstream and downstream changes to the stream channel systems in cases of decommissioning, evaluation of the water quality impact of stored sediment releases, and the evaluation of impacts of the loss of flood protection, among other things.

We recognize Congress may be thinking of lesser amounts for these programs. But we are not playing a responsible role if we do not help you recognize the true need if we continually recommend the Federal share of these needed funds be less. We hope that everyone understand these funds are only a part of the total that are committed to this vital purpose. The local project sponsors in these "federally assisted" endeavors have a tremendous investment also. We also suggest that the Emergency Watershed Program (EWP) be provided with $20 million to allow the NRCS to provide rapid response in time of natural disaster. Congress increasingly talks of wanting to fund those investments in our nation's infrastructure that will sustain us in the future. Yet past budgets have regularly cut funding for the best of these programs. This makes absolutely no sense! We continue to read that we are in a period of budget surpluses, almost as if the Federal coffers were overflowing with cash, yet there is next to nothing for watershed protection and improvement. In this period of surplus (tax overpayments) and relative prosperity we can't seem to invest and re-invest in our vital watershed infrastructure. That is simply unconscionable. Isn't water quality and watershed management a national priority? We believe it is.

The issue of the current condition of those improvements constructed over the last fifty years with these watershed programs is a matter of great concern. Many of the nearly 10,500 dams that NRCS assisted sponsors build throughout the United States no longer meet current dam safety standards largely as a result of development, and need to be upgraded to current standards. A USDA study published in 1991 estimated that in the next ten years, $590 million would be needed to protect the installed works. Of that amount, $100 million would come from local sponsors as their operation and maintenance contributions. NRCS also conducted a more recent survey, and in just 22 states, about $540 million in rehabilitation needs were identified. That is the reason we are recommending starting with $60 million ($55 million for rehabilitation work and $5 million to start a more precise assessment of needs) for the work necessary to protect these installed structures, and commend Congress for their leadership in passing Public Law 106–472. Watershed project sponsors throughout the U.S. appreciate your leadership on this vital issue. We now have the authorization, and need the appropriations. If we don't start to pay attention to our rural infrastructure needs, the ultimate cost to society will only increase, and project benefits will be lost. This is a serious national issue. Page 5 of our testimony provides a summary of the structures constructed in each state using these federally assisted USDA programs. Since most of these were constructed in the

1950's, 60's, and 70's, and were originally designed for a 50-year life, it is apparent we need to look at their current condition. If we do some rehabilitation work to bring many of these older structures up to current health and safety standards, they will continue to provide benefits far into the future.

In addition to offering our thoughts on needed conservation program budget levels, we would like to express what we think will be concern with what the Administration's budget will propose in regard to watershed program funding in fiscal year 2002. While the President's budget will not be released until April 9th, we have read and heard enough in the news to make us believe watershed conservation programs are once again to be subject to reductions. If true, this is disturbing. We will analyze the President's budget when it is available, and provide your Subcommittee with our thoughts. Congress and the Administration need to recognize watershed natural resources conservation as a high national priority. It's only common sense.

There are a number of suggestions we would like to make concerning this very important legislation that we will be making to other committees. They will have budget implications. We believe the objectives of this legislation should be expanded to include more non-structural water quality practices, allow the law to provide assistance in developing rural water supplies (without water there is no rural development), and eliminate the current requirement that mandates that twenty percent of the total projects benefits be "directly related to agriculture" which can be very subjective and has the unintended effect of penalizing poor, small, rural communities many of which are minority communities.

The Coalition appreciates the opportunity to offer these comments regarding fiscal year 2002 funding for the water resource programs administered by USDA's Natural Resources Conservation Service (NRCS). With the "downsizing" the NRCS has experienced, we would be remiss if we did not again express some concern as to their ability to provide adequate technical support in these watershed program areas. NRCS technical staff has been significantly reduced and budget constraints have not allowed that expertise to be replaced. Traditional fields of engineering and economics are but two examples. We see many states where NRCS capability to support their responsibilities is seriously diminished. This is a disturbing trend that needs to be halted. This downsizing has a very serious effect on state and local conservation programs. Local Watershed and Conservation Districts and the NRCS combine to make a very effective delivery system for providing the technical assistance to local people—farmers, ranchers and rural communities—in applying needed conservation practices. But that delivery system is currently very strained! Many states and local units of government also have complementary programs that provide financial assistance to land owners and operators for installing measures that reduce erosion, improve water quality, and maintain environmental quality. The NRCS provides, through agreement with the USDA Secretary of Agriculture, "on the land" technical assistance for applying these measures. The delivery system currently is in place, and by downsizing NRCS, we are eroding the most effective and efficient coordinated means of working with local people to solve environmental problems that has ever been developed. Our system and its ability to produce food and fiber is the envy of the entire world. In our view, these programs are the most important in terms of national priorities.

We are also disappointed that the subcommittee has a practice of not accepting oral testimony from organizations such as the National Watershed Coalition. When we were allowed to make an oral presentation in the House, we were able to talk to subcommittee members who could ask us questions. It was a chance for them to actually talk with people doing the work on the land. That personal contact in both houses is now missing, and it would be easy to think that our written testimony may not be seriously considered. We hope you will reconsider this practice in future years, and again allow oral testimony.

The Coalition pledges its full support to you as you continue your most important work. Our Executive Director, Mr. John W. Peterson, who has over forty years experience in natural resource watershed conservation, is located in the Washington, DC area, and would be pleased to serve as a resource as needed. John's address is 9304 Lundy Court, Burke, VA 22015–3431, phone 703–455–6886 or 4387, Fax; 703–455–6888, email; jwpeterson@erols.com.

Thank you for allowing the National Watershed Coalition (NWC) this opportunity.

PREPARED STATEMENT OF THE NEW MEXICO INTERSTATE STREAM COMMISSION

SUMMARY

This Statement is submitted in support of appropriations for the Department of Agriculture's Colorado River Basin salinity control program. The salinity control program has not been funded at the level necessary to control salinity with respect to water quality standards of the basin states. Also, this failure to provide adequate funding negatively impacts the quality of water delivered to Mexico pursuant to Minute 242 of the International Boundary and Water Commission. Funding for the Environmental Quality Incentives Program (EQIP), from which the Department of Agriculture funds the salinity program, has been insufficient to fund needed salinity control measures. I urge that funding of more than $200,000,000 be appropriated for EQIP, with at least $12,000,000 designated to the Colorado River Basin salinity control program.

STATEMENT

The seven Colorado River Basin states, in response to the salinity issues addressed by Clean Water Act of 1972, formed the Colorado River Basin Salinity Control Forum. Comprised of gubernatorial appointees from the seven Basin states, the Forum was created to provide for interstate cooperation in response to the Clean Water Act, and to provide the states with information necessary to comply with Sections 303 (a) and (b) of the Act. I am New Mexico's representative to the Forum. The Forum has become the primary means for the seven Basin states to coordinate with Federal agencies and Congress to support the implementation of the salinity control program.

The Colorado River Basin salinity control program was authorized by Congress in the Colorado River Basin Salinity Control Act of 1974. Congress amended the Act in 1984 to give new responsibilities to the Department of Agriculture. While retaining the Department of the Interior as the lead coordinator for the salinity control program, the amended Act recognized the importance of the Department of Agriculture operating under its authorities in meeting the objectives of the salinity control program. Many of the most cost-effective projects undertaken by the salinity control program have occurred since implementation of Department of Agriculture's authorization for the program.

The Bureau of Reclamation is currently completing studies on the economic impacts of the salinity of the Colorado River in the United States. Reclamation's study indicates that damages in the United States may soon be approaching $1 billion per year. It is essential to the cost-effectiveness of the salinity control program that Department of Agriculture salinity control projects be funded for timely implementation to protect the quality of Colorado River Basin water delivered to the Lower Basin States and Mexico.

Congress concluded, with the enactment of the Federal Agriculture Improvement and Reform Act of 1996 (FAIRA), that the salinity control program could be most effectively implemented as one of the components of the Environmental Quality Incentives Program (EQIP). The salinity control program has not been funded since the enactment of FAIRA at a level adequate to ensure that the Basin State-adopted and Environmental Protection Agency approved water quality standards in the Colorado River will be honored with respect to total dissolved solids (i.e., salinity). Appropriations for EQIP have not been sufficient to prevent salt loading by irrigated agriculture in the Upper Colorado River Basin from impacting the quality of water delivered to the downstream states, nor to Mexico pursuant to Minute No. 242 of the International Boundary and Water Commission, United States and Mexico.

EQIP subsumed the salinity control program without giving adequate recognition to the responsibilities of the Department of Agriculture to implement salinity control measures per Section 202 (c) of the Colorado River Basin Salinity Control Act. The EQIP evaluation and project ranking criteria target small watershed improvements that do not recognize that water users hundreds of miles downstream are significant beneficiaries of the salinity control program. Proposals for EQIP funding are ranked in the states of Utah, Wyoming and Colorado under the direction of the respective State Conservationists without consideration of those downstream, particularly out-of-state, benefits. Irrigated agriculture in the Upper Basin realizes significant local benefits of the salinity control program and agricultural producers have succeeded in submitting cost-effective proposals to the State Conservationists. However, funding for needed salinity control projects has been limited because the full measure of the salinity control program benefits has not been considered when prioritizing funding allocated to salinity control projects and to all other programs administered by each state's autonomous office.

The Department of Agriculture's Natural Resources Conservation Service (NRCS), following protracted urging by the Basin states, has concluded as a result that the salinity control program is different than the small watershed approach of the EQIP program. The watershed for the salinity control program stretches almost 1200 miles, from the headwaters of the river through the salt-laden soils of the Upper Basin to the river's termination at the Gulf of California in Mexico. NRCS is to be commended for its efforts to appoint a salinity program coordinator to work with each NRCS state office and to designate the Colorado River Basin an "area of special interest" including a special fund designation for the salinity control program.

The Basin states were led to believe by Congressional staff when the EQIP program was created that the $200,000,000 annual Commodity Credit Corporation (CCC) borrowing authority given to the Secretary would ensure that through the year 2002 at least the requested amount of salinity control funding would be expended through the EQIP program. The Basin states, including New Mexico, have been very dismayed that funding for EQIP has been inadequate for this most important nationwide program. Several years of inadequate Federal funding for the Department of Agriculture have resulted in the Forum finding that the salinity control program needs to be accelerated to protect the Colorado River water quality standards for salinity and to maintain the water quality criteria of those standards. Since the designation by the Department of Agriculture of the Colorado River salinity control program as an area of special interest, about $4.5 million annually has been earmarked for the program. This amount is in sharp contrast to the $12 million annual funding required for the USDA portion of the plan of implementation of the Colorado River water quality standards for salinity, as adopted by the Basin States and approved by EPA.

The Basin States added about $1.5 million in up-front cost sharing and local farms contributed an estimated $2 million to match the NRCS funds in the previous Federal fiscal year. State and local cost sharing is triggered by the Federal appropriation. The entire effort last year was funded at only about 40 percent of program needs. The requested funding of $12 million for fiscal year 2002 will continue to be needed each year for at least the next few fiscal years.

The Department of Agriculture has indicated that a more adequately funded EQIP program would result in more funds being allocated to the salinity program. The Basin states have cost sharing dollars available to participate in on-farm salinity control efforts. The agricultural producers in the Upper Basin are willing to cost-share their portion and waiting for adequate funding for their applications to be considered. The Department of Agriculture projects have proven to be the most cost-effective component of the salinity control program. However, the prior Administration and Congressional funding support has dramatically declined despite increasing damages from the salinity of the Colorado River.

I urge the Congress to appropriate at least $200,000,000 from the CCC in fiscal year 2002 for EQIP. Also, I request that Congress advise the Administration that $12,000,000 of the appropriation is to be designated for the Colorado River Basin salinity control program.

Finally, I request that adequate funds be appropriated for technical assistance and education activities at the local level, rather than requiring the NRCS to borrow funds from CCC for the direly needed support functions. Recent history has shown that inadequate funding for technical assistance and education activities of the NRCS has been a severe impediment to successful implementation of the salinity control program. The Basin States parallel funding program, implemented as a means of cost sharing with NRCS, expends 40 percent of the states' funds available to meet the needs of NRCS for technical assistance and education activities. I urge the appropriation of adequate funds for these essential activities, and that the NRCS not be directed to borrow funds for these uses from the CCC.

PREPARED STATEMENT OF THE NEZ PERCE TRIBAL EXECUTIVE COMMITTEE

The Nez Perce Tribe requests the following funding amounts for fiscal year 2002, which are specific to the Nez Perce Tribe:

—$221,575 through the United States Department of Agriculture, Animal and Plant Health Inspection Service for the biological control of noxious weeds for implementation and monitoring.

The Tribe urges support for the full and adequate funding of Tribal programs through the Department of the Interior fiscal year 2002 budget, with the specific request discussed below.

NEZ PERCE BIOLOGICAL CONTROL CENTER FUNDING: USDA, $221,575

The Nez Perce Tribe established the Bio-Control Center in 1999 thanks to grant funds from the USDA-Business Cooperative Services program. Since its inception, the Center has developed partnerships and networks to coordinate the biological control of weeds through the State of Idaho and worked collaboratively with the USDA to develop and implement monitoring protocols. The Center has been instrumental in providing biological control agent releases and monitoring under contractual agreements with private landowners and Agencies throughout the region.

The biological control of weeds uses the weeds' natural enemies to reduce the weeds' ability to compete with the desired vegetation. Biological control techniques have been used in the West since 1940 to reduce weed density on range and wildlands where cultural and chemical control methods are not economically feasible or practical. This allocation would enable the Tribe to rear and provide biological control organisms to private and public entities at no cost, to monitor the impacts, develop technology transfer materials, and host seminars for all interested parties.

For fiscal year 2002, the Nez Perce Tribe requests that Congress earmark $221,575 from the USDA Animal Plant Health Inspection Service to establish nurseries to increase biological control availability, distribute biological control organisms throughout weed infestation areas, monitor the impacts, and provide annual technology transfer seminars to Cooperative Weed Management Area partners. This program will be developed in coordination with USDA, local universities, and regional experts.

PREPARED STATEMENT OF THE NORTHWEST INDIAN FISHERIES COMMISSION

Mr. Chairman and Members of the Committee, I am Billy Frank, Jr., Chairman of the Northwest Indian Fisheries Commission (NWIFC), and on behalf of the twenty-Western Washington member Tribes, I submit this request for appropriations to support the research, sanitation and marketing of Tribal shellfish products. We request the following:

—$500,000 to support commercial harvests costs which will assist the tribes in fulfilling the demands for their shellfish products both domestically and abroad;
—$1,000,000 to support water and pollution sampling, sampling and research for paralytic shellfish poisoning and coordination of research projects with State agencies; and,
—$1,000,000 to support data gathering at the reservation level for the conduct of shellfish population surveys and estimates.

TREATY SHELLFISH RIGHTS

As with salmon, the tribes' guarantees to harvest shellfish lie within a series of treaties signed with representatives of the Federal government in the mid-1850s. In exchange for the peaceful settlement of what is today most of Western Washington, the tribes reserved the right to continue to harvest finfish and shellfish at their usual and accustomed grounds and stations. The tribes were specifically excluded from harvesting shellfish from areas "staked or cultivated" by non-Indian citizens. Soon after they were signed, the treaties were forgotten or ignored.

The declining salmon resource in the Pacific Northwest negates the legacy Indian people in Western Washington have lived by for thousands of years. We were taught to care for the land and take from it only what we needed and to use all that we took.

We depended on the gifts of nature for food, trade, culture and survival. We knew when the tide was out, it was time to set the table because we live in the land of plenty; a paradise complete. Yet, because of the loss of salmon habitat which is attributable to overwhelming growth in the human population, a major pacific coastal salmon recovery effort ensues. Our shellfish resource is our major remaining fishery.

At least ninety types of shellfish have been traditionally harvested by the Tribes in Western Washington and across the continent Indian people have called us the fishing Tribes because of our rich history of harvesting and caring for finfish and shellfish. Our shellfish was abundant and constituted a principal resource of export, as well as provided food to the Indians and the settlers which greatly reduced the living expenses.

Clams, crab, oysters, shrimp, and many othern species were readily available year round. The relative ease with which large amounts could be harvested, cured, and stored for later consumption made shell fish an important source of nutrition.

Shellfish remain important for subsistence, economic, and ceremonial purposes. With the rapid decline of many salmon stocks, due to habitat loss from western

Washington's unrelenting populous growth, shellfish harvesting has become a major factor in tribal economies.

The tribes have used shellfish in trade with the non-Indian population since the first white settlers came into the region a century and a half ago. Newspaper accounts from the earliest days of the Washington Territory tell of Indians selling or trading fresh shellfish with settlers. Shellfish harvested by members of western Washington's Indian tribes is highly sought after throughout the United States and the Far East. Tribal representatives have gone on trade missions to China and other Pacific Rim nations where Pacific Northwest shellfish—particularly geoduck—is in great demand. Trade with the Far East is growing in importance as the tribes struggle to achieve financial security through a natural resources-based economy.

Treaty language pertaining to tribal shellfish harvesting included this section:

"The right of taking fish at usual and accustomed grounds and stations is further secured to said Indians, in common with all citizens of the United States; and of erecting temporary houses for the purposes of curing; together with the privilege of hunting and gathering roots and berries on open and unclaimed lands. Provided, however, that they not take shell-fish from any beds staked or cultivated by citizens."

TREATY WITH THE S'KLALLAM, JANUARY 26, 1855

In exchange for the peaceful settlement of what is today most of western Washington, the tribes reserved the right to continue to harvest finfish and shellfish at all of their usual and accustomed grounds and stations. The tribes were specifically excluded from harvesting shellfish from areas "staked or cultivated" by non-Indian citizens.

Tribal efforts to have the Federal government's treaty promises kept began in the first years of the 20th Century when the United States Supreme Court ruled in *U.S.* v. *Winans*, that where a treaty reserves the right to fish at all usual and accustomed places, a state may not preclude tribal access to those places.

Sixty years later, the tribes were again preparing for battle in court. After many years of harassment, beatings and arrests for exercising their treaty-reserved rights, western Washington tribes took the State of Washington to Federal court to have their rights legally re-affirmed. In 1974, U.S. District Court Judge George Boldt ruled that the tribes had reserved the right to half of the harvestable salmon and steelhead in western Washington.

The "Boldt Decision," which was upheld by the U.S. Supreme Court, also re-established the tribes as co-managers of the salmon and steelhead resources in western Washington.

As a result of this ruling, the tribes became responsible for establishing fishing seasons, setting harvest limits, and enforcing tribal fishing regulations. Professional biological staffs, enforcement officers, and managerial staff were assembled to ensure orderly, biologically-sound fisheries.

Beginning in the late 1970s, tribal and state staff worked together to develop comprehensive fisheries that ensured harvest opportunities for Indian and non-Indian like, and also preserved the resource for generations to come.

It was within this new atmosphere of cooperative management that the tribes sought to restore their treaty-reserved rights to manage and harvest shellfish from all usual and accustomed areas. Talks with their state counterparts began in the mid-1980s, but were unsuccessful. The tribes filed suit in Federal court in May 1989 to have their shellfish harvest rights restored.

The filing of the lawsuit brought about years of additional negotiations between the tribes and the state. Despite many serious attempts at reaching a negotiated settlement, the issue went to trial in May 1994.

In 1994, District Court Judge Edward Rafeedie upheld the right of the treaty tribes to harvest 50 percent of all shellfish species in their Usual and Accustomed fishing areas. Judge Rafeedie also ordered a shellfish Management Implementation Plan that governs tribal/state co-management activities.

After a number of appeals, the U.S. 9th Circuit Court of Appeals let stand Rafeedie's ruling in 1998. Finally, in June 1999, the U.S. Supreme Court denied review of the District court ruling, effectively confirming the treaty shellfish harvest right.

ASSIST THE TRIBES IN FULFILLING THE DEMANDS FOR THEIR SHELLFISH PRODUCTS, $500,000

Shellfish harvested by members of Western Washington's Indian tribes is highly sought after throughout the United States and the Far East. We request $500,000 which will assist Tribes in promoting our shellfish products, in both domestic and

international markets. We are now at a point in time when telecommunicating is both cost effective and timely when marketing products. Tribal fishers are not capable of supporting such an effort individually, but, could collectively benefit if such a network could be developed through the Northwest Indian Fisheries Commission and the Northwest Indian College in Bellingham, Washington. This institution is capable of providing the technology needed to implement such a marketing program for Tribal shellfish products.

WATER AND POLLUTION SAMPLING, SAMPLING AND RESEARCH FOR PARALYTIC SHELLFISH POISONING AND COORDINATION OF RESEARCH PROJECTS WITH STATE AGENCIES, $1,000,000

Shellfish growing areas are routinely surveyed for current or potential pollution impacts and are classified based on the results of frequent survey information. No shellfish harvest is conducted on beaches that have not been certified by the tribes and the Washington Department of Health. Growing areas are regularly monitored for water quality status and naturally-occurring biotoxins to protect the public health.

However, both Tribal and non-Indian fisheries have been threatened due to the lack of understanding about the nature of biotoxins, especially in subtidal geoduck clams. Research targeted to better understand the nature of biotoxins could prevent unnecessary illness and death that may result from consuming toxic shellfish, and could prevent unnecessary closure of tribal and non-Indian fisheries.

DATA GATHERING AT THE RESERVATION LEVEL FOR THE CONDUCT OF SHELLFISH POPULATION SURVEYS AND ESTIMATES, $1,000,000

Very little current data and technical information exists for many of the shellfish fisheries now being jointly managed by state and Tribal managers. This is particularly true for many free-swimming and deep-water species. This lack of information can not only impact fisheries and the resource as a whole, but makes it difficult to assess 50/50 treaty sharing arrangements. Additionally, intertidal assessment methodologies differ between state and tribal programs, and can lead to conflicts in management planning.

Existing data systems must be enhanced for catch reporting, population assessment and to assist enhancement efforts. Research on methodology for population assessment and techniques also is critical to effective management.

Onsite beach surveys are required to identify harvestable populations of shellfish. Regular monitoring of beaches also is necessary to ensure the beaches remain safe for harvest. Additional and more accurate population survey and health certification data is needed to maintain these fisheries and open new harvest areas. This information will help protect current and future resources and provide additional harvest opportunities.

CONCLUSION

We ask that you give serious consideration to our needs. We are available to discuss these requests with committee members or staff at your convenience.

Thank you.

PREPARED STATEMENT OF THE NATIONAL FIRE ANT TASK FORCE AND THE OKLAHOMA FIRE ANT RESEARCH AND MANAGEMENT ADVISORY COMMITTEE TASK FORCE

I am an agriculture producer, serve as a member of the National Fire Ant Task Force and the Oklahoma Fire Ant Research and Management Advisory Committee task force. Our national purpose is to develop and promote research that can be flexible, adaptable to different climatic regions of the country, sustainable but not chemical discouraging, but hopefully results in the use of less chemicals and less expense to the property owner while accomplishing the task at hand.

From a state perspective, our purpose is to determine what can be done to address the continued growth of fire ants in our state with state resources and how that we might cooperate with other multi-state and national ventures to address the problem. This testimony is on behalf of the committee and myself as an impacted agriculture producer and how the research funding or lack thereof impacts locally within the states. I would like to discuss briefly the continued expansion of the range of imported fire ants in this country, the continued economic and social impact of such expansion and the resulting need for research funding.

It is an exciting time for fire ant research because for the first time since the pest entered the United States, we have hope for stopping the spread and controlling its

march across the south and soon to reach middle America. Our hope lies with biocontrol methods coupled with other methods of control. But, without significant research funds to the basic research effort all efforts may soon be lost. The USDA-Agricultural Research Service charged with the mission of fire ant research has not seen a congressional increase in 30 years for this effort. Our request is that you increase the research base of the Imported Fire Ant Unit at the Center for Medical, Agricultural & Veterinary Entomology in Gainesville, Florida by a total of $900,000. The proposed Florida allocation would be $600,000 above the current level which would just return the location to where it was 14 months ago restoring two FTE's. The remaining $300,000 would be directed to the Mississippi location to further develop efforts there that tie back to the Gainesville activity.

We appreciate the final conference committee funding of $325,000 already included by Senate leadership for the last two years that was directed to Mississippi. However, the available base in the Agricultural Research Service for this research mission has actually been dropping steadily and we are in a position today where the critical mass of the few experienced scientists headquartered at Gainesville, currently only 4.5 FTE's, now available is about to be even further reduced. We believe investing in the basic applied research with ARS will compliment and enhance the specially directed funds.

Why is Oklahoma so interested in seeing funding to a Florida location? As an emerging state with fire ant populations growth, we are interested in stopping the number of counties that are impacted each year. We have worked with cooperative research in Oklahoma with ARS and are working toward an area wide research effort to be conducted in Florida, Oklahoma , Texas and Mississippi. We are tired of losing livestock, other economic impacts and most importantly our elderly and children being attacked. With the rapid rate of expansion and the proven ability to survive in northern reaches of the projected expansion area, in just a short time they will most likely be in the District of Columbia—on the Capitol grounds, the White House lawn, other government buildings and private properties. For seven consecutive years, ants have been found north of Washington in the Bowie, Maryland area.

While fire ants have been around for decades as a result of importation into Alabama from South America, this non-native pest has spread further and caused far more destructive damage than ever envisioned. Just a few decades ago, it was never anticipated that these pests would expand so far north and encompass so many states and such a great population. Yet, today there are no signs of any slow-down and the impacted constituencies continue to grow. The red imported fire ant now infests and requires APHIS quarantine in over 318 million acres in 12 contiguous states plus counties with firm establishment in California and New Mexico—now under quarantine—Maryland, and occasional occurrences in Arizona, Nevada, West Virginia, and Kentucky.

In 1985, Oklahoma's experience with fire ants began with the first mounds discovered in the Oklahoma-Arkansas border county of Leflore. Since that time twelve Oklahoma Counties now are classified as "Red Imported Fire Ant Established." Another 15 counties have fire ant activity but that are not yet fully established. Some predicted that fire ants would never expand further than the southern Oklahoma border of the Red River, yet today Tulsa and Payne Counties in northern Oklahoma have recorded finding fire ants—the same latitude as the U.S. Capitol. Both counties are one and two counties south of the Kansas border. In the State of Arkansas they are near the Missouri border and in Tennessee they have been found near the Kentucky border.

My interest in addressing the imported fire ant issue is not only from a professional point of representing the farm and rural membership of Oklahoma Farmers Union but also a very personal one. My family and I farm and ranch along the Red River in the southern Oklahoma counties of Love and Jefferson. In the last two years we have seen a literal proliferation of this pest to the point of destroying pasture land and harming farm equipment with their huge mounds.

It even becomes more personal when my 5 year-old daughter is simply playing and the fire ants attack her—inside the house. Just two counties over a child in his own bed was attacked hundreds of time while he lay sleeping. Producers and other citizens alike experience the loss of electrical water heaters, air conditioning and heating units when fire ants gather in such numbers that they cause electrical shorts resulting in property loss. It is quite common for the local Rural Electric Cooperatives to experience losses on their supply lines because of the pests.

From an agricultural economic standpoint, fire ants pose an immediate and present danger to our family farm and others just like us who are in the hay production business. Because our county is quarantined, we must sell our hay only to other counties where fire ants are established. This limits our available markets. We have just come through three of the worst droughts in U.S. history. Three years

ago, many producers in Oklahoma received hay from Kansas, Colorado, Missouri and Arkansas. Imagine if the drought had been to the north and farmers depended on southern producers for their supply. Although we would have had hay, we would have been unable to provide a hay supply to our neighbors to the north because of fire ant quarantines. God forbid that such should ever happen. This has occurred when hay from North Carolina was shipped to drought areas of West Virginia and infestation resulted. Our own state department of agriculture is now aggressively working to check the border to ensure that product will not cross the border that is infested. Each load must be fire ant free. We applaud this effort but realize that research provides the only real answer to our plight.

I would point out that the Southern United States, which so far has been greatest impacted, also has some of the most vulnerable citizens to fire ant stings. Since the South attracts more retirees than most parts of the country, the numbers alone make the elderly a prime target of fire ants. Attacks on the elderly, with weakened immune systems, in nursing homes and hospitals is coming far too often. Last year an incapacitated lady in Florida died from 1,600 stings while in a nursing home. Another of the most vulnerable—our children—have increasingly been evacuated from schools so the properties can be treated for fire ants. Other public properties around the United States such as parks, lakes and zoos are becoming inundated. Peanut farmers in Southern Oklahoma now think twice before they reach to repair a digger or combine that can be covered with fire ants that thrive in the sandy peanut soils. Three years ago, over 500 farmers in Bryan County gathered to talk about fire ants because they had been impacted by the rapid expansion of the fire ant. Producers want answers and quickly.

While there has been extensive research work on baits and other chemical applications dealing with fire ants, it appears that these solutions only will help curtail and not eradicate or bring under control this pest. These options are also very expensive and for the chemical application process to work everyone must be willing to apply the solution repeatedly. We know that this is an unrealistic and expensive solution for either the private or government sector.

What has shown the most promise in the last four years are biological control methods that can be applied in conjunction with chemical applications for what could be an effective permanent management solution. I am particularly excited about the development of a national strategy that will for the first time strategically address this pest since it first came to the shores of Alabama in the 1920's. Such a strategy has been set forth by the Southern Legislative Conference, comprised of state legislators across the south, and the scientists and research leaders of the United States Department of Agriculture's Agricultural Research Service. I am pleased to have had the opportunity to have participated in the development of this initial plan.

USDA–ARS research in Gainesville, Florida, on the development and release of candidate self-sustaining bio-control agents, resulted in an Agreement in 1998 with the Southern Legislative Conference, representing the elected state officials in the southern 15 states. Based on the successful survival of the early releases of the two bio-control agents in Gainesville, a formal agreement with the SLC was established. Participating states provided limited state resources to assist the Gainesville laboratory in increasing production of bio-control agents for limited field trials in their states. By 2000, participating states included Oklahoma, Texas, Alabama, Georgia, South Carolina, North Carolina, and Louisiana. Other existing collaborations provided release opportunities in Arkansas, Mississippi, Florida and Tennessee. From 1998–2000, phorid flies were released and established in Florida, Mississippi, Louisiana, Texas, Alabama, North Carolina, and South Carolina. In Florida, where releases began in 1997, populations expanded from 5 mound locations (1997–98) to 50 square miles by 1999, and to 1,000 square miles by December, 2000. Concurrent paired field studies (72 sites total) examining the impact on fire ant populations will continue through 2002.

Also from 1998–2000, the disease agent of fire ants was released at selected sites (5 mounds each) in Florida, Oklahoma, Arkansas, Alabama, Tennessee, North Carolina, South Carolina, Mississippi, and Louisiana. Subsequent infections was detected in Florida, Oklahoma, Arkansas, Alabama, North Carolina, South Carolina, Georgia, Mississippi, and Louisiana. In Florida, infections spread among mounds at the initial release site, and resulted in a 40–60 percent reduction in fire ant populations in the affected area.

In 2000, the first field test of an integrated management strategy for fire ants was initiated at a military installation in South Carolina. With supplemental temporary funding to ARS from EPA, and commitment of in-kind resources from the U.S. Army, the South Carolina National Guard and Clemson University, a central "near-zero tolerance" area was treated with traditional pesticide applications while sur-

rounding areas were inoculated with phorid flies and the disease agent of fire ants. At 16 weeks, assessments indicated a 96 percent reduction in the near-zero tolerance area, and the successful establishment of both bio-control agents. Assessments continue.

Also in 2000, USDA–APHIS and the National Biological Control Institute, canvassed state departments of agriculture, and found that bio-control of fire ants was the single highest priority for invasive insect species. Subsequently, APHIS and ARS partnered with the State of Florida Department of Agriculture and Consumer Services to initiate mass-rearing of phorid flies at state facilities in Gainesville, Florida, for subsequent release in the infested states. The agreement was finalized in February, 2001. Releases will begin by late summer.

As a result of the outcome of the ARS, DOD and SLC leadership in the South Carolina IPM project and based on the merits of the proposal, a new peer reviewed proposal funded internally will expand such tests to Oklahoma, Texas and Florida initially. This 4–5 year temporary project will focus on cattle and improved pasture regions. Of ten projects reviewed this was the one funded in fiscal year 2001. I stress this to demonstrate the confidence placed in the research through peer review. However exciting this funded project may be, it has no impact on the base funds to maintain—let alone increase—much needed basic research.

The bottom line is to develop self-sustaining biological control agents for the imported fire ant. Farmers, and particularly disadvantaged farmers in the southern and western states, need relief from fire ants, but traditional baits and pesticides are too costly and require frequent application to manage the invader. In a survey of Texas cattle producers, an estimated $67 million per year in losses was due to fire ants. The ant also will kill chicks and adversely affects the yields of several important agricultural crops. The need for self-sustaining bio-control and a pesticide-reduced integrated pest management approach is critical. Besides being expensive, traditional chemical pest management strategies fail to provide sustained management of the pest without continuous re-applications of insecticides, which not only kill the imported fire ant but basically sterilize the sites of all living invertebrates, continuing the disruption of ecological balance originally upset by the invading fire ant. Because of wide-spectrum toxicity, adverse environmental impact and economic cost, chemical treatment strategies are not suitable for large tracts of land such as pastures in sustained management.

The goal of the National Fire Ant Strategy is to develop customized regional management strategies to reduce the imported fire ant infestations to levels below economic thresholds on agricultural lands and large acreage tracts. Such is the case in South America, the native range of fire ants where populations are only 20 percent of those in the U.S. In fact, fire ants in that country are not generally considered a pest. A second purpose is to eliminate fire ants as a nuisance or health threat in local urban high-risk environments. Biologically-based technologies are a major component. A systematic approach will be developed to optimize integrated management strategies with biologically-based technologies as a major component. Coordination has occurred among Federal, State and private sectors to ensure that current and emerging technologies are evaluated for regional effectiveness, and that they are rapidly implemented.

Through coordinated Federal, State and private sector efforts, the strategy includes the release and monitoring of candidate biocontrol organisms for regional comparisons, development of new biologically-based technologies and the subsequent "fast tracking" of the implementation of successful tools. With the use of the latest technology applications, customized regional, biologically based strategies will be developed. Precision targeting for maximum local elimination in high risk and high priority areas with existing bait or chemical technologies will be redefined. The final direction of the work plan strategy in accomplishing the objectives is to package the technologies and strategies for optimized integrated pest management.

Biological methods for treatment of fire ants appears to be working! Two bio-control agents are now available with 25 remaining in South America with potential for reducing populations in the U.S. While it is exciting that we are finally making more progress on fire ants in the last few years than we have for the entire time that fire ants has plagued this country—it requires one key ingredient—adequate funding. Three years ago we began an effort to see increased funding. Based on the national strategy as developed, funding of $2 million would be needed on an annual basis to apply the strategy that shows so much promise and to "fast track" the results and technologically transfer that information to the private sector for application. The proposed increase of $900,000 above the current base restores lost positions and strengthens the program.

We would strongly encourage you to provide the appropriate funding of $2 million annually to Gainesville by adding $900,00 to the ARS budget base for such a nation-

ally biologically-based integrated management strategy that includes a partnership of both USDA–ARS, state land-grant universities, state legislatures and the private sector.

Thank you again for this opportunity to submit testimony regarding the need for additional appropriations for fire ant research.

PREPARED STATEMENT OF THE ORGANIZATION FOR THE PROMOTION AND ADVANCEMENT OF SMALL TELECOMMUNICATIONS COMPANIES

SUMMARY OF REQUEST

The Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO) seeks the Subcommittee's support for fiscal year 2002 loan levels for the telecommunications loans program and Rural Telephone Bank (RTB) program administered by the Rural Utilities Service (RUS) in the following amounts:

[In millions of dollars]

5 percent hardship loans	75
Treasury rate loans	300
Guaranteed loans	120
RTB loans	175

In addition, OPASTCO requests the following action by the Subcommittee: (1) removal of the statutory 7 percent cap on Treasury rate loans for fiscal year 2002; (2) removal of previous appropriations act language limiting the retirement of Class A stock of the RTB to 5 percent; (3) a prohibition on the transfer of unobligated RTB funds to the general fund of the Treasury; and (4) funding of the distance learning and telemedicine grant and loan program at sufficient levels.

GENERAL

OPASTCO is a national trade association of more than 500 independently owned and operated telecommunications carriers serving rural areas of the United States. Its members, which include both commercial companies and cooperatives, together serve over 2.5 million customers in 42 states. Approximately half of OPASTCO's members are RUS or RTB borrowers.

Perhaps at no time since the inception of the RUS (formerly the REA) has the telecommunications loans and RTB programs been so vital to the future of rural America. The telecommunications industry is at a crossroads, both in terms of technology and public policy. Advances in telecommunications technology in recent years will deliver on the promise of a new "information age." The Federal Communications Commission's (FCC) ongoing implementation of the landmark Telecommunications Act of 1996, as well as modernization resulting from prior statutory changes to RUS's lending program, will expedite this transformation. However, without continued support of the telecommunications loans and RTB programs, rural telephone companies will be hard pressed to build the infrastructure necessary to bring their communities into this new age, creating a bifurcated society of information "haves" and "have-nots."

Contrary to the belief of some critics, RUS's job is not finished. Actually, in a sense, it has just begun. We have entered a time when advanced services and technology—such as broadband fiber optics, high-speed packet and digital switching equipment, and digital subscriber line technology—are expected by customers in all areas of the country, both urban and rural. Unfortunately, the inherently higher costs of upgrading rural networks, both for voice and data communications, has not abated. Rural telecommunications continues to be more capital intensive and involves fewer paying customers than its urban counterpart. RUS borrowers average only 6.3 subscribers per route mile versus 130 subscribers per route mile for large local exchange carriers. In order for rural telephone companies to modernize their networks and provide their customers with advanced services at reasonable rates, they must have access to reliable low-cost financing.

The relative isolation of rural areas increases the value of telecommunications services for these citizens. Telecommunications enables applications such as distance learning, telemedicine, and high-speed Internet connectivity that can alleviate or eliminate some rural disadvantages. Telecommunications can also make rural areas attractive for some businesses and result in revitalization of the rural economy. For example, businesses such as telemarketing and tourism can thrive in rural areas, and telecommuting can become a realistic employment option.

While it has been said many times before, it bears repeating that RUS's telecommunications loans and RTB programs are not grant programs. The funds loaned by RUS are used to leverage substantial private capital, creating public/private partnerships. For a very small cost, the government is encouraging tremendous amounts of private investment in rural telecommunications infrastructure.

Most importantly, the programs are tremendously successful. Borrowers actually build the infrastructure and the government gets paid back with interest. There has never been a default in the history of the telecommunications lending programs.

THE TELECOMMUNICATIONS ACT OF 1996 HAS HEIGHTENED THE NEED FOR THE TELECOMMUNICATIONS LOANS AND RTB PROGRAMS

The FCC's implementation of the Telecommunications Act of 1996 will only increase rural telecommunications carriers' need for RUS assistance in the future. The forward-looking Act defines universal service as an evolving level of telecommunications services that the FCC must establish periodically, taking into account advances in telecommunications and information technologies and services. As anticipated, in December 2000, the FCC convened a Federal-State Joint Board to begin reviewing the definition of the services supported by the universal service mechanism. While the competitive environment engendered by the 1996 Act may offer the means of meeting this evolving definition in urban areas, rural and high-cost areas have less potential for economically sound competitive alternatives. RUS has an essential role to play in the implementation of the law, as it will compliment new funding mechanisms established by the FCC and enable rural America to move closer to achieving the federally mandated goal of rural/urban service and rate comparability.

At present, considerable regulatory uncertainty exists for rural telecommunications carriers as several critical FCC proceedings implementing the 1996 Act remain unresolved. These include fundamental changes to the universal service and access charge systems and the procedures incumbent carriers use to separate their costs between the Federal and State jurisdictions. In addition, uncertainty exists as to whether rural incumbent carriers will be able to recover the costs of the extensive additional regulatory obligations and potential broadband deployment demands placed on them. If these outstanding issues are resolved in a piecemeal fashion and/or with a strong bias toward new entrants, rural incumbent carriers with universal service obligations could be hampered in their ability to modernize their networks and provide quality, affordable service to all of their customers. Managed coordination of existing proceedings, as proposed in the Petition for Rulemaking of the LEC Multi-Association Group (MAG Plan, filed with the FCC Oct. 20, 2000), is necessary if the Commission is to preserve Congress's public policy goals of affordable rates and access to an evolving telecommunications network for all Americans. Adoption of the MAG Plan would ensure that all of the goals of the 1996 Act—including universal service, an even playing field for competition, and deregulation—are realized in rural areas.

A $75 MILLION LOAN LEVEL SHOULD BE MAINTAINED FOR THE 5 PERCENT HARDSHIP LOAN PROGRAM

One of the most vital components of RUS's telecommunications loans program is the 5 percent hardship loan program. These loans are referred to as hardship loans for good reason: They provide below-Treasury rate financing to telephone companies serving some of the most sparsely populated, highest cost areas in the country. The commitment these companies have to providing modern telecommunications service to everyone in their communities has made our nation's policy of universal service a reality and, in many cases, would not have been possible without RUS's hardship loan program. Companies applying for hardship loans must meet a stringent set of eligibility requirements and the projects to be financed are rated on a point system to ensure that the loans are targeted to the most needy and deserving. In fiscal year 2001, the government subsidy needed to support a $75 million loan level was under $7.8 million. Given the necessity of this indispensable program, it is critical that the loan level be maintained at $75 million for fiscal year 2002.

REMOVAL OF THE 7 PERCENT CAP ON TREASURY RATE LOANS SHOULD BE CONTINUED

With regard to RUS's Treasury rate loan program, OPASTCO supports the removal of the 7 percent ceiling on these loans for fiscal year 2002. This Subcommittee appropriately supported language in the fiscal year 1996 Agriculture Appropriations Act to permit Treasury rate loans to exceed the 7 percent per year ceiling contained in the authorizing act. The language has been continued in each subsequent year. Were long-term interest rates to exceed 7 percent, adequate subsidy would not be

available to support the Treasury rate loan program at the authorized levels. Accordingly, OPASTCO supports the continuation of this language in the fiscal year 2002 appropriations bill in order to prevent potential disruption to this important program.

A $175 MILLION LOAN LEVEL SHOULD BE MAINTAINED FOR THE RTB PROGRAM

As previously discussed, the RTB's mission has not been completed as rural carriers continue to rely on this important source of supplemental financing in order to provide their communities with access to the next generation of telecommunications services that are essential for their survival. In fiscal year 2001, the government subsidy necessary to fund a $175 million loan level was only $2.59 million, or 1.48 percent of the capital that the program generates. The ongoing need for the RTB program makes it essential that a $175 million loan level be maintained for fiscal year 2002.

THE 5 PERCENT LIMITATION ON THE AMOUNT OF CLASS A STOCK OF THE RTB THAT CAN BE RETIRED SHOULD BE REMOVED

OPASTCO believes it would be appropriate to remove or change the language contained in previous agriculture appropriations acts restricting the retirement of Class A stock of the RTB to 5 percent. This restriction is an impediment to the timely privatization of the RTB, as envisioned by the Rural Electrification Act of 1936. OPASTCO further suggests that Congress, the Administration, and the RTB Board of Directors develop a schedule and plan for privatizing the bank in a timely manner. OPASTCO believes that the timely privatization of the RTB is of great importance to rural telecommunications carriers as they seek to upgrade their networks for the provision of advanced services to their customers.

THE PROHIBITION ON THE TRANSFER OF ANY UNOBLIGATED BALANCE OF THE RTB LIQUIDATING ACCOUNT TO THE TREASURY AND REQUIRING THE PAYMENT OF INTEREST ON THESE FUNDS SHOULD BE CONTINUED

OPASTCO urges the Subcommittee to reinstate the language introduced in the fiscal year 1997 Agriculture Appropriations Act, and continued in the years following, prohibiting the transfer of any unobligated balance of the RTB liquidating account to the Treasury or the Federal Financing Bank which is in excess of current requirements and requiring the payment of interest on these funds. As a condition of borrowing, the statutory language establishing the RTB requires telephone companies to purchase Class B stock in the bank. Once all loans are completely repaid, a borrower may then convert its Class B stock into Class C stock. Thus, all current and former borrowers maintain an ownership interest in the RTB. As with stockholders of any concern, these owners have rights which may not be abrogated. The Subcommittee's inclusion of the aforementioned language into the fiscal year 2002 appropriations bill will ensure that RTB borrowers are not stripped of the value of this required investment.

THE DISTANCE LEARNING AND TELEMEDICINE PROGRAM SHOULD CONTINUE TO BE FUNDED AT ADEQUATE LEVELS

In addition to RUS's telecommunications loans and RTB programs, OPASTCO supports adequate funding of the distance learning and telemedicine grant and loan program. This sensible investment allows rural students to gain access to advanced classes which will help them prepare for college and jobs of the future. Also, rural residents will gain access to quality health care services without traveling great distances to urban hospitals. Loans are made at the government's cost-of-money, which should help to meet demand for the program in the most cost effective way. In light of the Telecommunications Act's requirement that schools, health care providers, and libraries have access to advanced telecommunications services, sufficient targeted funding for these purposes is essential in fiscal year 2002.

CONCLUSION

The development of the nationwide telecommunications network into an information superhighway, as envisioned by policymakers, will help rural America survive and prosper in any market—whether local, regional, national, or global. However, without the availability of low-cost RUS funds, building the information superhighway in communities that are isolated and thinly populated will be untenable. By supporting the RUS telecommunications programs at the requested levels, the Subcommittee will be making a significant contribution to the future of rural America at a negligible cost to the taxpayer.

PREPARED STATEMENT OF THE RED RIVER VALLEY ASSOCIATION

Mr. Chairman and members of the Committee, I am Wayne Dowd, and I am pleased to represent the Red River Valley Association as its President. Our organization was founded in 1925 with the express purpose of uniting the citizens of Arkansas, Louisiana, Oklahoma and Texas to develop the land and water resources of the Red River Basin.

As an organization that knows the value of our precious water resources we support the most beneficial water and land conservation programs administered through the Natural Resources Conservation Service (MRCS). We understand how important a balanced budget is to our nation; however, we cannot sacrifice what has been accomplished. NRCS programs are a model of how conservation programs should be administered and our testimony will address the needs of the nation as well as our region. We strongly believe that this national program must be preserved.

The President's fiscal year 2002 budget guideline for USDA indicates a reduction of 8¼ percent from fiscal year 2001. If you do not consider the emergency funds for fiscal year then the fiscal year 2002 appropriation is approximately a 3 percent increase; however, even this does not cover cost of living and inflation increases. This could mean NRCS programs will not be adequately funded, to the detriment of the agency and our natural resources. We would like to address several of the programs administered by NRCS. Failure to adequately fund these initiatives would reduce assistance to those who want it and the resources that need it.

Conservation Operations Budget.—This has been in steady decline, in real dollars, over the past several years. It has occurred partly as a result of funds being reduced from Conservation Operations to balance increases in other conservation financial assistance programs. Approximately $620 million was allocated for this account in fiscal year 2001. This is far short of what is required to serve the needs of our nation's private lands. We request a total of $965 million be appropriated for Conservation Technical Assistance.

Conservation Technical Assistance is the foundation of technical support and a sound, scientific delivery system for voluntary conservation to the private users and owners of lands in the United States. It is imperative that we provide assistance to all "working lands" not just those fortunate few who are able to get enrolled in programs. Working lands are not just crops and pasture (commodity staples) but includes forests, wildlife habitat and coastal marshes. The problem is that personnel funded from "programs" can only provide technical assistance to those enrolled in these cost share programs, leaving the majority of the agricultural community without technical assistance. We recommend that this funding for technical assistance be placed in "Conservation Technical Assistance", and allow NRCS to provide assistance to everyone.

It also appears the emphasis has been to increase 'command and control' enforcement and reduce voluntary, science based assistance. This is the wrong way to go. We encourage you to reverse this trend and allow our agricultural community to have access to technology for voluntary conservation, rather than be harassed by the constant threat of regulations and penalties for noncompliance.

Section 11 Caps.—Another factor that seriously reduces the ability of NRCS to meet the considerable public demand for technical assistance, is the Section 11 cap and the transfer of funds from the Community Credit Corporation (CCC). The CCC funds NRCS technical assistance for several programs, including EQIP and CRP. Currently, this cap prevents NRCS from covering its staff costs for these crucial programs. We support the removal of the Section 11 Cap on technical assistance, which was established before EQIP, CRP and VW were created. We will also be addressing this issue in the "Farm Bill", as it develops.

Watershed and Flood Prevention Operations (Public Law 566 & 534).—More than 10,400 individual watershed structures have been installed nationally. They have contributed greatly to conservation, environmental protection and enhancement, economic development and the social well being of our communities. More than half of these structures are over 30 years old and several hundred are approaching their 50-year life expectancy.

Today you hear a lot about the watershed approach to resource management. These programs offer a complete watershed management approach and should continue for the following reasons:

—They protect people and communities from flooding.
—Their objectives and functions sustain our nation's natural resources for future operations.
—They are required to have local partners and be cost shared.
—The communities and NRCS share initiatives and decisions.

—They follow NEPA guidelines and enhance the environment.

—They often address the need of low income and minority communities.

—The benefit to cost ratio for this program has been evaluated to be 2.2:1.

What other Federal programs can claim such success?

There is no questioning the value of this program. The cost of losing this infrastructure exceeds the cost to reinvest in our existing watersheds. Without repairing and upgrading the safety of existing structures, we miss the opportunity to keep our communities alive and prosperous. It would be irresponsible to dismantle a program that has demonstrated such great return and is supported by our citizens.

It was a great step forward to have the "Lucas Bill" passed last year, now adequate appropriations must be provided. A 1999 survey, conducted in 22 states, showed that 2,200 structures are in need of immediate rehabilitation at an estimated cost of $543 million. The funding level authorized in the bill is far short of this realistic need. We request that $5 million be appropriated for NRCS to conduct assessments of the rehabilitation needs nationwide. We request that 60 million be appropriated to provide financial and technical assistance to those watershed projects where sponsors are prepared to commence rehabilitation measures.

In addition to the needs for reinvesting in existing infrastructure there are many new projects, which are awaiting funds for construction. We strongly recommend that a funding level of 250 million be appropriated for the Public Law 534 ($30 million) and Public Law 566 ($220 million) proprams. This is realistic and comparable to appropriations in years prior to 1994.

Emergency Watershed Protection Program.—This program comes under Watershed and Flood Prevention Operations, but is a separate line item. It has traditionally been a zero budget line item; however, there will always be emergency needs.

As our land use expands to include sensitive environmental ecosystems, major weather events will have an adverse impact requiring NRCS assistance; therefore, it should be funded up front. It is important that NRCS is prepared for a rapid response, not waiting for legislative action. With funds available, they can respond immediately to an emergency when it occurs.

We request that a minimum of $100 million be appropriated for this program in fiscal year 2002 and are not taken from elsewhere in the NRCS budget. In fiscal year 2000 $80 million was added and in fiscal year 2001 $110 million. It is inevitable that emergency funds will be required, so this should be included.

Conservation Reserve Program (CRP).—This program, administered by Farm Services Agency, impacts NRCS the most. NRCS is reimbursed for providing technical assistance for this program. We understand the Administration is considering termination of this program since the original goals have been met. It restores the land to a higher and better use until such time as the nation may need it for food and fiber production. The environmental values gained from CRP should obviate the need and justify the investment of raising the CRP cap.

We ask Congress to take the initiative to increase the CRP enrollment cap to a minimum of 45 million acres. This is an extremely beneficial program to both our nation and the Red River Valley, and should not be allowed to expire. It provides a safety net to those farmers trying to make a living on the marginal lands most suited for this program.

Watershed Survey and Planning.—In fiscal year 2001 $11 million was appropriated to support this extremely important community program. NRCS has become a facilitator for the different community interest groups, state and Federal agencies. In our states such studies are helping identify resource needs and solutions where populations are encroaching into rural areas.

As our municipalities expand, the water resource issue tends to be neglected until a serious problem occurs. Proper planning and cooperative efforts can prevent problems and insure that water resource issues are addressed. We request this program be funded at a level of $25 million.

Forestry Incentives Program.—Congress transferred this program to NRCS from the Farm Service Agency as a restructuring in the Federal Agricultural Improvement and Reform Act of 1996. Forestry on small, privately owned lands is recognized as a farming activity. NRCS is the best agency to administer this program, which assists farmers in production agriculture. It is more than just a timber production program. Forests are the most effective use of land as they relate to water quality, non-point source pollution, air quality, greenhouse gas reduction and wildlife habitat.

We request Congress fund the Forestry Incentives Program at a level of $6.5 million for fiscal year 2002.

Environmental Quality Incentives Program (EQIP).—Request for assistance through the EQIP program has been overwhelming. Requests far exceed the available funds and place an additional workload on NRCS's delivery system. Addition-

ally, adequate funding for technical assistance must be provided to administer the program at a minimum of 19 percent of total program cost.

The EQIP program for fiscal year 2002 should be appropriated $300 million and the technical assistance budgeted at $57 million to meet the 19 percent TA level.

Wetlands Reserve Program (WRP).—This is a very popular and important program. It serves as a safety net to those farmers trying to make a living on marginal lands. It also addresses a variety of conservation needs, from water quality to global warming.

We strongly recommend that the cap be raised by 250,000 acres for fiscal year 2002. This will allow the program to continue until fiscal year 2003 when a reauthorization for the program can be made.

"Red Bayou Irrigation Demonstration Project".—Findings in the Natural Resources Inventory (NRI) have concluded that irrigated agriculture is moving from western states to the east. A prime example of this is the interest to irrigate along the Red River in Arkansas and Louisiana. The recent drought conditions have accelerated the efforts of different regions to form irrigation districts and start the process to install systems. The farmers along Red Bayou, Caddo Parish, Louisiana, have been very aggressive in their attempts to become operational. We request that this project be "earmarked" as a demonstration project to be used as a model throughout the Red River Valley. When the cost for this irrigation system has been determined and the irrigation district formed, we will request maximum Federal participation for the funding of this endeavor.

Over 70 percent of our land is privately owned. This is important in order to understand the need for NRCS programs and technical assistance. Their presence is vital to ensuring sound technical standards are met in conservation. These programs not only address agricultural production, but sound natural resource management. Without these programs and NRCS properly staffed to implement them, many private landowners will not apply conservation measures needed to sustain our natural resources for fixture generations.

There have been new clean water initiatives, but why do we ignore the agency that has a proven record for implementing watershed conservation programs? Congress must decide: will NRCS continue to provide the leadership within our communities to build upon the partnerships already established? It is up to Congress to insure NRCS is properly funded and staffed to provide the needed assistance to our taxpayers for conservation programs. Funding Conservation Technical Assistance at $965 million and eliminating the Section 11 Caps will go a long way in accomplishing this.

All these programs apply to the citizens in the Red River Valley and their future is our concern. The RRVA is dedicated to work toward the programs that will benefit our citizens and provide for high quality of life standards. We therefore request that you appropriate the requested funding within these individual programs, to insure our nation's conservation needs are met.

I thank you for the opportunity to present this testimony on behalf of the members of the Red River Valley Association and we pledge our support to assist you in the appropriation process.

Grant Disclosure.—The Red River Valley Association has not received any Federal grant, sub-grant or contract during the current fiscal year or either of the two previous fiscal years.

PREPARED STATEMENT OF THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe of Florida is pleased to submit this statement regarding the fiscal year 2002 budget for the Natural Resources Conservation Service (NRCS) in the Department of Agriculture.

The Seminole Tribe of Florida asks that Congress earmark a total of $400,000 in the Natural Resources Conservation Service's (NRCS) account that funds the Small Watershed Program, as authorized by Public Law 83–566, for design and construction of a portion of the Tribe's Water Conservation Plan on the Big Cypress Reservation. The Tribe requests $300,000 for financial assistance for construction and $100,000 for technical assistance (08 funds) for operational planning. The Tribe has worked with the NRCS in Florida for five years to develop this small watershed project as a part of the Tribe's overall Everglades Restoration Initiative. The results of this small watershed project will complement the joint effort of the Tribe and the Corps of Engineers to complete the Initiative. This is the first year in which the Tribe has requested funding for this project.

In addition, the Tribe supports full funding for NRCS's Conservation Operations—01 Partnership. The Seminole Tribe's agricultural enterprises and environmental

programs benefit from the technical assistance the NRCS provides through its Conservation Operations Partnership. The Tribe works closely with the Florida State Conservationists on a number of 1996 Farm Bill programs and anticipates increased technical assistance needs in the coming fiscal year.

THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe lives in the Florida Everglades. The Big Cypress Reservation is located in the western basins, directly north of the Big Cypress National Preserve. The Everglades provide many Seminole Tribal members with their livelihood. Our traditional Seminole cultural, religious, and recreational activities, as well as commercial endeavors, are dependent on a healthy Everglades ecosystem. In fact, the Tribe's identity is so closely linked to the land that Tribal members believe that if the land dies, so will the Tribe.

During the Seminole Wars of the 19th Century, our Tribe found protection in the hostile Everglades. But for this harsh environment filled with sawgrass and alligators, the Seminole Tribe of Florida would not exist today. Once in the Everglades, we learned how to use the natural system for support without harm to the environment that sustained us. For example, our native dwelling, the chickee, is made of cypress logs and palmetto fronds and protects its inhabitants from the sun and rain, while allowing maximum circulation for cooling. When a chickee has outlived its useful life, the cypress and palmetto return to the earth to nourish the soil.

In response to social challenges within the Tribe, we looked to our Tribal elders for guidance. Our elders taught us to look to the land, for when the land was ill, the Tribe would soon be ill as well. When we looked at the land, we saw the Everglades in decline and recognized that we had to help mitigate the impacts of man on this natural system. At the same time, we acknowledged that this land must sustain our people, and thereby our culture. The clear message we heard from our elders and the land was that we must design a way of life to preserve the land and the Tribe. Tribal members must be able to work and sustain themselves. We need to protect the land and the animals, but we must also protect our Tribal farmers and ranchers.

Recognizing the needs of our land and our people, the Tribe, along with our consultants, designed a plan to mitigate the harm to the land and water systems within the Reservation while ensuring a sustainable future for the Seminole Tribe of Florida. The restoration plan will allow Tribal members to continue their farming and ranching activities while improving water quality and restoring natural hydroperiod to large portions of the native lands on the Reservation and ultimately, positively effecting the Big Cypress National Preserve and Everglades National Park.

The Seminole Tribe's Big Cypress Initiative addresses the environmental degradation wrought by decades of Federal flood control construction and polluted urban and agricultural runoff. The interrupted sheet flow and hydroperiod have stressed native species and encouraged the spread of exotic species. Nutrient-laden runoff has supported the rapid spread of cattails, which choke out the periphyton algae mat and sawgrass necessary for the success of the wet/dry cycle that supports the wildlife of the Everglades.

The Seminole Tribe designed an Everglades Restoration Initiative to allow the Tribe to sustain ourselves while reducing impacts on the ecosystem. The Seminole Tribe is committed to improving the water quality and flows on the Big Cypress Reservation. We have already committed significant resources to the design of the projects and to our water quality data collection and monitoring system. Within the next few months, the Tribe will begin construction on the conveyance system that will serve as the backbone to Big Cypress water control system. We are willing to continue our efforts and commitment of resources, for our cultural survival is at stake.

SMALL WATERSHED PROJECT ON BIG CYPRESS

As a part of the Tribe's Everglades Restoration Initiative, the Tribe completed a water conservation plan for the design and construction of surface water management systems to remove phosphorus, convey and store irrigation water, improve flood control, and rehydrate the Big Cypress National Preserve. This water conservation plan has been permitted for construction under the Clean Water Act Section 404 program.

Through the Corps of Engineers (COE) critical project program authorized by the Water Resources Development Act of 1996, the Tribe is building part of that water conservation plan. The first phase of the critical project is to construct a conveyance canal system that will supplement and improve the existing system. The balance

of the critical project will construct water storage and treatment areas on the eastside of the Reservation.

Over the last five years, the Tribe has enjoyed the support of the Florida State Conservationist and the Florida staff of the NRCS in the development of a small watershed project to address some needs identified in the water conservation plan. While some preliminary planning has been completed, an existing funding commitment prevented commencement of the small watershed project until fiscal year 2002. In fiscal year 2002, both the Tribe and the NRCS in Florida are prepared to begin design and construction of water storage and treatment areas on the westside of the Reservation. To do so, Congress must appropriate the initial funding.

While all the project component options have not been fully vetted, the cost estimates range from downward from $34.6 million. This project is approved to operate with a 75 percent Federal and 25 percent Tribal cost share. The timing of the design and construction are dependent on the funding stream.

CONCLUSION

Everglades restoration is a well-recognized national priority. The Tribe's goal of sustainable agriculture is consistent with the goals of the NRCS. The NRCS's support of the Tribe's conservation measures in the past, along with the implementation of future programs, will make a significant impact on the Big Cypress Reservation and the South Florida Ecosystem.

Through its assistance to the Tribe, NRCS has provided valuable technical assistance to date. Beginning in fiscal year 1999, NRCS has provided programmatic support through EQIP and WRP, which is anticipated to continue. Additional programmatic assistance through the small watershed program will provide the needed design and construction to complete the water conservation plan None of the joint objectives of the Tribe and the NRCS can be accomplished, however, without sufficient funding.

The Tribe has demonstrated its economic commitment to the Everglades Restoration effort; the Tribe is asking the Federal government to also participate in that effort. This effort benefits not just the Seminole Tribe, but all Floridians who depend on a reliable supply of clean, fresh water flowing out of the Everglades, and all Americans whose lives are enriched by this unique national treasure.

Thank you for the opportunity to present the request of the Seminole Tribe of Florida. The Tribe will provide additional information upon request.

PREPARED STATEMENT OF THE SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION

We appreciate the support this Subcommittee has provided to these programs of the United States Department of Agriculture (USDA) and respectfully request the following modest appropriations to ensure the protection of animals and people and that the laws passed by Congress are being carried out effectively.

A $14.5 Million Appropriation is Needed for APHIS/Animal Care's Enforcement of the Animal Welfare Act

A coalition of organizations including the American Veterinary Medical Association, the American Zoo and Aquarium Association and the Society for Animal Protective Legislation has joined together seeking adequate funds for enforcement of the Animal Welfare Act (AWA). This represents a unique meeting of the minds between the regulated community and the animal welfare community, who recognize the desperate need for increased funding for this vital program.

The AWA is the chief Federal law for the protection of animals. The USDA seeks compliance with its minimum standards for the care and treatment of animals during transportation and at the approximately 10,000 sites of dealers, research, testing and teaching facilities, zoos, circuses, carriers (airlines, motor freight lines and other shipping businesses) and handlers (ground freight handlers).

Forty-two percent of the facilities that are inspected by USDA are found to be noncompliant. Facilities with serious deficiencies require reinspections to ensure that corrective action is taken, but lack of funds has prevented USDA from conducting this much-needed follow-up.

In 1966 the Laboratory Animal Welfare Act (later renamed the Animal Welfare Act) was adopted in an effort to prevent the sale of lost or stolen pets into research. Nevertheless, this has continued to be a serious problem. In an attempt to address this problem in the 1990s, APHIS Animal Care (AC) instituted a policy of conducting quarterly inspections of random source dealers. Since stepping up its enforcement in this area (which has come at the expense of inspections conducted elsewhere), USDA has revoked 11 dealer licenses and imposed more than $500,000 in

fines. The number of random source (USDA licensed Class B) dealers supply dogs and cats to research has dropped from 104 to 23.

This example illustrates the value of frequent, unannounced inspection of licensees and registrants. Increasing the number of inspections will ensure effective compliance with the law. Facilities need to comply with the minimum standards under the law, or they should not be operating businesses that involve the use of animals under the AWA.

The 1985 amendment to the AWA mandates at least one inspection per year of all registered research facilities. A vigorous inspection program is critical to maintaining public confidence in the quality of research and ensuring the humane treatment of experimental animals. With the need to evaluate performance, as well as engineering, standards, each inspection is timeconsuming and necessitates skilled veterinary inspectors.

Increased funding will permit AC to hire and equip more inspectors, and thereby increase the number of facilities that are inspected. Additional training of inspectors to improve the quality of their inspections will be possible, too. AC will be able to increase its searches for unlicensed facilities, an important effort because failure to obtain licensure is a widespread problem with many entities purposefully evading AC and the requirements of the AWA. An area frequently ignored for lack of sufficient funds has been inspection of airlines. Increased funding will permit AC to conduct an adequate number of inspections of airlines in an effort to protect against the injury, loss or death of animals being transported by air and to help meet the requirements of the recently adopted Federal Aviation Administration amendment for safe transport of animals by air.

An Appropriation of $7.263 is needed for APHIS' Investigative and Enforcement Services.

Investigative and Enforcement Services (IES), the enforcement arm within APHIS, is responsible for conducting investigations, tracking unresolved cases, coordinating investigations within APHIS and between APHIS and other Federal and/or state agencies and train APHIS inspectors in the collection of evidence and documentation of violations. IES provides support to AC and to three other APHIS programs.

An increased appropriation is needed for IES to provide timely and complete investigations of alleged AWA violations. A $1 million increase will enable IES to fill a critical vacancy for an enforcement specialist and to continue to support four field investigators, now temporarily funded by the APHIS Administrator. IES would also fill four new field positions strategically located in the states with the greatest need. Additional funds to IES will: permit deployment of "quickresponse" teams to address high-priority/visibility violations, permit implementation of an electronic case report format to accelerate case routing and processing, reduce the time to complete investigations, and allow investigators to accompany AC inspectors to noncompliant facilities when necessary.

A $1 Million Appropriation is needed for the Animal Welfare Information Center with a cap of 5 percent to Agriculture Research Services and/or the National Agricultural Library.

The Animal Welfare Information Center (AWIC) was established by the 1985 amendment to the Animal Welfare Act, the Improved Standards for Laboratory Animals Act, to serve as a clearinghouse and educational resource of information on alleviating or reducing pain and distress in experimental animals (including anesthetic and analgesic procedures), reducing the number of animals who must be used for research and identifying alternatives to the use of animals for specific research projects.

AWIC is the single most important resource for educating research facility personnel on their responsibilities under the AWA. There are more than 1,200 registered research facilities nationwide, and the services of the AWIC are available to all individuals at these institutions including the members of the Institutional Animal Care and Use Committees.

The AWIC staff, four full-time professionals, one technician and two part-time professionals, respond to requests for information on topics covered by the AWA including alternatives to painful procedures, unproved methodologies, training, environmental enrichment for nonhuman primates, and checking for unintended duplication. The staff conducts training, present at meetings, exhibit at conferences, produce documents, maintain a website and work on special projects.

The AWIC website (http://www.nal.usda.gov/awic), which receives approximately 45,000 hits per month, is a growing medium of information dissemination that needs to be expanded and updated. Annually the AWIC staff fills about 20,000 requests for specific publications and has provided reference services in response to more than 1,500 requests.

The AWIC appropriation has remained at $750,000 since it establishment 15 years ago, and over time this has increasingly restricted the services that AWIC is able to provide. In addition, the National Agricultural Library (NAL) and the Agriculture Research Service (ARS) have been collecting "overhead" from AWIC, leaving the Center with a mere $365,000 to operate-less than half of their appropriation! This siphoning off of AWIC's resources warrants an inquiry. A cap on monies provided to ARS and NAL is needed.

Additional funds will permit AWIC to sponsor workshops in different regions of the country and to develop web-based interactive training modules to educate the regulated community and thereby increase compliance with the Animal Welfare Act. The website would be expanded with additional material and an updated search engine to maximize the data available and the efficiency of obtaining it.

A $500 thousand Appropriation is needed for APHIS/Animal Care's Enforcement of the Horse Protection Act

Congress adopted the Horse Protection Act (HPA) more than 30 years ago yet soring of Tennessee Walking Horses continues to be a widespread problem. Soring is defined by APHIS as "the application of any chemical or mechanical agent used on any limb of a horse or any practice inflicted upon the horse that can be expected to cause it physical pain or distress when moving." Horses are sored to produce an exaggerated gait.

The most effective method of reducing the showing of horses who have been sored is to have Animal Care (AC) inspectors present at the shows. AC has been restricted to attending about 10 percent of horse shows because of insufficient funds. Unless funding is provided to enable AC to attend more events, the industry will continue to defy the law with impunity. Certain members of the Walking Horse industry with a careless disregard for the HPA have utilized a variety of strategies to prevent fair and proper enforcement of this law. The current effort to undermine the law is to deny inspectors the ability to use digital palpation of the pastern to determine soreness in horses. Use of digital palpation, an accepted veterinary diagnostic technique, is vital to AC's ability to enforce the law.

Lack of financial support has made it necessary for AC to rely heavily on the industry to assume responsibility for enforcement of the law. This is the same industry that has turned a blind eye to compliance with the law since 1970! "Designated Qualified Persons" (DQPs) are the "inspectors" from industry who are supposed to assist AC in identifying sore horses and pursuing action against the individuals who are responsible. The history of DQPs reveals their failure to achieve the level of enforcement of the unbiased, well-trained, professional AC inspectors. The gap is widening between the enforcement when AC inspectors are present versus the level of enforcement by unsupervised DQPs, clearly demonstrating the abysmal failure of the industry to regulate itself. For example, in fiscal year 1999 the rate at which DQPs turned down horses for soring was .44 percent. The turndown rate more than tripled to 1.49 percent when government inspectors were present to oversee the activities of the DQPs. The record was still worse for certain Horse Industry Organizations like the Kentucky Walking Horse Association; there was a nearly 12-fold increase in horses who were turned down for soring when AC inspectors were present as compared to when DQPs were unsupervised!

We respectfully request that the Subcommittee resist all efforts by the industry to restrict AC's ability to enforce the Horse Protection Act. An increase in appropriations to $500,000 would permit AC to attend a greater percentage of horse shows, thereby ensuring significantly stronger compliance with the HPA.

A $16.2 Million Appropriation is needed for Wildlife Services' Oral Vaccine Effort Against Rabies.

Wildlife Services (WS) has been involved in a wildlife rabies vaccine program which uses treated baits in an effort to curb the spread of rabies. An appropriation of $16.2 million is needed to continue the expansion of regional barriers. Resources'should be maximized to address the rabies threat. We encourage that full funding be provided for this critical effort: $7.8 million through legislative appropriations and $8.4 million through the Commodity Credit Corporation. These funds will be used to assist participating states by: (1) continuing the vaccination program in Texas to control and eliminate gray fox rabies, while maintaining an effective barrier to prevent the reintroduction of canine rabies in coyotes, (2) maintaining the vaccination barrier in Ohio and West Virginia to keep raccoon rabies from advancing along the Ohio River Valley, (3) increasing existing vaccination barrier zones and establishing new critical barriers in the New England States and New York State to contain raccoon rabies and to establish raccoon rabies-free areas in the northeastern United States, with the ultimate goal of merging regional programs in Ohio and New York State, and (4) establishing a regional vaccination barrier pro-

gram in the Southeastern United States to prevent the westward spread of raccoon rabies through Alabama and Louisiana.

Congress needs to provide increased Oversight of Wildlife Services' Operations and Research.

Wildlife Services (WS) needs to utilize a variety of tools for management of wildlife under its purview. However, it is essential that these tools are effective and publicly acceptable.

WS needs to begin a phase out of steel jaw leghold traps. Leghold traps slam shut with bonecrushing force on the limbs of their victims, tearing ligaments and tendons, severing toes and causing excruciating pain. These traps, opposed by the vast majority of Americans, have been condemned as "inhumane" by the American Veterinary Medical Association, the American Animal Hospital Association and the World Veterinary Association. On December 11, 1997, the U.S. Government reached an "understanding" with the European Union in which the U.S. agreed to phase out use of "conventional steel jawed leghold restraining traps." WS has the responsibility of complying with the U.S. obligation by ending its use of these barbaric devices.

WS should begin by immediately prohibiting use of leghold traps for 3 species for which there is extensive documentation that effective, publicly acceptable, less cruel alternatives exist. These species are raccoon, beaver and opossum. While we believe that this policy should extend to all species, there is no justification for refusing to implement this modest step in alleviating unnecessary animal suffering at once.

WS should pursue no further testing of leghold traps as this would be an extremely wasteful use of taxpayer money and cause unnecessary animal cruelty. Previously, funds designated for trap research were merely passed on to a nongovernmental organization to utilize as it saw fit, without involvement and oversight from WS. If funds are allocated for trap testing, WS should conduct the research since the agency has the appropriate technical expertise.

Further, WS should adopt a policy of checking all restraining traps within a 24-hour period. A wealth of scientific studies documents the fact that the longer an animal is in a restraining trap, the greater the injury. For this reason, the majority of states have a daily trap check requirement. Animals should not be subjected to long-drawn out pain because of a failure to assume the responsibility of carefully checking traps every day. This policy will help reduce the trauma experienced by non-target animals, too, ensuring that more of these animals will be able to be released alive.

PREPARED STATEMENT OF THE TEXAS A&M UNIVERSITY SYSTEM

Mr. Chairman and members of the Committee, I am Ed Hiler, Vice Chancellor for Agriculture and Life Sciences in The Texas A&M University System. I appreciate the opportunity to describe a few exciting research projects we have underway, and to ask for your support for continued Federal funding. New technology is the life blood of American agriculture. With the 1996 Farm Bill and resulting phase down in Federal farm programs, it is imperative that research continues providing a technological underpinning for agriculture. Today, I will briefly describe several examples of how we can provide this underpinning to benefit both agriculture and consumers.

DEVELOPING FRUITS, VEGETABLES AND OTHER FOOD PLANTS FOR PREVENTION OF LIFE-THREATENING DISEASES

I want to begin by describing an exciting research area that is joint between agriculture and medicine. Diet- related diseases—certain kinds of cancer, heart disease, stroke, atherosclerosis, and diabetes mellitus—are leading causes of two-thirds of the 2 million deaths that occur in the United States each year. These diseases also have long term costs associated with lost productivity and disease treatment. Scientists are identifying plant "phytochemicals" in food plants that prevent these diseases. Plant breeders, biochemists, and biotechnologists are working to increase levels of the compounds through conventional breeding and new molecular techniques. Our objectives seek to reduce the risk of, or to slow or even prevent diseases such as cancer, heart disease, stroke, and atherosclerosis. Researchers at the Texas A&M Vegetable and Fruit Improvement Center, Institute of Food Science and Engineering, and the Borlaug Crop Biotechnology Center will work with fruit and vegetable producers, seeds producers, and food processors to develop commercially viable products available for all Americans. Scientists at the Texas A&M University-Kingsville Citrus Center, University of Texas Southwest Medical Center in Dallas, Texas A&M University Health Science Center, Baylor College of Dentistry, and South Carolina

Cancer Center within the University of South Carolina will cooperate in designing improved food crops for prevention of diseases. Consumers, health care providers, farmers, and government will benefit from the production, consumption, and health effects of producing and consuming these improved plants. We are requesting increased funding for this important continuing project at $2,000,000 for fiscal year 2002.

POLLUTANTS, ODOR, AND DUST FROM CONCENTRATED ANIMAL FEEDING OPERATIONS IN THE SOUTHERN HIGH PLAINS

The semiarid western United States of Texas, Kansas, Oklahoma and New Mexico produce over one-third nationally of beef and dairy cattle fed in confinement. The region likewise has experienced explosive growth of the dairy industry and large scale, multiple-site swine feeding operations. This industry growth has intensified public concern about effects of air pollution (noxious gases, odors and dust events) from these Concentrated Animal Feeding Operations, or CAFOs. To address public concern, the Texas A&M University System and Kansas State University propose to establish a national program for research and technology transfer of methodologies that agricultural producers, processors, and managers of CAFOs can use to economically comply with air pollution regulations mandated by the Federal Clean Air Act (FCAA) and required by State Air Pollution Regulatory Agencies (SAPRAs). The goal of this initiative will be a reduction of public exposure of pollutants from agricultural operations while minimizing the economic burden on managers of agricultural operations. We are requesting funding for this project at $1,000,000 for fiscal year 2002.

INCREASING FOOD SAFETY THROUGH ADVANCED MOLECULAR TECHNOLOGIES]

Food safety is among the greatest concerns of the public, particularly safety of the nation's supply of meats, fruits, and vegetables. Foods contaminated with animal wastes and other sources of bacterial pathogens annually cause millions of illnesses and thousands of deaths. In this initiative, we are seeking appropriations to develop and test the application of advanced molecular technologies for enhancing the safety of the nation's food supply. New and rapidly advancing molecular technologies promise to make possible the early and economical tracking and investigation of such pathogens. They also will significantly increase our ability to determine sources of outbreaks and to anticipate the effects of food production and processing practices on the ability of these organisms to cause disease. The Texas and Iowa Agricultural Experiment Stations and Texas Tech University propose cooperative public-private research needed to put such technologies in place throughout the nation and the world. The requested resources will strengthen coordination among Iowa State University, the Institute of Food Science and Engineering at Texas A&M University, and The Center for Research on Animal Production Issues at Texas Tech University. We estimate that implementing this initiative will begin a process that reduces numbers of medical cases associated with food borne pathogens by 210,000 and the numbers of deaths by 380. We are requesting funding for this project at $1,250,000 for fiscal year 2002.

PROTECTING U.S. AGRICULTURE FROM BIO-TERRORISM AND EXOTIC BIO-INVADERS

Bio-terrorism is a significant threat to the U.S. agricultural system and the U.S. food supply. The threat of biological weapons during the Gulf War, the planned use of chemical and biological agents by terrorists in Japan's subways, and a deeper understanding of the former USSR's bio-weapons program, underscores the potential threat of bio-terrorism to the U.S. population, its food supply, and the entire U.S. agricultural system. Genetically engineered bio-agents greatly expands the list of naturally occurring biological invaders and underscores the importance of early detection of bio-agents introduced into the U.S. from other parts of the world. An integrated system for protecting U.S. agriculture and its food supply against the threat of bioterrorism is recognized as an increasingly high priority addition to similar systems for protecting humans and cyberspace. The system will also work for natural or accidental outbreaks of animal and plant disease resulting from introduction of exotic bio-agents. The proposed agricultural bio-security system will include a surveillance network using GPS and satellite imaging technology, field and laboratory based diagnostic capacity deploying DNA-chip technology to identify and characterize bio-agents, and a geo-referenced information system for predicting and tracking the spread of bio-agent after introduction. The system will include means to support intervention and mitigation following attack. We will develop the system in partnership with the USDA's Agricultural Research Service, other universities, and

the private sector. We are requesting funding for this project at $7,000,000 for fiscal year 2002.

The next few initiatives are collaborative efforts that are currently funded. This funding is greatly appreciated. My purpose in commenting on each initiative is to urge their continued funding in this next fiscal year.

EFFICIENT IRRIGATION FOR WATER CONSERVATION IN THE RIO GRANDE BASIN

Recent drought conditions in the border region of the Rio Grande Basin highlight the importance of ample water resources for the region's economy and environment. More efficient agricultural and urban irrigation systems can conserve large amounts of water that can be used for other purposes. The objective of this two- state initiative is to increase the efficiency of agricultural and urban landscape irrigation and encourage development of efficient water markets in the basin. We are requesting continued funding for this project at $3,750,000 for fiscal year 2002.

ANIMAL FIBER RESEARCH

We seek appropriations to continue wool, mohair and cashmere research that will stabilize and increase the profitability of the sheep, Angora, and cashmere goat industries in the United States and Texas while providing U.S. consumers with high quality animal fibers at internationally competitive prices. In this three- state initiative, emphasis will be placed on the development and expanded use of objective fiber measurements in the areas of nutrition, management, selection, harvesting, and marketing. We are requesting funding for this project at $300,000 for fiscal year 2002.

FARM-LEVEL IMPACTS OF AGRICULTURAL POLICY

We need continued funding to conduct agricultural policy research that directly supports congressional committees involved in setting agricultural policy. This two-state research activity emphasizes the regional and farm-level effects of alternative agricultural policies on crop producers. Monitoring performance at the farm level continues to be particularly critical as government explores its role in providing an income safety net for American agriculture. We are requesting funding for this project at $750,000 for fiscal year 2002.

LIVESTOCK AND DAIRY POLICY ANALYSIS

We need funds to allow Texas A&M University and Cornell University to conduct agricultural policy research on the livestock and dairy industries that will assist congressional committees in developing new legislation for agricultural programs. We will analyze legislative options to determine policy impacts on various sectors of the agricultural economy, markets and land prices. Monitoring the performance of the dairy sector at the farm level will be particularly critical at a time of regulatory dairy policy reform mandated by the 1996 Farm Bill and government roles in providing an income safety net for American agriculture. We are requesting funding for this project at $925,000 for fiscal year 2002.

CENTER FOR NORTH AMERICAN STUDIES

This two-state funding initiative, which has received continual support from Congress since fiscal year 1994, would continue and expand the programs of the Center for North American Studies headquartered in The Texas A&M University System. The Center provides leadership for the promotion of stronger agricultural relationships among Canada, Mexico and the United States through cooperative study, research, policy analysis and training. We are requesting funding for this project at $925,000 for fiscal year 2002.

SHRIMP AQUACULTURE RESEARCH

Federal support is needed to maintain continued funding for ongoing efforts and to expand programs of the U.S. Marine Shrimp Farming Program (USMSFP). This program, currently funded by the USDA/Cooperative State Research, Extension and Education Service (CSREES) through the Oceanic Institute in Hawaii and the Gulf Coast Research Laboratory Consortium as based in the Texas Agricultural Experiment Station and The Texas A&M University System Agriculture Program. We are requesting funding for this project at $5,000,000 for fiscal year 2002.

INTERNATIONAL GOAT RESEARCH AT PRAIRIE VIEW A&M UNIVERSITY

Congressional funds are sought to continue the effort supporting dairy and meat goat research at the International Goat Research Center at Prairie View A&M University, a member of The Texas A&M University System. We are requesting funding for this project at $750,000 for fiscal year 2002.

NEW PRODUCTS FROM RANGELANDS AT TEXAS A&M UNIVERSITY-KINGSVILLE

Congressional funds are sought to continue research efforts to support the commercialization of new industrial and food crops from native plants—such as cacti and mesquite—from arid lands, greatly benefitting Americans who live in the southwestern United States. We are requesting funding for this project at $120,000 for fiscal year 2002.

SOUTHERN PLAINS COTTON RESEARCH AND EDUCATION CONSORTIUM

The cotton industry in the Southern Plains is under unprecedented stress from declining prices due to strong global competition, improved boll weevil management, and increased cotton acreage in the southeastern U. S. An agricultural research and education consortium composed of Texas Tech University, the Texas Agricultural Experiment Station, the Texas Agricultural Extension Service, and USDA Agricultural Research Service has been formed to address these challenges in the Southern Plains. The consortium proposes to initiate a five-year, $27.5 million program to increase profits of Southern Plains cotton farmers and processors. The effort will accomplish its goal by developing and disseminating improved cotton germplasm, crop management practices, pest control programs, textile processing technologies, and marketing programs. We are requesting funding for this project at $5,500,000 for fiscal year 2002.

AGRICULTURE AND THE ENVIRONMENT—LANDSCAPE ISSUES

The focus of the Texas Institute for Applied Environmental Research is on agriculture and the environment. Funding for this initiative will be used to continue development of (1) conceptual approaches that can be used to resolve environmental problems in agriculture while maintaining the competitiveness of the industry, (2) modeling tools that analyze policy alternatives to determine their effectiveness in achieving environmental objectives and their economic impacts on the targeted industry, and (3) implications of smart growth initiatives on production agriculture. We are requesting funding for this project from USDA at $1,500,000 for fiscal year 2002.

PREPARED STATEMENT OF THE U.S. APPLE ASSOCIATION

The U.S. Apple Association (USApple) appreciates the opportunity to provide this testimony on behalf of our nation's apple industry.

Our testimony will focus on the following three areas: the Market Access Program (MAP); Food Quality Protection Act (FQPA) implementation; and Agricultural Research Service (ARS) funding.

USApple is the national trade association representing all segments of the apple industry. Members include 40 state and regional apple associations representing the 9,000 apple growers throughout the country as well as more than 500 individual firms involved in the apple business. Our mission is to provide the means for all segments of the U.S. apple industry to join in appropriate collective efforts to profitably produce and market apples and apple products.

Assistance for Apple Growers.—USApple urges Congress to provide apple growers with fair and equitable inclusion in any farm relief program that may help apple growers survive the current devastating economic crisis.

Apple growers lost an estimated $760 million between 1995 and 1998 due to unfairly priced imports of apple juice concentrate, adverse weather conditions, continuing retail consolidation and rising regulatory costs among other factors beyond their control. Current apple prices, which are as much as 40 percent below grower production costs, are pushing apple growers deeper into financial crisis.

Congress provided $100 million in market loss assistance and $38 million in crop loss assistance for apple growers as part of the fiscal 2001 Agricultural Appropriations act (Public Law 106–387). It provides Commodity Credit Corporation funds to compensate apple growers for recent devastating market and crop losses. However, this assistance is not adequate to sustain America's apple growers through the current economic crisis.

Market Access Program (MAP).—USApple strongly supports increasing the annual appropriation for MAP from $90 million to $200 million.

All segments of the U.S. apple industry benefit directly from the use of export promotion funds, which increase export demand. In fiscal year 2001, the apple industry received approximately $3 million in MAP export-development funds. These funds are matched by grower funds, and are used to promote apples in more than 20 countries throughout the world. Since 1987, when the apple industry first utilized MAP funds, apple exports have increased by 49 percent.

The U.S. apple industry faces keen competition around the globe from competitors who receive significant government funds for generic promotions. The governments of our foreign competitors spend approximately $500 million on export promotion and market development. It has become increasingly difficult for U.S. exporters to compete with European and Chinese producers who receive massive government assistance. Increased funding for this critical program will assist U.S. apple producers to better compete and revive export demand in countries recently hit by adverse economic conditions.

Food Quality Protection Act (FQPA) Implementation.—USApple strongly supports full funding for the following programs intended to facilitate fair FQPA implementation and to offset its anticipated negative impact on apple growers.

Specifically, USApple supports the U.S. Department of Agriculture's following budget requests.

—$20 million for the Pesticide Data Program, administered by the Agricultural Marketing Service (AMS);
—$7.3 million for the National Agricultural Statistics Service (NASS) pesticide-usage surveys;
—$2.6 million for the Office of Pest Management Policy administered by the Agricultural Research Service (ARS);
—$4.1 million for minor-use registration of crop protection tools (IR–4) administered by ARS;
—$16 million for area-wide Integrated Pest Management research administered by ARS;
—$20 million for the Integrated Pest Management Research Grant Program administered by the Cooperative State Research, Extension and Education Service (CSREES);
—$12 million for minor-use registration of crop protection tools (IR–4) administered by CSREES; and
—$14.3 million for the Pesticide Impact Assessment Program, Regional Crop Pest Management Information Centers, Crops at Risk, and Risk Avoidance and Mitigation Program all administered by CSREES.

Temperate Fruit Fly Research Position—Yakima, Wash.—USApple requests continued funding of $300,000 to conduct critical research at the USDA–ARS laboratory in Yakima, Wash. on temperate fruit flies, a major pest of apples.

FQPA implementation is expected to significantly reduce the number of pesticides currently available to growers for the control of pests such as cherry fruit fly and apple maggot. Left unchecked, these temperate fruit flies can be devastating. Research is critically needed to develop alternative pest controls should growers lose access to presently available crop protection tools as a result of FQPA implementation.

Congress appropriated $300,000 last fiscal year for this critical position. We request that the committee appropriate $300,000 for this position in fiscal year 2002.

Post Harvest Quality Research Position—East Lansing, Mich.—USApple requests that the committee provide continued funding of $309,600 for postharvest-quality research at the ARS laboratory in East Lansing, Michigan.

This facility is conducting research that is critical to the future economic recovery of the apple industry. Using a series of new sensing technologies, researchers at the East Lansing facility are developing techniques that would allow apple packers to measure the sugar content and firmness of each apple before it is shipped to consumers. Research has shown that consumers will increase purchases of high quality products that consistently meet their expectations. We believe consumers will eat more apples if this technology is fully developed and employed, by our industry.

Congress appropriated $309,600 last fiscal year for this critical position. We request that the committee continue to provide funding for this critical research in fiscal year 2002.

Fireblight Research—Kearneysville, W.Va.—USApple requests that the committee provide increased funding of $220,000 for fireblight tissue culture research at the ARS Appalachian Fruit Research Station in Kearneysville, W.Va.

Fireblight is a devastating disease that threatens apple growers in all apple growing regions. This disease has become more prevalent and even more difficult to con-

trol as growers have shifted production to several popular new apple varieties on rootstocks that are especially susceptible to fireblight.

Fireblight is a bacterial disease typically controlled with timely applications of antibiotics. However, various Federal agencies are reevaluating agricultural uses of antibiotics due to concerns that these uses may contribute to human resistance to antibiotics. Meanwhile, fireblight strains are becoming resistant to the apple industry's only antibiotic tool to control fireblight. This new funding is needed to find new alternative controls to antibiotics using tissue culture research and genetic engineering.

We request that the committee provide an increase of $220,000 for this important research in fiscal year 2002.

The U.S. Apple Association thanks the committee for this opportunity to present testimony in support of the U.S. apple industry's Federal agricultural funding requests.

PREPARED STATEMENT OF ASSOCIATION COORDINATION COUNCIL (ACC), THE NATIONAL LABOR COORDINATION COUNCIL (NLCC), AND THE UNION COORDINATION COUNCIL (UCC)

Chairman Cochran, Ranking Member Kohl, and members of the Subcommittee, I am Michelle Corridon, Communications Chairperson for the ACC, NLCC, and UCC. I thank you for this opportunity to offer comments on the proposed Department of Agriculture of Budget for fiscal year 2002.

INTRODUCTION

For the past three years, the Association Coordination Council (ACC), the National Labor Coordination Council (NLCC), and the Union Coordination Council (UCC) have been working together on issues of substance, which will maximize customer service and provide employees with a positive working environment. Our councils represent a coalition of employees who are located in both the USDA Field Service Centers and headquarters locations who work for the Farm Service Agency (FSA), Rural Development (RD) and the National Resources and Conservation Services (NRCS). We are the employees who deliver USDA programs on a daily basis and have first hand knowledge of what can be successful regarding our USDA Service Centers and the customers that we serve.

Since 1998, the Office of the Chief Information Officer (OCIO) and the Service Center Agencies have been working together to modernize the USDA Service Center Information Technology architecture. The employee coalitions have directly been involved and have supported those effects and worked with the OCIO to secure funding for these improvements. We have taken our case to the Office of Management and Budget (OMB) and to the Congress. We are also working closely with our Service Center partners, which includes the local Soil and Water Conservation Districts. Most Service Center employees will agree that the new computers, printers, software, and telecommunications upgrades are bringing our business into the 21st century. However, the USDA modernization is only 70 percent complete and some of the additional components including GIS, will provide dramatic improvements in how we can serve our customers.

E-COMMERCE IS THE DIRECTION OF THE FUTURE

With the passage of H.R. 852, "The Freedom to E-File Act", USDA employees face the challenge that our customers will have service expectations that are greater than the level of service provided today. USDA employees are concerned that they will be on the "badside" of the digital divide. Our customers often have better equipment than the average USDA employee does and we are concerned that we will not be able to process electronic service requests as intended in the Act, the technology modernization, including the upgrading of our Service Center telecommunications system.

Our customers expect other e-commerce activities such as the sale of government owned real estate, electronic data interchange (EDI), and loan processing. Our Rural Development Guaranteed Rural Housing program lenders expect electronic processing of loan applications and loan underwriting. Lenders face the same problems as USDA employees, a lot of work with fewer employees. Web-based loan processing allows the lender to spend more time on more complicated applications while still maintaining volume. Without a web-based solution to process and underwrite loans, Rural Development and the Farm Service Agency will fall further behind in market

share. That will mean we are not serving Rural America in the manner in which we are charged.

As important as e-commerce is to our future, we all know that USDA will continue to have a large part of its customer base that is either not "e-savvy" or simply wishes to do business with us in other ways. We also have a large segment of Rural America that has traditionally not used our services such as Native American tribal organizations. Maximizing delivery of e-services and providing "mobile" technology tools will free up staff time to better address those needs.

HUMAN CAPITAL CRISIS

It is anticipated that within the next 5 years, approximately 50 percent of the USDA employee population can and will retire. We can all agree that the possibility of replacing those employees is not good. Additionally, USDA has lost about 22 percent of its employee population within the past 5 years with a corresponding increase in program level activity of approximately 78 percent. Also within that same time frame, employees have only been able to complete work that is absolutely necessary and have been unable to donate adequate time to important issues such as outreach to under served communities. For example in FSA, credit employees are mandated to provide supervised credit to borrowers. Employees have been unable to do so because of the demands of greeting borrowers, providing reports to upper management, and closing loans. USDA needs to stabilize employee numbers while updating outdated technology.

The GIS tools will save a lot of time for NRCS, FSA, and RD employees. The Old methods of designing practices such as buffer strips used to take days; with GIS now being deployed, an employee can generate options for the customer in about 15 minutes. FSA employees are using GIS maps and GPS units to measure complex CRP signup fields in hours instead of days. Many offices map oriented processes are seeing 80 to 90 percent efficiency improvements. The customer spends less time in the office, giving them more time to spend on farm management. The employee is able to assist more customers.

FARM BILL ISSUES

The crisis in the farming community will mean a hard look at the current farm bill. Most farmers and FSA employees will agree that "Freedom to Farm" is not working. Due to the economic crisis across the U.S. and the world, the open market concept has not brought economic success to our American Farmers. FSA employees are under mandate from Congress to provide assistance checks to farmers because of low prices. These employees are stretched to the limit and need modern automation tools.

WHAT IS NEEDED FOR FISCAL YEAR 2002

In order for USDA to meet its obligations to Rural America, both in the short run and for the future, we ask that you provide fiscal year 2002 funding sufficient to:

—Maintain current staffing levels to allow us to provide current services while at the same time devoting resources to modernize our program delivery.

—Complete the Common Computing Environment (CCE), as originally planned by the end of fiscal year 2002.

In terms of the CCE, we believe that it is important to continue to provide these funds continually under the OCIO so that the new equipment is not "owned and controlled" by any one of the Service Center agencies but is available to all. We also know that from the USDA Service Center Modernization Technology Blueprint published in December 2000 and through our work with the OCIO technology team, that $100 million will be required in fiscal year 2002 to complete the CCE as scheduled. This will provide the critically needed telecommunications upgrade ($15 million), the needed GIS/application hardware, software and enterprise license ($44 million), the necessary labor saving tools such as digital cameras, GPS units, scanners etc. ($32 million) and support training, architecture, and security at the levels needed to successful ($9 million). Not funding the completion of the CCE in fiscal year 2002 will delay the benefits and stretch out the technology modernization to five years when some of the initial components begin reaching the point of needing replacement. The completion of the CCE in fiscal year 2002 and the establishment of a "refresher fund" in fiscal year 2003 will ensure that we will have a viable common technology infrastructure to provide customer service on into the future.

CONCLUSION

USDA employees are committed to serving Rural America in the finest possible manner. However, it is difficult to do this without the proper tools. Your committee has been very supportive of our modernization efforts in the past and provided some special funding for this in fiscal year 2000 and 2001. We ask that you ratchet up this support to the point that we can finish this job this year and begin providing the kind of services that our customers deserve and a work environment that makes full utilization of the skill and knowledge that our employees have to offer. Mr. Chairman, on behalf of the many employees at the Service Center agencies, I want to thank you for this opportunity to present testimony and I offer the assistance of the employee councils at any time.

PREPARED STATEMENT OF THE UNITED STATES TELECOM ASSOCIATION

SUMMARY OF REQUEST

Project Involved.—Telecommunications Loan Programs Administered by the Rural Utilities Service of the U.S. Department of Agriculture.

Actions Proposed.—Supporting RUS loan levels and the associated funding subsidy for the hardship, cost of money, Rural Telephone Bank and loan guarantee programs in fiscal year 2002 in the same amount as loan levels specified in the fiscal year 2001 Agriculture Appropriations Act, and opposing the Administration's proposal which was contained in "A Blueprint for New Beginnings" to not fund Rural Telephone Bank loans. Also supporting an extension of the language removing the 7 percent interest rate cap on cost of money loans. Also supporting continuation of the restriction on the retirement of class A Rural Telephone Bank stock in fiscal year 2002 at the level contained in the fiscal year 2001 Agriculture Appropriations Act and an extension of the prohibition against the transfer of Rural Telephone Bank funds to the general fund. Supporting funding in the amount of $27 million in loan and grant authority designated for distance learning and telemedicine purposes, including allocation of $2 million of that funding to extend the pilot program begun last year of direct loans and grants to finance broadband transmission and local dial-up Internet service in rural areas.

The United States Telecom Association (USTA) represents over 1000 local telecommunications companies that provide over 95 percent of the access lines in the United States. USTA members range from large public-held corporations to small family-owned companies as well as cooperatives owned by their customers. I am Gary Lytle, Interim President and CEO of USTA. I submit this testimony in the interests of the members of USTA and their subscribers.

USTA members firmly believe that the targeted assistance offered by a strong RUS telecommunications loan program remains essential in order to maintain a healthy and growing rural telecommunications industry that contributes to the provision of universal telephone service. We appreciate the strong support this committee has provided for the telecommunications program since its inception in 1949 and look forward to a vigorous program for the future.

This testimony is based upon the Administration's budget proposal for fiscal year 2002 entitled "A Blueprint for New Beginnings". As of the filing of this testimony, that document is the only information available concerning the President's plans for RUS for the fiscal year beginning October 1, 2001. This testimony is necessarily based upon the assumption that there are no changes from the fiscal year 2001 Agriculture Appropriations Act other than those specified in the budget blueprint. USTA respectfully requests that the Subcommittee not close the hearing record until we have had an opportunity to supplement our testimony if the full Administration budget proposal differs from the budget blueprint with respect to appropriations for the RUS Telecommunications program.

A CHANGING INDUSTRY

As Congress recognized through passage of the Telecommunications Act of 1996, telecommunications in the United States is in the midst of the most significant changes any industry has ever undergone. Both the technological underpinnings and the regulatory atmosphere are dramatically different and changing at an extraordinarily rapid pace. Without system upgrades, rural customers will be left out of the emerging information revolution.

The need for modernization of rural telecommunications technology employed by RUS borrower rural telecommunications companies has never been greater. In addition to upgrading switching capability to allow new services to be extended to rural

subscribers, it is crucially important that rural areas be included in the nationwide drive for greater bandwidth capacity. In order to provide higher speed data services, such as Digital Subscriber Line (DSL) connections to the Internet, outside plant must be modernized in addition to new electronics being placed in switching offices. With current technology, DSL services cannot be provided to customers located on lines more than three miles from the switching office. Rural areas have a significant percentage of relatively long loops and are therefore particularly difficult to serve with these higher speed connections. Rural telecommunications companies are doing their best to restructure their networks to shorten loops so that DSL may be provided, but this is not an inexpensive proposition and may not be totally justified by market conditions. However, these services are important for rural economic development, distance learning and telemedicine. RUS-provided financial incentives for additional investment encourage rural telecommunications companies to build facilities which allow advanced services to be provided. The economic externalities measured in terms of economic development and human development more than justify this investment in the future by the Federal government.

Greater bandwidth and switching capabilities are crucial infrastructure elements which will allow rural businesses, schools and health care facilities to take advantage of the other programs available to them as end users. The money spent on having the most modern and sophisticated equipment available at the premises of the business, school or clinic is wasted if the local telecommunications company cannot afford to build facilities that quickly transport and switch the large amounts of data that these entities generate. RUS funding enhances the synergies among the FCC and RUS programs targeted at improving rural education and health care through telecommunications.

The RUS program provides needed incentives to help offset regulatory uncertainties related to universal service support, interstate access revenues and interconnection rules with a reliable source of fairly priced, fixed-rate long term capital. After all, RUS is a voluntary program designed to provide incentives for local telecommunications companies to build the facilities essential to economic growth.

RUS endures because it is a brilliantly conceived public-private partnership in which the borrowers are the conduits for benefits from the Federal government which flow to rural telephone customers, the true beneficiaries of the RUS program. The government's contribution is leveraged by the equity, technical expertise and dedication of local telecommunications companies. The small amount of government capital involved is more than paid back through a historically perfect repayment record by telecommunications borrowers as well as the additional tax revenues generated by the jobs and economic development resulting from the provision and upgrading of telecommunications infrastructure. RUS is the ideal government program—it generates more revenues than it costs, it provides incentives where the market does not for private companies to invest in infrastructure promoting needed rural economic development, it allows citizens to have access to services which can mean the difference between life and death and it has never lost a nickel of taxpayer money. Furthermore, if the Administration's projected lower interest rates materialize, the already very small subsidy required to maintain this program will be even further reduced.

IMPACT OF CREDIT REFORM ON THE RURAL TELEPHONE BANK

Contrary to the intent of Congress, the interpretation of credit reform by the Office of Management and Budget (OMB) has significantly affected the operation of the Rural Telephone Bank (RTB). One of the most damaging impacts of OMB's interpretation of the credit reform law is to essentially cleave the RTB into two banks—a liquidating account bank which is responsible for pre-credit reform loans, and a financing account bank which is responsible for post credit reform loans. USTA has protested this arrangement since it began, since it prevents the relending of borrower repayments to fund new loans in direct contravention of Sec. 409 of the Bank's enabling act. This, in turn, forces the RTB to borrow unnecessarily from the Treasury to fund new loans. It also permits funds to build up in the liquidating account that were generated by GAO-documented interest rate overcharges, instead of those funds being returned through relending to the same universe of borrowers that initially generated them. OMB should adhere to Sec. 409 of the Rural Electrification Act and allow those repayments to be used to fund new RTB loans.

RECOMMENDATIONS

Continuation in fiscal year 2002 of the loan levels and necessary associated subsidy amounts for the RUS telephone loan programs that were recommended by this committee and signed into law for fiscal year 2001 would maintain our members'

ability to serve the nation's telecommunications needs, maintain universal service and bring advanced telecommunications services to rural America.

USTA strenuously objects to the proposal in the budget outline to not fund Rural Telephone Bank loans in fiscal year 2002. The proposal is fundamentally flawed. The RTB's mission is far from complete. Loans made today are to provide state of the art telecommunications technology in rural areas. Furthermore, the budget savings are miniscule. If no RTB loans were made in fiscal year 2002, at the current loan level of $175 million, the outlay savings next year would amount to less than $26,000, not the $3 million quoted in the budget outline, because RTB loans are funded over a multi-year period. Moreover if administration interest rate predictions are accurate, RTB loans could potentially generate a profit for the government because there is a minimum statutory interest rate of five percent!

Not funding RTB loans will not "generate increased member and borrower support for statutorily authorized privatization". This ignores the fact that privatization of the RTB began in 1995 under the current law and is proceeding annually. Over $115 million, or almost 20 percent, of the government's equity investment in the bank has already been retired. As a matter of fact, not funding new loans in fiscal year 2002 could actually impede privatization since the law requires that the Bank annually retire government stock at the rate of at least five percent of the amount of new loans. With no new loans, there is no minimum requirement for retirement of government stock.

For a number of years, through the appropriations process, Congress has eliminated the seven percent "cap" placed on the insured cost-of-money loan program. The elimination of the cap should continue. If long term Treasury interest rates exceeded the 7 percent ceiling contained in the authorizing act, adequate subsidy would not be available to support the program at the authorized level. This would be extremely disruptive and hinder the program from accomplishing its statutory goals. Accordingly, USTA supports continuation of the elimination of the seven percent cap on cost-of-money insured loans in fiscal year 2002.

The restriction on the retirement of the amount of class A stock by the Rural Telephone Bank, adopted in fiscal 1997, should be continued. The Bank is currently retiring Class A stock in an orderly, measured manner as current law requires. This should continue. The Committee should also continue to protect the legitimate ownership interests of the Class B and C stockholders in the Bank's assets by continuing to prohibit a "sweep" of those funds into the general fund.

Recommended Loan Levels

USTA recommends telephone loan program loan levels for fiscal year 2002 as follows:

[In millions of dollars]

RUS Insured Hardship Loans (5 percent)	75
RUS Insured Cost-of-Money Loans	300
Rural Telephone Bank (RTB) Loans	175
Loan Guarantees	120
Broadband Pilot Program	100
Total	770

Distance Learning and Telemedicine

USTA strongly supports the loan and grant proposal and recommends its funding for fiscal year 2002 at the levels adopted in last year's Agriculture Appropriations Act, that is, $27 million for loans and grants. This program is a perfect complement to the traditional RUS telecommunications loan programs. For distance learning and telemedicine to become a reality, schools and hospitals need training and equipment. Similarly, local telecommunications companies need modern infrastructure to connect these facilities to the telecommunications network.

USTA also supports continued allocation of $2 million of this appropriation for the pilot program of loans and grants to finance broadband transmission and local dial up access to the Internet in rural areas. In its initial year, $100 million of loans for these important purposes were made. RUS was founded on the notion that rural Americans should have no lesser service, facilities and prices for telephone service as those living in more densely populated, lower cost areas. As we move into the Information Age, in which increases in productivity, economic development, education and medicine can greatly benefit from the tremendous potential of the Internet, it is a continuation of the historic mission of RUS to support the extension of vital new services to rural America.

CONCLUSION

Our members take pleasure and pride in reminding the Subcommittee that the RUS telecommunications program continues its perfect record of no defaults in over a half century of existence. RUS telecommunications borrowers take deadly seriously their obligations to their government, their nation and their subscribers. They will continue to invest in our rural communities, use government loan funds carefully and judiciously and do their best to assure the continued affordability of telecommunications services in rural America. Our members have confidence that the Subcommittee will continue to recognize the importance of assuring a strong and effective RUS Telecommunications Program through authorization of adequate loan levels.

PREPARED STATEMENT OF THE UNIVERSITY OF SOUTHERN MISSISSIPPI POLYMER INSTITUTE

Mr. Chairman, distinguished Members of the Subcommittee, I would like to thank you for this opportunity to provide testimony describing ongoing research and commercializing efforts of The University of Southern Mississippi (USM) and the Mississippi Polymer Institute. I am very grateful to the Subcommittee for its leadership and the continued support of the Institute and its work. This testimony will include an update on the progress of the Institute since my testimony of approximately one year ago. During the past year, our efforts have focused principally on two commercialization thrusts. One effort involves our novel, agricultural-based inventions in emulsion polymerizations, and the other is to produce a commercial, formaldehyde-free, soybean derived adhesive for a variety of composite board materials, i.e., particleboard or oriented strand board (OSB). During the past year, we have continued to refine the adhesive and have made much progress. We are optimistic that these materials will be of commercial quality. I will discuss the progress made with the two inventions separately in order to offer more clarity.

In the case of castor and soy oil, we have designed and synthesized several more novel monomers or polymer building blocks that offer state-of-the-art technology. For instance, the attributes of the technology includes the ability to produce odor free, solvent free, non-polluting latex coatings. This represents best-available-technology for the production of solvent free latex coatings. The success of the technology depends on the use of agricultural materials as a building block of emulsion derived polymers offering a new opportunity for ag derived materials as a raw material in the polymer industry. By contrast, contemporary latex coatings contain 250 grams/liter or more of air pollutants or volatile organic content (VOC) per gallon. Moreover, this novel technology, if practiced, would allow governmental regulatory agencies to tighten the restrictions on volatile organic content (VOC) emissions of applied coatings without harm to the coatings industry. The fundamental scientific principles regarding its mode of action have been confirmed, yet additional data must be collected as even more novel monomers, or polymer building blocks are designed and synthesized. We have identified emulsion polymerization as a synthetic technique particularly suited for use of these materials. We have also found that it holds much promise in ultraviolet cured polymers in that hard, scratch resistant coatings are produced in seconds from this novel technology. We have utilized this technology in the design and fabrication of industrial coatings that offer high performance, flexible, and non-blocking products. We have secured a pilot scale manufacturing facility for this material and as a result can produce 20 gallons of product per run. Financial assistance was obtained via the USDA SBIR division via competitive grant applications. We have met our SBIR objectives for Phase I and have thus submitted a Phase II award grant application. As a result of this work, we are now able to provide sufficient quantities of product to prospective users of this technology. We have sampled many interested parties and are in continuing negotiations with several firms regarding commercialization.

Over the past year, several new patents have been obtained from the U.S. Patent office protecting this technology. Foreign patent filings have also been affected. Two new patent applications are anticipated for submission to the U.S. Patent office within the next few weeks. Negotiations are also underway with Pentagon officials to obtain "Green Seal" certification for paints formulated from this technology. Paints have been formulated and submitted which, in our hands, meet the Green Seal requirements. However, the formulated coating is, at this writing, being evaluated by outside testing laboratories. Should the formulated paint meet the Green Seal requirements, and we have no reason to believe that it will not, we expect an order(s) from the Pentagon for coatings to be used in the Pentagon.

In summary, commercialization efforts have continued over the past year. New patents have been approved, new patent applications have been submitted, a pilot scale manufacturing process has been implemented, a USDA SBIR grant has been obtained to assist in the development of this technology, new industrial coatings have been designed, manufactured, formulated, and tested and formulation efforts have been directed toward the generation of finished goods, i.e., high performance, low odor, and low VOC coatings. We are optimistic that sales of these ag derived products will commence during 2001!

In yet another of our novel ag based technologies, we have developed formaldehyde-free adhesives for use in the composites industry, specifically for particleboard and oriented strand board. The new adhesives are composed of more than 98 percent agricultural products and are comparable in properties with traditional formaldehyde adhesives. Formaldehyde emissions are regulated as formaldehyde is considered a potential cancer producing agent. Consequently, there is a move afoot to remove formaldehyde from articles of commerce. This work continues to be refined. More specifically, water absorption values have been too high and efforts have been underway during 2000 to reduce water absorption values. This goal has been met but at a slight cost; i.e., a slight reduction in internal bond strength. Thus, continual modification or property adjustments are necessary and will be the focus of work during the 2001 year. If successful, this work would provide an additional and substantial outlet for America's soy bean farmers.

In 1983, the Mississippi Legislature authorized the Polymer Institute at USM to work closely with emerging industries and other existing polymer-related industries to assist with research, problem-solving, and commercializing efforts. During the past year, seventeen new polymer-related industries have located in Mississippi. In particular, during the past four years Sunbeam-Oster, Dickten and Masch, Wellman, and Kohler have constructed facilities approaching a cost of 1.4 billion dollars and each has commented on polymer science and engineering as a significant factor in their decision to locate near to The University of Southern Mississippi and the Mississippi Polymer Institute.

The Institute provides industry and government with applied or focused research, development support, and other commercializing assistance. This effort complements existing strong ties with industry and government involving exchange of information and improved employment opportunities for USM graduates. Most importantly, through basic and applied research coupled with developmental and commercializing efforts of the Institute, the Department of Polymer Science continues to address national needs of high priority.

The focus of my work is commercialization of alternative agricultural crops in the polymer industry. This approach offers an array of opportunities for agriculture as the polymer industry is the largest segment of the chemical products industry in the world, and heretofore has been highly dependent upon petroleum utilization. However, my efforts are directed to the development of agricultural derived materials that will improve our nation's environment and reduce our dependence on imported petroleum. As farm products meet the industrial needs of the American society, rural America is the benefactor. Heretofore, this movement to utilize alternative agricultural products as industrial raw materials has received some attention but much less than opportunities warrant. Your decisions are crucial to the accomplishment of these goals as funding from this Subcommittee has enabled us to implement and maintain an active group of university-based polymer scientists whose energies are devoted to commercializing alternative crops. We are most grateful to you for this support and ask for your continued commitment.

The faculty, the University, and the State of Mississippi are strongly supportive of the Mississippi Polymer Institute and its close ties with industry. Most faculty maintain at least one industrial contract as an important part of extramural research efforts.

Polymers, which include fibers, plastics, composites, coatings, adhesives, inks, and elastomers, play a key role in the materials industry. They are used in a wide range of industries including textiles, aerospace, automotive, packaging, construction, medical prosthesis, and health care. In the aerospace and automotive applications, reduced weight and high strength make them increasingly important as fuel savers. Their non-metallic character and design potentials support their use for many national defense purposes. Moreover, select polymers are possible substitutes for so-called strategic materials, some of which come from potentially unreliable sources.

As a polymer scientist, I am intrigued by the vast opportunities offered by American agriculture. As a professor, however, I continue to be disappointed that few of our science and business students receive training in the polymer-agricultural discipline as it offers enormous potential. The University of Southern Mississippi and the Mississippi Polymer Institute are attempting to make a difference by showing

others what can be accomplished if appropriate time, energy, and resources are devoted to the understanding of ag based products.

I became involved in the polymer field 37 years ago and since that time, have watched its evolution where almost each new product utilization offered the opportunity for many more. Although polymer science as a discipline has experienced expansion and a degree of public acceptance, alternative agricultural materials are an under-utilized national treasure for the polymer industry. Moreover, there is less acceptance of petroleum derived materials today than ever before and consequently the timing is ideal for agricultural materials to make significant inroads as environmentally friendly, biodegradable, and renewable raw materials. These agricultural materials have always been available for our use, yet society for many reasons, has not recognized their potential. The following examples are included and represent opportunities other than those already described which supports this tenet:

—A waterborne, waterproofer has been designed and formulated with the help of several natural products. The material functions as a waterproofer yet is carried in water. However, after application to the intended substrate, typically wood or cementous products, the material becomes hydrophobic and highly water resistant. We have collected two and one-half years of exposure data on this product with excellent success. We have made additional contacts with industrial firms during the year in hopes for commercialization but industry is complacent and no driving force for change exists. For instance, unless VOC emission laws are tightened, little movement will be toward new, environmentally friendly, products. However, we will continue our efforts to promote the use of ag based products offering improved environmental attributes, i.e., high performance accompanied by low odor and low VOCs.

—We have exploited the potential of lesquerella, a crop that produces a triglyceride similar to castor oil. Several high performance products have been prepared and include polyesters, stains, foams, pressure sensitive adhesives, and 100 percent solid ultraviolet (UV) coatings. This technology was highlighted at the AARC/NASDA meeting in Washington, DC. We have developed a cooperative relationship with Alcorn State University, Lorman, MS to grow and thus evaluate the agronomics of lesquerella as a new crop for Southeastern U.S. region. Consequently, we have fabricated ag based foams for use as weed retardant mulches. The new foams are under test as this report is being written.

U.S. agriculture has made the transition from the farm fields to the kitchen tables, but America's industrial community continues to be frightfully slow in adopting ag based industrial materials. The prior sentence was included in my last testimony and rings true one year later as I write this report. However, we must continue to aggressively pursue this opportunity and in doing so:

—Intensify U.S. efforts to commercialize alternative crops and dramatically reduce atmospheric volatile organic content emissions. The result will be much cleaner air for all Americans.

—Reduce U.S. reliance on imported petroleum.

—Maintain a healthy and prosperous farm economy.

—Foster new cooperative opportunities between American farmers and American industry.

Mr. Chairman, your leadership and support are deeply appreciated by the entire University of Southern Mississippi community. While I can greatly appreciate the financial restraints facing your Subcommittee, I feel confident that further support of the Mississippi Polymer Institute will continue dividends of increasing commercialization opportunities of agricultural materials in American industry. Advances in polymer research are crucial to food, transportation, housing, and defense industries. Our work has clearly established the value of ag products as industrial raw materials and we must move it from the laboratories to the industrial manufacturing sector. Only then can the U.S. enjoy a cleaner and safer environment which these technologies offer, as well as new jobs, and expanded opportunities for the U.S. farmer. We are most grateful for the support you have provided in the past. The funding you have provided has allowed the laboratory work to be conducted, yet we are at the crossroads of commercialization and additional funds are needed to take this technology from the laboratory to manufacturing and to the market place. Moreover, past funding has been essentially level with some slight increases.

Since our testimony last year we have reached new levels of commercializing efforts. The technology has matured and marketing and sales must move parallel with continued commercial development of new products. Thus, we are in need of additional resources to take these technologies to the market place and to continue our developments of other exciting technologies. We therefore respectfully request $1.5 million in Federal funding to more fully exploit the potentials of commercializing the technologies described herein. When we are successful, our efforts will be recognized

as instrumental in developing a "process" for commercialization of new ag based products. That is, we will have taken a technology from the "idea" stage to commercialization. The development of this process, and to show it successful, is extremely important to all entrepreneurs who believe in ag based products. Thank you Mr. Chairman and Members of the Subcommittee for your support and consideration.

PREPARED STATEMENT OF THE UPPER MISSISSIPPI RIVER BASIN ASSOCIATION

The Upper Mississippi River Basin Association (UMRBA) is the organization created 20 years ago by the Governors of Illinois, Iowa, Minnesota, Missouri, and Wisconsin to serve as a forum for coordinating the five states' river-related programs and policies and for collaborating with Federal agencies on regional water resource issues. As such, the UMRBA has an interest in the budget for the U.S. Department of Agriculture's conservation programs and technical assistance.

Funding for conservation programs on private lands—the working lands—has eroded over time and is now less in constant dollars than during the depths of the Great Depression. The USDA's conservation programs and technical assistance are the only viable alternatives to a totally regulatory approach to improving water quality. These important programs are inadequately funded. The UMRBA supports continuation and expansion of funding for these programs.

Of particular importance to the UMRBA is funding for the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), and Environmental Quality Incentives Program (EQIP). Taken together, these three Commodity Credit Corporation-funded programs provide an invaluable means for the USDA to work with landowners, local conservation districts, and the states to ensure that agricultural productivity is maintained while protecting the nation's soil and water resources. Moreover, they do this in a voluntary, non-regulatory fashion. As stewards of some of the nation's most productive agricultural lands and important water resources, the five states of the Upper Mississippi River Basin believe these programs are vital. Strong farmer interest and state support demonstrate the region's commitment to the objectives of these programs. In 1998, state, local, and private entities matched every dollar of NRCS investment in the five states with an additional $0.80.

Unfortunately, the President's fiscal year 2002 budget request does not place sufficient priority on these three key programs. Funding for the CRP would be increased modestly to $1.788 billion. While this funding increase is certainly welcome, the UMRBA is increasingly concerned that the CRP's 36.4 million acre enrollment cap threatens its continued success. Since its inception, enhancements to the CRP have increased its effectiveness in improving water quality, soil conservation, and habitat. These same enhancements, which include noncompetitive enrollment for filter strips, riparian buffers, and similar measures as well as establishment of the Conservation Reserve Enhancement Program, have made the program more flexible and thus more attractive to farmers. But, while demand for the program is up, the CRP is unable to capitalize fully on its increased attractiveness and effectiveness because of its acreage cap, which USDA projects will be reached by December 31, 2002. Thus, the states urge Congress not only to provide sufficient funding but also to increase the enrollment cap, thereby ensuring that the CRP will continue its vital role in helping states, local communities, and landowners meet their water quality and conservation goals.

Even more pressing is the need to fund and expand the enrollment cap for the WRP, which will reach its 1.075 million acre cap before the end of 2001. Citing the cap, President Bush has not requested any fiscal year 2002 funding for the WRP. Since the WRP's establishment in 1996, its easements have proven to be important tools for restoring and protecting wetlands in agricultural areas. This is clearly evident from the overwhelming landowner response and the resulting improvements to water quality and habitat. In the fiscal year 2001 agriculture appropriations bill, Congress addressed the WRP acreage cap problem on an interim basis, increasing it by 100,000 acres. However, as noted above, this increase will be fully subscribed this year. Clearly the time is right for Congress to secure the WRP's future in a longer term way this year by significantly expanding the acreage cap and providing continued funding for this valuable program.

The CRP and WRP have been extremely effective in helping Midwest farmers to protect land and water resources by curtailing production on some of their most sensitive land. And there are certainly many more opportunities to make good use of the CRP and WRP in the region. However, it is also essential to support sound conservation practices on the far greater amount of land that remains in production. EQIP is the USDA's largest and most effective means of assisting farmers and ranchers to implement conservation practices on land currently in production. EQIP

assistance can, for example, help operators balance the new dynamics of livestock production with the need to protect soil and water resources. The President has requested level funding of $174 million for EQIP in fiscal year 2002. While the states are gratified that the new Administration supports EQIP, the UMRBA encourages Congress to increase fiscal year 2002 funding to the authorized level of $200 million and to expand the EQIP authorization as part of the upcoming Farm Bill.

The UMRBA remains concerned with the adequacy of funding and staffing levels in the NRCS' conservation operations account. The technical assistance funded through conservation operations provides the foundation for the USDA's voluntary conservation planning. The Administration has proposed an increase of $59 million in conservation technical assistance funding for fiscal year 2002. However, up to $44 million of this increase would be for CRP technical assistance costs that were previously reimbursed from the CCC. As a result, NRCS field staff will likely continue to have difficulty providing the timely, comprehensive technical assistance that farmers need if they are to participate effectively in the USDA's conservation programs. A 2001 National Workload Analysis indicates that the NRCS needs approximately 1,900 employees at the field level in Illinois, Iowa, Minnesota, Missouri, and Wisconsin. Actual field staff in the five states numbers about 1,250, or one-third below the estimated needs. The UMRBA urges Congress to ensure that the NRCS has both the staff and funding necessary to deliver its conservation programs effectively.

The Midwest and indeed much of the nation faces significant challenges in the future as dams built under the Public Law 534 and Public Law 566 programs age. More than 600 flood control structures in Illinois, Iowa, Minnesota, Missouri, and Wisconsin need rehabilitation if they are to continue to function safely and effectively. This represents approximately one-third of the structures built in the five states under the USDA's dam-building programs. Rehabilitation costs in the five UMRBA states alone are estimated at $53.9 million. Last year's enactment of the Small Watershed Rehabilitation Amendments authorized NRCS to assist in rehabilitating these structures. The UMRBA now asks Congress to provide NRCS with the funding it needs to serve as an effective Federal partner in addressing these needs.

The five states of the UMRBA acknowledge that our region faces enormous soil and water conservation needs and limited public and private resources to address those needs. In this context, it is imperative that NRCS work with the states, conservation districts, and farmers to identify and target the most pressing problems. Coordination and communication with the states is particularly critical to success in addressing the interstate resource challenges faced on the Upper Mississippi River. Success in addressing such complex, large-scale issues will not come quickly. It will require long-range thinking and commitment over time from all levels of government and from farmers. The states look to both Congress and the Administration to join them in providing such leadership.

PREPARED STATEMENT OF THE USA RICE FEDERATION

USA Rice is a federation of U.S. rice producers, millers and allied businesses working together to address common challenges, advocate collective interests, and create opportunities to strengthen the long-term economic viability of the U.S. rice industry. USA Rice members are active in all major rice-producing states: Arkansas, California, Florida, Louisiana, Mississippi, Missouri, and Texas. The U.S. Rice Producers' Group, USA Rice Council and the Rice Millers' Association are charter members of the USA Rice Federation.

SUMMARY

USA Rice supports agriculture appropriations falling into three major categories: international trade promotion, food aid and domestic programs. A total of $96 million is needed for international trade promotion, $1.507 billion for food aid and $3.825 million for domestic programs. In addition, the Foreign Agricultural Service should be funded to the fullest degree possible to ensure adequate support for trade policy initiatives and oversight of export programs like the Foreign Market Development program and the Market Access Program. All of these programs are critical for the economic health of the U.S. rice industry.

INTERNATIONAL TRADE PROMOTION

Exports are critical to the U.S. rice industry. Historically, 40–60 percent of annual U.S. rice production has been shipped overseas. U.S. rice that is not shipped over-

seas stays in the domestic marketplace, driving down already low prices for rice even further. Thus, building healthy export demand for U.S. rice should be a high priority.

In addition, exports mean U.S. jobs. According to USDA data, in fiscal year 1999, U.S. rice exports of $1 billion supported an estimated 15,200 direct jobs. Indirect jobs are estimated at more than 45,000 (unofficial USDA estimates).

Foreign Market Development

The Foreign Market Development program allows USA Rice to focus on importer, food service, and other non-retail promotion and other activities around the world. For fiscal year 2002, FMD should be fully funded at $33.5 million. As the president's budget only calls for the Office of Management and Budget to apportion $27.5 million from Commodity Credit Corporation resources for this program for fiscal year 2002, an additional $6 million (USDA, Foreign Agricultural Service) needs to be appropriated to reach the full funding level. If only the expected $27.5 million apportionment is realized, this will result in a 20 percent cut in the program from recent levels. The Foreign Market Development program allows USA Rice to focus on trade servicing activities around the world. Without a fully funded FMD program, USA Rice will have to drastically reduce and/or cancel several of its worldwide activities targeted at markets that represent major growth opportunities for future U.S. rice exports. For example, USA Rice will forgo activities in Syria and Jordan where opportunities are expected for U.S. rice as state trading continues to give way to private sector rice trading, in Eastern Europe where increasing personal disposable income should lead to increased ability to purchase U.S. rice, and in Taiwan where opportunities are expected for U.S. rice once Taiwan joins the World Trade Organization.

Market Access Program

The Market Access Program allows USA Rice to focus on consumer promotion and other activities around the world. For example, USA Rice's MAP-funded efforts to increase U.S. milled rice sales to Japan have led to a tripling (from 500 to 1,800 metric tons from fiscal year 1998 to fiscal year 1999) of U.S. milled rice being sold in identified, unblended form to the Japanese consumer. Another example is that as a result of USA Rice's MAP-funded in-store promotions in Guatemala this year, not only did sales of U.S. rice jump 25 percent during the promotion, but also a Guatemalan company is now importing U.S. rough rice, processing it, and labeling as "U.S. rice" on its consumer retail packaging. For fiscal year 2002, MAP should be fully funded at $90 million (USDA, Foreign Agricultural Service), the level currently authorized. Ideally, the program should be funded at $200 million as called for in legislation such as H.R. 98 and S.366.

USDA/FAS

Equally important to these programs is an adequately staffed and funded Foreign Agricultural Service in Washington, D.C. and in our embassies overseas. USA Rice and other agricultural groups rely on the significant expertise these agricultural experts bring to the table, and we rely upon them to help us gain, grow, and maintain market access worldwide. FAS should be funded to the fullest degree possible to ensure adequate support for trade policy initiatives and oversight of export programs like the Foreign Market Development program and the Market Access Program.

FOOD AID

Food aid continues to be vital to the health of the rice industry and local economies as an instrument to remove excess rice stocks from the U.S. market, generate business, stabilize prices, and create market development by allowing entry into foreign markets not otherwise accessible to the United States. Nearly half of all U.S. grown rice is exported. Over twenty percent of this amount is reliant on food aid programming. In fiscal 2000, this accounted for nearly 9 million hundredweight (400,000 metric tons) of rice that otherwise would have remained on the U.S. market, severely impacting the welfare of farmers, millers, and allied industries by driving down prices, eliminating jobs, and undermining the infrastructure of the industry and local economies.

Rice farmers as well as millers are dependent on food aid in order to remain financially solvent. Without adequate food aid funding levels, milling capacity is underutilized. Delays in the release of food aid funding in fiscal 2001 by OMB have meant fewer tenders, forcing some millers in the South to temporarily shut down operations, creating economic hardship for these businesses and for local workers. Such continued hardship would force these operations to close permanently. Rice farmers are equally dependent upon the stabilizing effect of food aid movements as

a price support mechanism. With production costs nearing the $12.00 per cwt. mark, where they are approximately double the current market price, the reduction of ending stocks from the U.S. market is crucial to help increase prices, and avoid further emergency assistance.

Last year the movement of rice food aid accounted for 1,200 jobs, and created an influx of millions of dollars to local economies in terms of labor hours, utilization of equipment and services, and investment in the rice industry infrastructure. This level of economic activity was dependent the use of value-added rice in food aid programs. For every 1 million hundredweight of U.S. food aid sent as rough rice rather than value-added, the total effect on the U.S. rice industry would be a loss of $23 million and nearly 136 jobs in the six rice-producing states. The rice producer as well as the rice miller directly benefits from value-added product. In years of larger supply, the margin of premium gained by the producer from value-added rice increases dramatically. For instance, in the 1999 crop year, one grower cooperative returned an average of 60 cents per bushel on milled rice over rough rice returns. Farmer-owned cooperatives account for about 40 percent of the rice milled in the United States.

Last year, 9 million hundredweight of rice was exported as food aid. The economic gain generated by further processing was retained within the United States. Furthermore, taxpayer dollars, including those of U.S. rice producers and millers, fund food aid programs. The U.S. government should maximize the use of taxpayer dollars by exporting the highest value product possible, not use U.S. taxpayer dollars to subsidize the development of foreign processing facilities. For these reasons, the appropriations bill language should indicate that for rice, only value-added products are to be used in food aid.

Food aid programs are critical for the United States in maintaining its competitive position in the global marketplace. Overall, exports of U.S. agricultural commodities, including rice, are decreasing. The United States must look to new markets and gain access to developing markets in order to rebuild its comparative export advantage. Food aid is the only tool that allows for entry into an underdeveloped country's market when it cannot afford to pay a premium for high quality U.S. product, further aggravated by currency devaluations. Food aid allows a preference for U.S. rice to develop among foreign consumers and trade, setting the stage for future commercial sales when foreign economies improve. Food aid continues to be fundamental to humanitarian assistance efforts.

Public Law 480 Title I

Maintain $180 million in funding (USDA, Foreign Agricultural Service), with retention of at least $160 million dedicated to commodity loans, and any additional funding being allocated to freight and financing expense. Congress has recently criticized high funding carry-over levels in this program; funding carry-over has been diminished due to use in funding Title I Food for Progress sales to Russia in fiscal 2000. Therefore, retention of base level funding is necessary. Through work with FAS and foreign governments, USA Rice helps maintain a high percentage rate of successful agreement fulfillments, avoiding carry-over of unused funds. Public Law 480 sales into developing countries such as the Philippines have provided a critical link to local trade. Under Title I, 104,000 metric tons of U.S. rice reached the trade and consumers in the Philippines last year that otherwise would not have been competitive with Asian suppliers. Just as importantly, the movement of this rice enabled the U.S. rice industry to access local trade that is now allowed to transact limited private imports as the Philippines slowly transitions from monopoly control of sales under a state trading entity to a more liberalized market. By cultivating relationships with local trade through the Public Law 480 Title I program, a private commercial sale of thousands of metric tons of premium quality U.S. rice was made to the Philippines this year. This is a critical step in developing long-term prospects for a high quality niche market for U.S. rice in the Philippines.

Public Law 480 Title II

Maintain $837 million funding level (USDA, Foreign Agricultural Service). As Public Law 480 title I funding levels have declined by $580 million since 1990, other food aid programs are now crucial to maintain movement of rice stocks. Title II projects involving private voluntary organizations (PVO's) that monetize rice to fund other development projects are the most far-reaching vehicle to introduce U.S. rice into markets where the United States has limited or no commercial access. For instance, in Ghana, since the 1980's, as a result of Public Law 480 program penetration, U.S. rice has become the benchmark of quality in rice for Ghanaian consumers and remains the product against which all other imported rice is gauged. U.S. rice sales have grown steadily over the last five years, and in 1999 sales of almost

77,000 metric tons represent an 18 percent increase over 1997, and account for about 33 percent of the total market.

Food for Progress

Maintain $94 million funding level (USDA, Foreign Agricultural Service). The Food for Progress program is particularly effective for market development because rice moves into the foreign market at local market prices. USA Rice works closely with PVO's in this program to develop trade connections. Increased movement of rice through this program is needed to most effectively target new markets, and to enable the United States to maintain market share when U.S. rice would otherwise be unable to compete commercially. This was the case in Cote D'Ivoire in the late 1990's, when the effects of currency devaluations in both Cote D'Ivoire and Thailand, a leading rice competitor of the United States, led to a period where U.S. rice could not compete commercially. Some market share was maintained through Food for Progress programs, which enabled quick recovery when conditions improved. This enabled retention of a market that had originally grown from a niche market to a large importer due to Public Law 480 sales. Imports of U.S. rice, including both commercial and government assistance programs, rebounded from around 1,000 metric tons in 1998 to over 25,000 metric tons in 1999 and 2000.

Global Food for Education Initiative

The Global Food for Education Initiative should be funded (USDA, Foreign Agricultural Service) for fiscal year 2002 at $300 million for preschool and school feeding programs and $50 million for maternal and infant health and feeding programs, per draft legislation of "George McGovern-Robert Dole Global Food for Education and Infant Feeding Act of 2001." This program is designed to most efficiently deliver food to its targeted group. It will provide much need alternative access for distribution of rice to offset losses in other programs.

DOMESTIC PROGRAMS

Rice Research

The Dale Bumpers National Rice Research Center should be funded for fiscal year 2002 at a minimum of $3.675 million, the same level as fiscal year 2001 (USDA, Agricultural Research Service).

The mission of the Dale Bumpers National Rice Research Center is to conduct research to help keep the U.S. rice industry competitive in the global market place, by assuring high yields, superior grain quality, pest resistance, and stress tolerance.

The DB NRRC is an $11.2 million, state-of-the-art laboratory. The 46,000 square foot DB NRRC contains offices, research laboratories, seed storage, and greenhouse space. The DB NRRC has USDA-ARS scientists in eight research categories: genetics, germplasm evaluation and enhancement, biology and control of weeds, cereal chemistry, molecular genetics, cytogenetics, molecular plant pathology and molecular biology. Shared laboratory space also is provided for the University of Arkansas rice research groups, as well as visiting scientists.

Blackbird Control

The Louisiana blackbird control project should be funded for fiscal year 2002 at $120,000 and the blackbird control research at $30,000. This is the same level of funding as fiscal year 2001 (USDA, Animal Plant Health Inspection Service). This program has been critical in reducing the damage this pest does to rice fields. If not controlled, blackbirds can significantly reduce rice yields, resulting in substantial loss of income to the producer.

PREPARED STATEMENT OF THE UNITED STATES BEET SUGAR INDUSTRY

INTRODUCTION

The United States Beet Sugar Industry continues a long and productive working relationship with the Agricultural Research Service of the United States Department of Agriculture. Since before 1938, USDA–ARS research on sugarbeet has provided essential germplasm and knowledge to the U.S. sugarbeet industry. USDA–ARS research continues to enhance the productivity and profitability of growers across the United States. Over 50 years ago, the Beet Sugar Development Foundation signed a Memorandum of Understanding with the USDA–ARS, providing for close cooperation in defining, funding, and meeting challenges to the sugarbeet industry through research. No other public program in the United States, other than ARS, is involved in breeding disease resistance for sugarbeet. And no other program in the United States is involved with the fundamental biology of sugarbeet.

Sugarbeets are produced on over 10,000 farms in 15 states (including seed production), often in northern tier states where crop choices are limited, population densities are low, and rural economies are heavily reliant on sugarbeet production. Market forces are reshaping sugar processing economics, with the increasing result that most growers own and operate their factories as cooperatives. Few, if any, of these cooperatives are able to provide the needed basic research that will keep the U.S. sugar beet industry viable

Over the years, the industry has noted a decline in the number of USDA–ARS scientists involved in sugarbeet research. As it has been in the past, the products of this research are vital for the future of our domestic industry. Currently, there are five USDA–ARS stations serving the national research needs of the U.S. sugarbeet industry. A brief summary of the activities and accomplishments at each sugarbeet research location as well as the status of personnel and funds at each location is provided below. Also included is an industry perspective on the resources required at these locations to maintain and enhance our current efforts. For budgeting, we have used the USDA–ARS baseline figure of $300,000 per SY (scientist year).

KIMBERLY, ID

There is one very large void in the USDA–ARS sugarbeet research program. We grow 230,000 acres of sugarbeets in Idaho and eastern Oregon. Although all of the USDA/ARS stations work together on common problems in the industry nationwide, there is a great need for USDA/ARS sugarbeet research for this growing area with its unique challenges. The USDA/ARS has an existing research station in Kimberly ID, in the heart of the beet growing area. The addition of a sugarbeet unit to this existing station would be an excellent fit. We know that a USDA/ARS sugarbeet research program at this location would strengthen national sugarbeet research in three significant ways. We propose a new unit that would include a Physiologist, an Irrigation Specialist and an Agronomist/Crop Fertility Specialist.

The Station at Kimberly has particular strength in Irrigation/Water Use research. The Irrigation Specialist would fit well with that group. It has been many years since irrigation work was done on sugarbeets, and this is especially needed with the increase in overhead irrigation. In growing areas where we are required to irrigate, the cost of water, along with the energy costs of pumping and distributing the water are major factors in the cost of production. With the current energy situation and outlook, an irrigation specialist for sugarbeet and other row crops is desperately needed.

Although there has been considerable work done on sugarbeet fertility, basic work has been lacking recently on the interactions between fertility, genotype, irrigation, and crop quality. The research an Agronomist/Crop Fertility Specialist would do in this area is very much needed. This is an area that is also tied to the energy situation, since the majority of our fertilizers are produced from petroleum products. The costs of these inputs are steadily increasing. Also, a major problem in sugarbeet processing in the presence of impurities in the beet. This can be caused by over or improper fertilization. Of course, fertility is not isolated to one years' crop, but must be studied as an ongoing evolution, taking into consideration the other crops in the rotation.

Finally, a Physiologist to work with crop biochemistry and post harvest storage is needed, not only for the Idaho area, but also for all growing areas. The area of crop biochemistry is directly related to the Irrigation Specialist and the Fertility Specialist. The basic knowledge to understand the best and most efficient usage of water and fertilizer, will require the input of physiological factors in sugarbeet development. Sugarbeet storage has been mentioned at three locations in this write-up. This is not by accident, and certainly not a duplication of efforts. Decreasing losses in the storage pile is a major component to profitability of the beet sugar industry. Each of the areas, where storage work in either going on or proposed to go on, are unique. Therefore they need to be investigated independently, however, these three stations working in unison would definitely be able to interact, and we are sure, speed up the delivery of useful results. Information obtained from all of these research areas is a national priority. We feel we would need $1,250,000 to start this program with three SY's and capital investments in research equipment.

FT. COLLINS, CO

This station currently has three SY's working on CRIS projects involving sugarbeets. There is one Research Geneticist/Plant Breeder, one Plant Physiologist/Biochemist and one Plant Pathologist. The Fort Collins Unit is funded at a level of $750,413.00. A Molecular Geneticist is needed to complement the skills of the cur-

rent geneticist and plant breeder, who is also Research Leader. An increase of $500,000 is needed in this program.

This station is the primary source of germplasm with resistance to Rhizoctonia root rot worldwide. It also is the primary ARS station involved in breeding for resistance to Cercospora leaf spot and has a very active program breeding for resistance to the curly top virus.

One of the major pests lowering sugarbeet production in the US is the sugarbeet cyst nematode. Basic biochemical research on the mechanism of action of mustard and radish crops that can be used to decrease the soil concentration of this nematode has been undertaken in Fort Collins. Use of these "trap crops" can contribute to gains in productivity without the use of fumigants.

Biological control research is ongoing at Fort Collins using Trichoderma strains. In other crops, a single seed treatment with similar strains has been demonstrated to reduce severity of several diseases, which cause seedling death. The use of one treatment to control multiple diseases would reduce cost of fungicides for disease control.

Critical to solving many disease problems is the ability to complement traditional breeding, biochemistry, and plant pathology approaches with a molecular genetics approach. Researchers at Fort Collins have begun investigations to provide molecular markers and to identify resistance genes for sugarbeet diseases to increase efficiency in the plant breeding process.

In addition to improved germplasm, new plant breeding techniques, and better disease management techniques, the Fort Collins scientists emphasize research addressing sugarbeet's biochemical quality, especially as it affects the amount of sugar that can be recovered through current processing technology. Scientists have worked with processing companies to assess and improve sucrose and chemical quality analysis procedures, which has reduced processing costs. Research to assess the effects of various diseases on the quality of beets held in storage before processing is being planned. Disease can have a tremendous impact on the potential amount of sucrose that can be extracted from such stored beets, and increase the cost of processing.

EAST LANSING, MI

This Station currently has three SY's working on two CRIS projects involving sugarbeets. They include one Molecular Geneticist, one Geneticist and one Pathologist. The Genetics CRIS has two scientists, and a total of $389,000, short $211,000 from the ARS target. The Pathology CRIS has one scientist projected to retire in the near future and a total of $169,500, or $130,500 short. Each of these positions is needed for future viability of the industry. In addition, a Physiologist /Biochemist position is needed to characterize processes of sucrose accumulation and focus on modifying those processes for alternative uses for sucrose. Expanding the uses of sucrose is the key to expanding profitability in sugarbeet production. This position would require $300,000. Therefore, a total request for East Lansing of $641,500.

The sugarbeet Genetics program at East Lansing has three primary responsibilities: (1) to continue and strengthen sugar beet germplasm enhancement for the Eastern U.S. growing areas ongoing for 70 years, (2) to develop and apply molecular methodologies for dissection of genetic traits, and (3) to elucidate mechanisms and engineer solutions to persistent seedling emergence and stand establishment problems.

Field emergence and stand establishment is perennially among the concerns for sugar beet growers. Recent results implicate a single gene that describes the difference between good emerging varieties and poor emerging varieties. This conclusion could only be drawn by the judicious application of the modern, and expensive, technologies that can now be applied to solve pernicious problems in sugarbeet growth.

In very few instances is it known what genes influence agronomic traits in sugarbeet. With increasing requirements for multiple disease resistant sugarbeets in all areas of the U.S., it is imperative to be able to tailor gene combinations efficiently to meet changing environmental challenges imposed by these new disease pressures. The East Lansing location is developing the requisite materials to discover and deploy these genes.

The Pathology/Physiology position at East Lansing conducts disease nurseries and examines pathogen populations throughout the growing regions, examining the structure of pathogen populations for type and fungicide resistance, and examining mechanisms of disease resistance that may be exploited for germplasm enhancement. This position interacts closely with growers and agronomists, and provides management options and recommendations when disease problems occur. The pathogens that affect the Eastern growing region occur elsewhere, but are particu-

larly severe and occur regularly in Michigan. One reason costs of production are lower in Michigan than elsewhere in the U.S., aside from the lack of irrigation costs, is the wide use of disease resistant varieties. Resistance appears to carry a yield penalty, and one important future goal is to create high yielding, highly resistant sugarbeet germplasm that can be deployed through breeding.

One of the keys for any commodity to develop new uses to identify alternative market. Sucrose is the most abundant, chemically pure, renewable resource on the planet, and would be ideal as a chemical feedstock for industrial and other chemicals. The only limitation for using sucrose industrially is its over-functionality. That is, chemical reactions are difficult to control because of the large number of potentially reactive sites on the sucrose molecular. The goal of the Physiologist /Biochemist CRIS is to develop strategies that would block most of the reactive groups, and allow for controlled chemical reactions.

FARGO, ND

The Fargo ARS Station currently has three SY's working on CRIS projects involving sugarbeets. Unit scientists include one Pathologist, one Geneticist and one Physiologist. The CRIS funding for this location is $974,084.00. The sugarbeet industry is plagued by several major production problems in this area. Pre-harvest losses include crop damage incurred by the sugarbeet root maggot and by fungal diseases, such as root rot caused by Aphanomyces and leaf spot. Unit research activities include two major thrusts addressing these issues. Research focusing on both disease resistance and crop protection, as well as pathogen virulence is being actively pursued and is making excellent progress. A major portion of the unit's Genetics and breeding efforts is directed at identifying and introducing plant resistance to the sugarbeet root maggot. Research on sugarbeet physiology is directed toward identifying the internal processes that affect sucrose accumulation and retention in sugarbeets.

Decreased pesticide use would greatly reduce producer's input costs. To this end, an entomologist conducting research on root maggot biology or on other insect-related problems of national importance (e.g. sugarbeet root aphid, beet army worm, nematodes) could be added. This research would compliment current unit efforts in breeding natural resistance to sugarbeet root maggot as well as investigating field application of a biological insecticide for root maggot control.

Improvements in the management of postharvest beet storage would also result in increased profitability. Postharvest deterioration of piled beets due to storage pathogens, harvest injury, and temperature extremes and other physiological processes occurs frequently and results in the loss of a large portion of the harvested sucrose. Fundamental research into maintenance of sugarbeet quality during storage would therefore be appropriate for this location. These studies would complement current physiological studies on sucrose metabolism in sugarbeets. We feel an increase of $300,000.00 would be needed to fill either an Entomology or Storage (Physiology) SY position at this location.

SALINAS, CA

This station currently has four SY's working on CRIS projects involving sugarbeets. They include two Virologists and two Geneticists. The Virology CRIS is funded at $647,027.00. This virology program has been very productive in the past and continues to produce information which is used not only in California, but across the entire sugarbeet production area. This team continues the excellent virology work at this station. At this time, this CRIS, we feel has adequate funding. The Genetics CRIS is funded at $571,620.00. According to USDA/ARS baseline, the Genetics CRIS is currently under funded, we agree. Salinas unquestionably has the world's foremost sugarbeet breeding program. Germplasm created from this program has been used worldwide. The incorporation of genes for Rhizomania resistance, not only saved the industry in California, but is now used throughout the country and throughout the world. They are also concentrating their breeding efforts on sugarbeet cyst and rootknot nematode. These are a major pest in many growing areas, and ones that have very limited chemical control means. The chemical control means available are very expensive. It is imperative that this program continue. We are requesting and increase of $100,000.00 annually to fund this CRIS at a level where quality research can be conducted.

BELTSVILLE, MD

This Station currently has two SY's working on CRIS projects involving sugarbeets. They include one Microbiologist and one Pathologist. This station is ade-

quately funded at a level of $650,000.00 and doing a good job. No additional funding is requested for Beltsville.

SUMMARY OF NEEDED FUNDING

Kimberly, ID	$1,250,000.00
Ft. Collins, CO	500,000.00
East Lansing, MI	641,500.00
Fargo, ND	300,000.00
Salinas, CA	100,000.00
Beltsville, MD	0

PREPARED STATEMENT OF THE U.S. MARINE SHRIMP FARMING CONSORTIUM

Mr. Chairman, we greatly appreciate the opportunity to provide testimony to you and the Subcommittee, to thank you for your past support and to discuss the achievements and opportunities of the U.S. Marine Shrimp Farming Program.

We would like to bring to your attention the success of the U.S. Marine Shrimp Farming Consortium and its value to the nation. The Consortium consists of institutions from six states: The University of Southern Mississippi/Gulf Coast Research Laboratory, Mississippi; The Oceanic Institute, Hawaii; Tufts University, Massachusetts; Texas A & M University, Texas; The Waddell Mariculture Center, South Carolina; and the University of Arizona, Arizona. These institutions have made major advances in technology to support the U.S. shrimp fanning industry, and the program's excellent performance through multi-state collaboration has been recognized by the USDA in its recent program reviews. The Consortium is at a point of opportunity to make significant contributions to building the U.S. industry, reducing the trade deficit, and satisfying increasing consumer demand for shrimp. Seafood imports constitute the second largest trade deficit item for the U.S. at $7.1 billion and shrimp represents approximately half of this deficit.

ACCOMPLISHMENTS

The Consortium, in cooperation with private industry, industry associations, and government agencies has generated new technologies for producing premium quality marine shrimp at competitive prices. To date the program has: (1) established the world's first and currently most advanced breeding and genetic selection program for marine shrimp; (2) completed pioneering research and development of advanced diagnostic tools for disease screening and control; (3) described the etiology of shrimp diseases associated with viral pathogens; (4) fostered shrimp production at near-shore, inland/rural farm and even desert sites; (5) served a lead role in the Joint Sub-committee on Aquaculture's efforts to assess the threat of globally transported shrimp pathogens; (6) supplied the U.S. industry with selectively bred and disease resistant shrimp stocks; (7) developed advanced technology biosecure shrimp production systems to protect both cultured and native wild stocks from disease; and (8) developed new feed formulations to minimize waste generation. These accomplishments are encouraging. The advances in these fundamental areas have provided the foundation for achieving our overall goal.

INDUSTRY VULNERABILITY

While exceptional progress has been made, this emerging and important industry is continually confronted with new challenges. It depends on the U.S. Marine Shrimp Farming Program for high-health and improved stocks, disease diagnosis and production technologies. As a result of the consortium's support, the U.S. industry has maintained relative stability while other countries have had major losses in their production due to diseases and environmental problems. Disease losses due to exotic viruses in Asia and Latin America during the last year approached $1 Billion and $250 million U.S., respectively. We are happy to report that U.S. farmers experienced no disease outbreaks during the same period while at the same time producing record harvests. In addition to supporting today's industry, our advanced biosecure shrimp production systems will allow the expansion of shrimp farming into near-shore, inland/rural, and desert sites away from the environmentally sensitive coastal zone.

INDUSTRY INDEPENDENCE

As a result of the work of the Consortium, investor confidence is increasing. Notably, within the last three years, new shrimp farm startups have begun in Mis-

sissippi, Hawaii, Texas, Arizona, South Carolina and Florida and are being considered in other states. Importantly, these new production technologies produce the highest quality shrimp at world competitive prices, consume U.S. grains as feed, and do not pose any threat to the environment. Shrimp farming is the newest agricultural industry for the U.S., and CSREES has suggested that our program represents a model program for resolving important problems and capturing opportunities in both agriculture and aquaculture.

To begin completion of our remaining tasks, an increase in the current funding level from $4.177 million to $5 million is being requested. Allocation of $5 million per year for the next few years to work in cooperation with the private sector, to support existing efforts, and to build this new industry with its associated jobs and economic benefits is in the best interests of the nation.

Mr. Chairman, the U.S. shrimp farming industry and our Consortium deeply appreciate the support of the Committee and respectfully ask for a favorable consideration of this request.

PREPARED STATEMENT OF THE WILDLIFE MANAGEMENT INSTITUTE

Dear Mr. Chairman: I am Ronald R. Helinski, Conservation Policy Specialist for the Wildlife Management Institute. Established in 1911, the Institute is staffed by professional wildlife scientist and managers. It's purpose is to promote the restoration and improvement of wildlife in North America. I am submitting testimony for the Senate Subcommittee on Agriculture, Rural Development and Related Agencies concerning appropriations for:

NATURAL RESOURCES CONSERVATION SERVICE

With such a short timetable I will hit the highlights of each line item/program and offer observations on impacts of this proposed fiscal year 2002 budget on conservation, particularly this nation's fish and wildlife resources.

Conservation Technical Assistance—The proposed increase of $59 million dollars is woefully inadequate to meet the needs of farmers, ranchers and private landowners who have or plan to participate in the current Farm Bill programs. Technical assistance is an expected service. It is provided by natural resource professionals to assist farmers, ranchers and private landowners in the planning, implementation and evaluation of said programs. It has often been argued that private landowner participation hinges on what kind of support the constituent obtains from those professionals. Given a 5:1 demand for EQIP, 5:1 for WRP, and 3:1 demand for WHIP, landowners EXPECT those services and guidance.

Admittedly, there is a need for more personnel in NRCS to provide this on-the-ground service. Consideration to alternative providers is one way to help address this endemic problem. WMI suggests that through the the leveraging of NRCS monies, state fish and wildlife agencies and conservation NGO's are in a position to help fill this void. Currently, this type of infrastructure is in place in many states including Missouri, Kentucky, Georgia, Texas and Arkansas. Reimbursement from NRCS to state agency personnel would go a long way to help resolve this problem. The state fish and wildlife agencies bring professional expertise to the table and are experienced in developing conservation plans to assist with the current overwhelming demand of Farm Bill applications.

Specific Farm Bill Programs.—WHIP and WRP programs without a doubt are two of the most successful programs to ever come down the road for private landowners. As mentioned above, the current demand for the programs speak volumes to there popularity. This popularity equals additional monetary assistance to landowners in this time of economic decline. The conservation bonus has helped resolve many natural resource problems while acting as a long term investment for providing quality of life improvements for this nations citizens.

WRP.—Increase the cap on WRP to 3.5 million acres or the annual enrollment cap to 250,000 acres. With a 3:1 ratio of applications to approved projects, the demand exists. Projects should be designed more carefully to help achieve wildlife restoration goals. Currently there is no additional acres for enrollment in 2002, this needs to be corrected.

WHIP.—Provide $100 million annually. WHIP projects have reached non-traditional farm bill constituents where they have been able to address many endangered species scenarios while keeping regulations to a minimum. This program was embraced by landowners and formed many partnerships between USDA (NRCS) and non-Federal organizations, resulting in tremendous leveraging of non-Federal dollars.

Section 211 (b) of the Agricultural Risk Protection Act provided an additional $40 million for soil and water conservation assistance. The 2001 Consolidated Appropriations Act gave the Secretary the authority to reallocate these funds to WHIP and FPP, $8 million in additional funds was provided for FPP and $12 million was allocated to WHIP. The original allocation was $20 million allocated to WHIP. It goes without saying that the recognition of the utility and need for this program comes up year after year. It's time to allocate the necessary monies to make this a true national program. The allocations to the Northeast and far Western states are inadequate to meet these regional needs. In fact, WHIP is of the same stature as CRP to these regions.

Forestry Incentive Program.—WMI recommends creating one non-industrial private landowner cost-share assistance program by combining the existing Forestry Incentives Program (FTP with the Stewardship Incentives Program (SIP) and fund it at $100 dollars. A financial incentives program is needed to encourage private land owners to adopt management practices that respond to national needs for healthy sustainable forests.

Farmland Protection Program.—Provide $200 million for the Farmland Protection Program. Require conservation easements under the program to consider wildlife habitat, in addition to soil, and water conservation.

Forest Legacy Program.—Increase to 5200 million annually. The Forest Legacy Program has a proven track record of protecting productive forestlands from development and fragmentation. Weather through conservation easements or fee purchase, Legacy focuses on state assessments of need to set program priorities. Public benefits amass from both environmental and economic values.

Forest Stewardship.—Provide $50 million per year to increase planning assistance to private forest landowners. Non-industrial private forestland owners provide great benefits to wildlife through their forest management. Forest Stewardship plans ensure that non-commodity forest resources such as soil, water and fish and wildlife recreation and aesthetics are considered and balanced with commodity outputs.

FARM SERVICE AGENCY

With an environment that includes low commodity prices and shrinking overseas markets, producing more commodities will not solve the problem. Given that there is no foreseeable change in this equation, giving private landowners options for other monetary sources would be a good thing. As I review the submitted budget for fiscal year 2002 I see a number of popular Farm Bill programs being zeroed out. CRP has been a mainstay on this countries landscape. CRP has enabled private landowners to retire land to assist this country with soil, water and wildlife habitat enhancement. Alternative opportunities are presented for farmers and ranchers to secure additional monies for helping to improve the quality of life for all our citizens. Why stop now when the job is far from being completed.

CRP.-On page 102 of the Budget for fiscal year 2002 it shows a zero allocation for obligations and technical assistance (CCC funds). What a mistake this would be. CRP is USDA's largest conservation/environmental program. It also includes the Buffer Initiative and Conservation Reserve Enhancement Program (CREP) programs. WMI recommends raising the cap on CRP to 63.9 million acres (with a minimum of 45 million acres). A sensible approach to reduce excess production capacity through long-term idling of surplus cropland exists in this very popular program. The demand by landowners is tremendous. The program has enhanced more wildlife populations than any action ever taken in this nation. CRP has helped raise commodity prices, too. The value of the CRP's improvements to wildlife viewing and to pheasant hunting has been estimated at $704 million/year (Claassen et al., 2001). Specific improvements to CRP include state flexibility in addressing rental rates and seed mixtures, along with natural regeneration on riparian buffers and marginal pastures.

Technical Assistance.—In fiscal year 2001, $26 million was obligated for technical assistance services (see page 108 The Budget for fiscal year 2002). It is zeroed out for fiscal year 2002. If we minimally increase the cap to 45 million acres we will need an increase in technical assistance between percent 60 to 80 million dollars. If you refer to the section above entitled "technical assistance" under the MRCN section you will find that there is an alternative to this request.

PREPARED STATEMENT OF THE STATE OF WYOMING

This statement is sent in support of fiscal year 2002 funding in the amount of $12,000,000 for the Department of Agriculture's Colorado River Salinity Control (CRSC) Program, which, pursuant to Public Law 104–127, is a component program

within the Environmental Quality Incentives Program (EQIP). The U.S.D.A.'s Natural Resources Conservation Service designated the Colorado River Salinity Control Program as a national conservation priority area in fiscal year 2000. I request inclusion of this statement into the formal hearing record concerning fiscal year 2002 appropriations.

Wyoming views the inclusion of the CRSC Program in EQIP as a direct recognition on the part of Congress of the Federal commitment to maintenance of the water quality standards for salinity in the Colorado River—and that the Secretary of Agriculture has a vital role in meeting that commitment.

The State of Wyoming is a member state of the seven-state Colorado River Basin Salinity Control Forum, established in 1973 to coordinate with the Federal government on the maintenance of the basin-wide Water Quality Standards for Salinity in the Colorado River System. The Forum is composed of gubernatorial representatives and serves as a liaison between the seven states and the Secretaries of the Interior and Agriculture and the Administrator of the Environmental Protection Agency (EPA). The Forum advises the Federal agencies on the progress of efforts to control the salinity of the Colorado River and annually makes funding recommendations, including the amount believed necessary to be expended by the USDA for its on-farm CRSC Program. Overall, the combined efforts of the Basin states, the Bureau of Reclamation and the Department of Agriculture have resulted in one of the nation's most successful non-point source control programs.

Farmers and agricultural producers in the five project areas of Colorado, Utah, and Wyoming, where the Program's salinity control efforts are underway, have been willing participants in the salinity reduction effort. The salinity control effort has cost-sharing partners ready to participate, and through use of the Upper and Lower Colorado Basin Development Funds, additional funding above and beyond appropriations to the USDA can be expended to further increase the maximization of environmental benefits per appropriated dollar expended.

One of the five CRSC Program units presently being implemented is located in southwestern Wyoming. The Big Sandy River Unit is located within the boundaries of the Eden Valley Irrigation and Drainage District. About 15,800 acres are irrigated on the District's lands each year, and it is projected that about 85 percent of the District's lands will have salinity reduction practices in place at full implementation of this CRSC Program unit. With that level of participation, the Natural Resources Conservation Service (NRCS) has projected that 53,000 tons of salt will annually be prevented from entering the Colorado River system. The majority of the producers have opted to install center pivot sprinkler systems as the means to greatly increase their irrigation application efficiency.

For the past 17 years, the seven-state Colorado River Basin Salinity Control Forum has actively assisted the U.S. Department of Agriculture in implementing this unique, collaborative, and important program. At its recent October 2000 meeting, the Forum recommended that the U.S. Department of Agriculture Colorado River Basin salinity control program, a component part of the EQIP, should expend $12,000,000 in fiscal year 2002. This funding level is appropriate to reduce a growing "backlog" in meeting the pace of necessary salt loading reductions. Failure to maintain the standards' numeric criteria could result in the imposition of state-line water quality standards and impair the Colorado River Basin states' ability to develop their Compact-apportioned water supplies. "Catch-up" funding in the future will require expending greater sums of money, increasing the likelihood that the numeric salinity criteria are exceeded, and create undue burdens and difficulties for one of the most successful Federal/State cooperative non-point source pollution control programs in the United States.

The State of Wyoming greatly appreciates the Subcommittee's support of the Colorado River Salinity Control Program in past years. We continue to believe this important basin-wide water quality improvement program merits funding and support by your Subcommittee.

RELATED AGENCY

COMMODITY FUTURES TRADING COMMISSION

PREPARED STATEMENT OF JAMES E. NEWSOME, ACTING CHAIRMAN

Thank you, Chairman Kohl and members of the Subcommittee. I am pleased to submit this testimony on behalf of the Commodity Futures Trading Commission.

First, I would like to discuss the mission and responsibilities of the agency and provide you with a detailed description of the manner in which we have used previous budget allocations. Then, I would like to describe how the profound changes in the regulatory landscape that have resulted from the passage of the Commodity Futures Modernization Act of 2000 will impact our budget plans for fiscal year 2002.

MISSION OF THE AGENCY

Since creating the Commission in 1974, Congress has tasked the CFTC both with protecting participants in the commodity futures and options markets against manipulation, abusive trade practices, and fraud and with enabling the markets to serve better their critically important economic role of providing a mechanism for price discovery and a means of managing risk. Most of the participants in the futures and option markets are commercial or institutional users of the commodities they trade and those commodities wind up ultimately in countless food and consumer products or are consumed in the provision of many important services.

The mission of the Commodity Futures Trading Commission as an oversight regulator is two-fold: (1) to foster open, competitive, and financially safe and sound futures and options markets in the United States, and (2) to protect the public from fraud, manipulation, and abusive practices in these markets. To achieve these goals, the Commission employs a well-trained, dedicated, and responsive staff, consisting of lawyers, economists, accountants, auditors, futures trading specialists, computer specialists, and support and administrative staff. The staff is primarily comprised of three main operating divisions (Economic Analysis, Trading & Markets, and Enforcement), and two offices (Office of International Affairs and Office of the General Counsel). The Commission is headquartered in Washington, D.C. and maintains regional offices in Chicago, New York, Kansas City, Los Angeles and Minneapolis. Commission staff oversee the activities of futures exchanges and registrants—futures commission merchants, salespeople, floor brokers, floor traders, commodity pool operators, commodity trading advisors, and introducing brokers-in addition to working with the exchanges as self-regulatory organizations (SROs) and the National Futures Association (NFA), a statutorily recognized SRO overseen by the Commission, to maintain safe and secure markets.

RESPONSIBILITIES OF THE AGENCY

The oversight functions of the Commission encompass many diverse areas. The Division of Economic Analysis (EA) has a critical responsibility to ensure that futures and option markets operate competitively, free of manipulation and congestion, and serve the risk-shifting and price discovery needs of the United States and world economies. EA staff conduct daily market surveillance to ensure that the markets are functioning in an orderly manner and can, in an emergency, order an exchange to take specific action to restore an orderly market. EA staff also analyze reports of large trader positions in order to identify and address potentially problematic concentrations in the marketplace. The Commission is briefed weekly regarding any surveillance issues or concerns, and additional briefings are scheduled as necessary in response to specific market events. EA staff maintain ongoing liaison with other Federal regulators—for example, the United States Department of Agriculture and the Federal Energy Regulatory Commission—to discuss issues of common interest and to share information regarding market conditions.

The Division of Trading and Markets (T&M) develops, implements, and interprets regulations that protect customers, prevent trading and sales practice abuses, and assure the financial integrity of the futures markets and firms holding customer

funds. T&M staff oversee the compliance activities of the futures industry self-regulatory organizations, including the futures and options exchanges, their clearinghouses, and the NFA. Regarding solicitation of customers, T&M staff monitor issues relating to the requirements that registrants disclose market risks and past performance information to prospective investors. T&M staff also review registrant compliance with the requirements that customer funds be kept in accounts separate from those maintained by the firm for its own use. In addition, staff ensure that customer accounts are adjusted to reflect the current market value at the close of each trading day. T&M staff oversee NFA's activities relating to registration of individuals and companies that handle customer funds or give trading advice, and make appropriate referrals to enforcement staff as necessary. Moreover, T&M staff monitor registrants' supervision systems, internal controls and sales practice compliance, and ethics programs. T&M and EA staffs perform trade practice surveillance and work closely with exchanges in their self-regulatory capacity to ensure that their rules and regulations comport with Federal regulation in various areas, including clearance of trades, trade orders and records, position limits, price limits, disciplinary actions, and floor trading practices. The staffs conduct comprehensive semiannual reviews of all domestic futures and options exchanges to ensure that they remain in compliance with the Commodity Exchange Act and its regulations.

The Division of Enforcement (DOE) investigates and prosecutes alleged violations of the Commodity Exchange Act and Commission regulations. DOE takes actions against individuals and firms registered with the Commission, those who are engaged in commodity futures and options trading on designated domestic exchanges, and those who improperly market futures and options contracts.

DOE staff base investigations on information they develop independently, as well as information referred by other Commission divisions; industry self-regulatory organizations; State, Federal, and international authorities; and members of the public. At the conclusion of an investigation, DOE staff may recommend that the Commission initiate administrative proceedings or seek injunctive and ancillary relief on behalf of the Commission in Federal court. Administrative sanctions may include orders suspending, denying, revoking, or restricting registration and exchange trading privileges and imposing civil monetary penalties, cease and desist orders, and orders of restitution. The Commission also may obtain temporary restraining orders and preliminary and permanent injunctions in Federal court to halt ongoing violations, as well as civil monetary penalties. Other relief may include appointment of a receiver, the freezing of assets, restitution, and disgorgement of unlawfully acquired benefits. The CEA also provides that the Commission may obtain certain temporary relief on an ex parte basis, including restraining orders preserving books and records, freezing assets, and appointing a receiver. When those enjoined violate court orders, DOE staff may seek to have the offenders held in contempt.

The Division of Enforcement works with the Department of Justice in the prosecution of criminal activity involving commodity-related issues. In addition, DOE staff provide expert help and technical assistance to U.S. Attorneys' Offices, other Federal and State law enforcement agencies, and international authorities. The Commission and individual States may join as co-plaintiffs in civil injunctive actions brought to enforce the Commodity Exchange Act.

The Office of International Affairs (OIA) assists the Commission in responding to global market and regulatory changes by coordinating the Commission's international activities. OIA provides information and technical support to the Commission and to its other offices and divisions on international matters; assists the Commission in developing rulemakings having foreign implications; analyzes foreign regulatory developments; develops regulatory information-sharing arrangements; shares regulatory and fitness information with foreign authorities; and coordinates technical assistance to foreign jurisdictions. OIA represents the Commission in international organizations, organizes international conferences on behalf of the Commission, and provides technical comments to other U.S. financial regulators with respect to relevant international activities.

The Office of the General Counsel (OGC) is the Commission's legal advisor. OGC represents the Commission in appellate litigation and in certain trial-level cases, including bankruptcy proceedings that involve futures industry professionals. Through its opinions program, OGC assists the Commission in performing its adjudicatory functions. As legal advisor, OGC reviews all substantive regulatory, legislative, and administrative matters presented to the Commission. OGC also advises the Commission on the application and interpretation of the Commodity Exchange Act and other administrative statutes.

HIGHLIGHTS OF FISCAL YEAR 2000

The Commission's fiscal year 2000 appropriation was $62.8 million. This was $1.6 million or a 2.6 percent increase over our fiscal year 1999 level. Actual staffing levels for fiscal year 2000 were down to 556 full-time equivalent employees (FTEs) in fiscal year 2000 from 567 FTEs in fiscal year 1999.

Approximately three-fourths of the CFTC's appropriation is to cover the salary and benefits of the Commission staff. Recruiting and retaining a professional staff, consisting primarily of attorneys and economists, continues to be one the Commission's largest management challenges. Beginning in fiscal year 2000 and continuing in this fiscal year, the Commission has moved aggressively to recruit, and more importantly retain, its highly specialized professional staff by using, when fiscally feasible, all of the flexibilities available to it within Title V.

The remaining quarter of the Commission's budget covers all other operating expenses. The two largest operating expenses are the lease of office space and the cost of maintaining an information technology infrastructure that enables the Commission to maintain an effective enforcement and market surveillance presence.

Keeping pace with the rapid information technology developments in the futures industry is perhaps the Commission's second largest management challenge. For the first six months of the year 2000, the Commission undertook an independent assessment of its information technology program. The report included a number of specific recommendations including:

—Reorganizing the Office of Information Resources Management;
—Reestablishing an information technology strategic planning body with enhanced senior management involvement;
—Increasing staff, over a two-year period, from 38 FTEs to 58 FTEs, to bring the Commission to acceptable industry standards;
—Implementing skill requirements for staff based upon the Chief Information Officer's Council Core Competencies framework;
—Changing the information technology infrastructure, including an enhanced security program; and
—Reengineering the change management process.

The Commission initiated a number of these changes with fiscal year 2000 and fiscal year 2001 resources. For example, the Commission has already reallocated an additional six FTEs for information technology positions.

In addition to the significant resources devoted to the substantial revisions to the Commodity Exchange Act, the following are some highlights from the ongoing work of the Commission's programs:

Enforcement

In the program areas, the CFTC has used its appropriations to maintain an effective enforcement and market surveillance presence in the growing futures and option markets. The largest share of our resources goes to support the Commission's enforcement program. The primary goal of the enforcement program is to police futures markets for conduct that violates the Commodity Exchange Act or Commission regulations. The Enforcement program continuously looks for new ways to enhance the Commission's ability to detect and deter wrongdoing. In fiscal year 2000, for example, the Enforcement staff took action in a variety of areas including:

Fraudulent Internet Solicitations.—Internet fraud poses a grave new threat because technology now enables malefactors to solicit business fraudulently from millions of people quickly and cheaply. To combat this threat, the Commission's enforcement program:

—Published a new Consumer Advisory; participated in Internet surveillance "surf days" in cooperation with the Securities and Exchange Commission and the Federal Trade Commission; and trained international enforcement agencies in the investigation and litigation of Internet-related fraud actions.

On May 1, 2000, the Commission announced the initial results of a coordinated enforcement initiative with the Securities and Exchange Commission and the Federal Trade Commission aimed at cleaning up Internet Web sites. As part of the initiative, the Commission filed and simultaneously settled 10 administrative enforcement actions.

Fraudulent Illegal Commodity Contracts.—Illegal futures or option contracts continue to pose a financial threat to the public. The Enforcement program actively seeks to protect the public from wrongdoers who fraudulently solicit customers for what are purported to be financed speculative purchases of precious metals and other commodities but which are in fact illegal futures or option contracts. In fiscal year 2000, the Commission brought several civil actions charging defendants with this type of misconduct. The Commission has also issued a Consumer Advisory to

address these issues. In the Consumer Advisory, the Commission warned that companies making such pitches often overstate profit potential while minimizing the risk involved, falsely claiming that they are purchasing and storing metal, and charging phony "storage" and "interest" fees.

Other enforcement initiatives focused on fraudulent trade allocations—targeting, for example, wrongdoers who purposefully failed to provide account numbers for trades—until after they knew the prices at which the trades had been confirmed—in order to favor some customers over others in the allocation of profits and losses.

Market Surveillance, Analysis, and Research.—As noted above, one of the Commission's principal responsibilities is to assure that futures markets operate competitively, free of manipulation and congestion, and serve the price discovery and risk management needs of the U.S. and world economies. The Market Surveillance, Analysis, and Research programs in the Division of Economic Analysis focus on these objectives, periodically examine the effectiveness of their programs, and seek to institute revisions that reduce the costs of compliance. The following are examples of fiscal year 2000 initiatives in these programs:

Adoption of New Procedures for New Contract Listing and Rule Reviews.—The Commission proposed a far-reaching and fundamental change to its procedures for listing new contracts offered by U.S. exchanges. The change responds to U.S. futures exchanges' concerns that their ability to list new contracts without delay is important to their continued competitiveness, particularly with foreign exchanges. Specifically, the Commission adopted procedures allowing an exchange to list new contracts one day after the exchange files a notice with a certification that the contract meets the Commission's requirements. The certification, in conjunction with fast-track procedures for approval of new contracts previously adopted by the Commission, ensures that the benefits of a new contract can be brought to the marketplace as soon as possible. Since then, the Commission further streamlined the exchange rules approval process to permit single, weekly summary filings rather than individual submissions.

Listing of a Variety of New Products. The Commission approved 29 new futures and option contracts, two of which were approved under 10-day fast track procedures, and 13 of which were approved under 45-day fast track provisions. In addition, exchanges filed 23 new contracts for listing under the Commission's certification procedures, which permit exchanges to certify their own contracts and list them prior to receiving Commission approval. Examples of new contracts include:

—U.S. Agency Notes based on Freddie Mac and Fannie Mae instruments;
—Illinois Waterway Barge Freight and St. Louis Harbor Barge Freight futures;
—Cottonseed Oil futures and futures option contracts;
—U.S. equity index contracts, including the Dow Jones Utilities Average and the Dow Jones Transportation Average, as well as the Dow Jones Composite Average;
—Dairy and Livestock products, such as the cash-settled live cattle futures and option contracts based on the value of cattle at slaughter weight;
—Regional Electricity contracts such as the MidColumbia electricity futures contract, which provides electricity market participants with risk management tools to respond to the evolving electricity cash market in the Pacific Northwest region of the U.S.

Trading and Markets.—As noted above, T&M staff develop, implement, and interpret regulations that protect customers, prevent trading and sales practice abuses, and assure the financial integrity of the futures markets and firms holding customer funds. During fiscal year 2000, the Commission published the following final rules, proposed rules, orders, and advisories as part of the Commission's effort to reduce regulatory burdens:

Block Trading Proposals.—The Commission approved a proposal by the Cantor Financial Futures Exchange, Inc. (Cantor) to establish block-trading procedures at Cantor. The block-trading program at Cantor allows qualified market participants to negotiate and arrange futures transactions of a minimum size bilaterally, away from the centralized, competitive market. Once the specific terms of the block transaction are agreed to, the counterparties report the relevant details of the transaction to the exchange for clearing and settlement. The Commission also approved a later submission from the Chicago Mercantile Exchange to establish block trading.

Electronic Signatures.—The Commission adopted new rules permitting futures commission merchants or FCMs, introducing brokers or IBs, commodity trading advisors and commodity pool operators to accept from their customers, clients or pool participants electronic signatures in those instances where Commission rules require registrants to obtain a signature on a document—such as an acknowledgement of receipt of required disclosure. The new rules include a definition of "electronic sig-

nature" patterned on the definition in the Uniform Electronic Transaction Act and a requirement to employ reasonable safeguards in accepting electronic signatures.

Average Price Calculations.—The Commission issued an advisory permitting FCMs to calculate average prices for their customers, when permitted to do so by exchange rules, if multiple prices are received on an order or series of orders. Previously, the Commission had authorized only U.S. trading clearinghouses to perform the calculations. FCMs now have greater flexibility and increased efficiency in providing average pricing.

Foreign Futures and Options.—The Commission adopted a rule permitting foreign firms acting in the capacity of FCMs and IBs to accept and execute foreign futures and option orders received directly from certain sophisticated U.S. customers without the firms being required to register with the Commission.

COMMODITY FUTURES MODERNIZATION ACT OF 2000

The Commodity Futures Modernization Act (CFMA) was signed into law on December 21, 2000, and with its enactment, the Commission was given the task of overhauling virtually the entire regulatory structure of the commodity futures and options industry. While this will bring tremendous pressures to bear on its staff and resources, the Commission is extremely pleased to have the opportunity to carry out the mandates of this flexible new oversight structure, and the agency is firmly committed to doing so in accordance with the timetables that are given within the statute.

The CFMA provides legal certainty for over-the-counter markets, lightens regulatory burdens on domestic exchanges, and lifts the ban on single-stock futures. The new Act requires action by the Commission, including 15 rulemakings and three studies. In some cases, the Commission is required to coordinate its efforts with those of other Federal regulators. The CFMA also clarified the Commission's authority with regard to prosecuting foreign exchange bucket shops and provided a new framework for the oversight of designated clearing organizations.

Additionally, the CFMA moved the Commission from a role as a front-line regulator to a more flexible oversight role. It might appear that, in this new capacity, the Commission would need fewer resources than in the past. However, just the opposite is likely to be true. Implementation of the CFMA promises to liberate market participants from prescriptive, often out-dated, regulations so that innovation in new products and new trading platforms may flourish. Market participants have already begun to respond enthusiastically to this opportunity. However, this very innovation, and the increasing diversity in products and platforms that it generates, can present the Commission with significant oversight challenges.

For example, rapid developments in technology, particularly in telecommunications and the Internet especially, have sparked great interest in electronic exchanges and trading platforms. In just the last year or so, the Commission has approved three new exchanges and granted no-action relief to two electronic trading platforms for energy products. By comparison, for more than a decade prior to that, only two new exchanges were designated and neither became an economically viable trading platform.

And it is very likely that those three new exchanges represent only the tip of the iceberg. Commission staff are currently reviewing the applications of, or have received serious inquiries from, another half dozen proposed electronic exchanges and we anticipate that some of the electronic cash markets may also give rise to additional electronic futures exchanges.

This exciting growth and innovation in the marketplace has begun, and will continue, to provide real benefits to market participants, customers, and the economy as a whole. However, because the Commission's primary responsibilities have not changed, growth and innovation will also place increasingly greater demands on our resources. Several areas in particular require significant attention and effort:

—New exchanges and alternate trading platforms, for which tailored oversight must be fashioned to fit each market along a spectrum of regulatory classifications from full oversight to basic fraud and manipulation protections;

—A new product area (single-stock futures) which potentially will lead to new contracts;

—Advancements in the practices of clearinghouses to respond properly to these new products and new trading platforms; and

—Clarification of our enforcement mission to now include prosecutions in the increasingly problematic area of foreign-exchange bucket shops.

To effectively fulfill its responsibilities in these areas, the Commission and its staff must rely heavily upon information management and telecommunications resources that are capable, efficient, and up-to-date in order to allow flexible, fast, and

appropriate responses to market conditions and events. It should be emphasized that, as a financial regulator, and particularly a regulator that is witnessing phenomenal growth in electronically based market activity, the Commission depends heavily upon its information management and telecommunications resources. Without adequate resources in this area, the Commission cannot effectively monitor markets to detect potential problems on a timely basis. Nor can the Commission reconstruct market events when disputes arise or when violations are alleged. These monitoring and investigative responsibilities require the processing of vast quantities of information and the Commission's Office of Information Resources Management represents not a support function but rather a mission-critical core competency of the Commission.

But our human resources, the dedicated people that interpret and act upon the information provided by our computer resources, are even more critically important to the performance of our mission, the protection of market participants, and the markets themselves. This mission requires staff members with the proper training and solid experience in the specifics of the markets we oversee.

BUDGET REQUEST FOR FISCAL YEAR 2002

The President's fiscal year 2002 budget request for the Commission is $70.4 million. That sum represents an increase of $2.6 million (or 3.7 percent) over fiscal year 2001 appropriations. To maintain its current level of services and operations, the Commission would require for fiscal year 2002 approximately $76.2 million. Therefore, this budget will finance an estimated 57 fewer FTEs (in staff-years) for fiscal year 2002 than is provided for in fiscal year 2001.

OVERVIEW OF FUNDING LEVELS AND OPERATIONAL EFFECTS

The proposed funding level for fiscal year 2002 will require the Commission to make some hard choices as it prepares to transform itself from a front line regulator to an oversight agency. The Commission's top priorities will continue, to every extent possible, to dedicate resources to the Enforcement and Surveillance programs and to permit ongoing critical investments in technology to increase the Commission's ability to make the most of the limited resources.

The Commission will strive to ensure that the staff reductions will not seriously impair the Commission's ability to keep pace with the rapid growth in volume and the profound changes resulting from novel transactions, new trading systems, new market practices, technological advances, market globalization, and efforts to carry out the long awaited regulatory reform efforts culminating in the passage of the Commodity Futures Modernization Act of 2000 or CFMA.

Specifically, the fiscal year 2002 President's Budget will result in a reduction of twelve staff-years in the Enforcement program—a decrease that is approximately the size of an entire investigation/litigation team. While the FTEs eliminated will be distributed through the Enforcement program in an attempt to minimize the impact, this decrease will most likely have a measurable impact on the program. For example, more and more Americans have money at risk in the futures markets either directly or indirectly through pension funds or ownership of shares in publicly held companies that participate in the markets. The growing size and sophistication of these markets present new challenges to the Enforcement program and place new demands on its resources. The Enforcement program is important both as a deterrent to wrongdoers and as a signal of integrity to inspire confidence on the part of market participants. This reduction in staff means the Enforcement program will be less well equipped to respond to these challenges in the future.

In fiscal year 2002, the Market Surveillance, Analysis, and Research program will lose nine positions. This loss means the level of surveillance, exchange oversight, contract design review, and market and product study may not be commensurate with the growth in new types of exchanges and the initiation of new products, such as single stock futures. If growth in the industry outpaces the resources available to oversee the industry, several risks are introduced, including the increased possibility of undetected price manipulations and abusive trading practices. A key goal of the Commission is to ensure that its regulatory policies reflect of industry developments so as not to impede market innovation. But because these markets and the products traded on them are increasingly complex, it will be difficult to meet this goal with fewer staff resources.

The Division of Trading and Markets will lose approximately 17 positions in fiscal year 2002. Trading and Markets plays an important leading role in developing many of the regulatory reform initiatives undertaken by the Commission and is key to the implementation of the CFMA and the many studies that it requires. In fiscal year 2002, in addition to providing guidance to the public and industry professionals con-

cerning compliance with the CEA, the program will review Commission rules to determine if they should be streamlined further in light of technological and market developments, provide guidance to foster innovative transactions and electronic trading systems, and monitor the risks to regulated industry participants by unregulated derivatives activities as well as the risks posed to registrants by their unregistered affiliates. In addition, Trading and Markets will strive to maintain U.S. leadership in setting internationally acceptable standards for the regulation of markets and trading. However, with the decreased level of resources the program will not be equipped to respond as quickly as desired to these critical challenges and their associated interested parties.

Other program areas at the Commission affected by this decrease include the Office of the General Counsel and the Office of Proceedings. In the Office of the General Counsel, a reduction of four FTEs means there may be delays in reviewing contract market designation applications, rule changes, and proposed enforcement actions; in analyzing legislation and proposed legislation affecting the Commission; in defending the Commission in appellate and other litigation; and in assisting the Commission in the performance of its adjudicatory functions. Likewise, the Office of Proceedings, which will lose five staff members, is expected to experience delays in the performance of its responsibility, which is providing an inexpensive, impartial, and expeditious forum for handling customer complaints against persons or firms registered under the CEA.

The one function that will receive a net increase in staff is information technology. The Commission recognizes that the effective use of information technology is critical to the Commission's ability to carry out its mandate. The fast growing information-intensive and increasingly complex futures industry continues to expand into new markets and embrace electronic trading, creating a virtual global market. The Commission's investment in staff and budgetary resources in information technology is a recognition that the Commission must maintain technology capabilities that enable it to provide effective oversight of an industry with platforms and products that are constantly evolving based on technological innovations. It is critical that the Commission's information technology capacity stay on par with the industry in order to provide the right information at the right time and in the right format to our investigators, analysts, and attorneys. The increase of four positions for information technology will be more than offset by a reduction of seven positions in finance, human resources, and administrative services. The loss of seven positions among these administrative support functions means less responsive support to our program areas in critical areas such as recruiting and retaining employees and planning for the financial resources necessary to carry-out our mission. .

Thank you for the opportunity to present our mission, responsibilities, and resource needs as we take on the challenge of rethinking our former methods of regulating the safest, soundest futures and options markets in the world. The Commission looks forward to working with Congress and other Federal financial regulators to ensure that we foster innovation and competition in the marketplace to enable the markets to grow and maintain their global leadership role. I would be happy to provide answers to any questions you may have.

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