

for easier access to inexpensive labor. California growers, the biggest fruit and vegetable producers in the nation, persuaded the government to admit Mexican workers during World War I. Later, from 1942 to 1964, 4.6 million Mexican farm workers were admitted into the country under the bracero guest-worker program.

Investment in technology generally happened when the immigrant spigot was shut. After the bracero program ended and some farm wages began to rise, scientists at the University of California at Davis began work on both a machine to harvest tomatoes mechanically and a tomato better suited to mechanical harvesting.

By 1970, the number of tomato-harvest jobs had been cut by two-thirds. But the tomato harvester's success proved to be a kiss of death for mechanical harvesting. In 1979, the farm worker advocacy group California Rural Legal Assistance, with support from the United Farm Workers union of Cesar Chavez, sued U.C. Davis, charging that it was using public money for research that displaced workers and helped only big growers.

The lawsuit was eventually settled. But even before that, in 1980, President Jimmy Carter's agriculture secretary, Bob Bergland, declared that the government would no longer finance research projects intended to replace "an adequate and willing work force with machines." Today, the Agricultural Research Service employs just one agricultural engineer: Donald Peterson, a longtime researcher at the Appalachian Fruit Research Station in Kearneysville, W. Va.

"At one time I was told to keep a low profile and not to publicize what I was doing," Mr. Peterson said.

As the government pulled out, growers lost interest as well, refocusing on Congress instead. In 1986, farmers were instrumental in winning passage of the Immigration Reform and Control Act, which legalized nearly three million illegal immigrants—more than a third under a special program for agriculture.

Farmers' investments in labor-saving technology all but froze, and gains in labor productivity slowed. From 1986 to 1999, farm labor inputs fell 2.4 percent, after a drop of 35 percent in the preceding 14 years. Meanwhile, farmers' capital investments fell 46.7 percent from their peak in 1980 through 1999.

About 45 vegetable and fruit crops planted over 3.6 million acres of land, and worth about \$13 billion at the farm gate, are still harvested by hand, by a labor force made up mostly of illegal immigrants. On average, farm workers earned \$6.18 an hour, less than half the average wage for private, nonfarm workers, in 1998, the year of the Labor Department's most recent survey of agricultural workers.

Florida's orange groves have reflected the broader trends. In the 1980's, a 20-year research effort into mechanical harvesting ground to a halt. With frosts upstate taking 200,000 acres out of production, orange prices soared and the demand for labor fell.

But as is often the case in agriculture, farmers overreacted to the market's strength, flocking to plant groves among the vegetable patches, pastures and swamps in the southwestern part of the state. By the early 1990's, the market looked poised for a glut. With the prospect of bumper crops in Brazil, where harvesting costs are about one-third as high as in Florida, a crisis loomed—driving orange growers back into technology's embrace.

In 1995, the growers decided to plow \$1 million to \$1.5 million a year into research in mechanical harvesting. By the 1999–2000 harvest, the growers had achieved their technological breakthrough, with four different harvesting machines working commercially.

Last year, machines harvested 17,000 acres of the state's 600,000 acres planted in juice oranges, said Fritz M. Roka, an agricultural economist at the University of Florida.

"Mechanical harvesting is the biggest change in the Florida citrus industry since we switched to aluminum ladders," said Will Elliott, general manager of Coe-Collier Citrus Harvesting, one of seven commercial contractors that are shaking trunks and brushing canopies around the state.

Mr. Brown, the retired Department of Citrus official, estimates that in five years, machines will harvest 100,000 acres of oranges here. But there are obstacles. Machines work best on the big, regularly spaced, groomed young groves in the southwest, and some do not work at all on the smaller, older, more irregular acreage in central Florida. Machines are hard to use on Valencia orange trees, because shaking them risks prematurely dislodging much of the following year's harvest.

Still, the economics are in mechanization's favor. A tariff of 29 cents per pound on imports of frozen concentrated orange juice lets Florida growers resist the Brazilian onslaught—but not by much. According to Ronald Muraro and Thomas Spreen, researchers at the University of Florida, Brazil could deliver a pound of frozen concentrate in the United States for under 75 cents, versus 99 cents for a Florida grower.

Mechanical harvesting can help cut the gap. Mr. Loukonen of Barron Collier estimates that machine harvesting shaves costs by 8 to 10 cents a pound of frozen concentrate.

The spread of mechanization could redraw the profile of Immokalee, which today is a rather typical American farming town. Seventy-one percent of the population of 20,000 is Latino—with much of the balance coming from Haiti—and 46 percent of the residents are foreign born, according to the 2000 census. About 40 percent of the residents live under the poverty line, and the median family income is below \$23,000—less than half that of the United States as a whole.

Philip Martin, an economist at U.C. Davis, points to the poverty as an argument in favor of labor-saving technology. He estimates that about 10 percent of immigrant farm workers leave the fields every year to seek better jobs. Rather than push more farmhands out of work, he contends, introducing machines will simply reduce the demand for new workers to replenish the labor pool.

And there are some beneficiaries among workers: those lucky enough to operate the new gear. Perched in the air-conditioned booth of Mr. Meador's canopy shaker, a jumpy ranchera tune crackling from the radio, Felix Real, a former picker, said he can make up to \$120 a day driving the contraption down the rows, about twice as much as he used to make.

Yet many Immokalee workers are nervous. "They are using the machines on the good groves and leaving us with the scraggly ones," said Venancio Torres, an immigrant from Mexico's coastal state of Veracruz who has been picking oranges in Florida for three years.

Mr. Loukonen, the Barron Collier manager, said the farm workers were right to be anxious. "If there's no demand for labor, supply will end," he said. "They will have to find another place to work, or stay in their country."

Mr. CRAIG. Mr. President, our Federal Government has got to do better, faster, in improving our border security and meeting the growing problem of illegal immigration.

That is why Congress has been beefing up the border patrol and buying

high-tech verification systems for the Department of Homeland Security.

That is why, whether you agree on the specific methods or not, the House of Representatives attached national drivers' license standards and asylum changes, in the so-called REAL ID provisions, to the Iraq supplemental appropriations bill.

That is why I have supported Senator BYRD on an amendment to this bill to increase border security, hire more investigators and enforcement agents, and boost resources for detention.

That is why I am cosponsoring a bill to help States deal with undocumented criminal aliens.

And that is why I have worked to bring the AgJOBS—bill the Agricultural Job Opportunities, Benefits, and Security Act—to the Senate floor.

I truly wish we did not have to have this debate on this bill on the Senate floor.

However, the House of Representatives has forced this opportunity upon us. By putting border, identification, and asylum provisions in the supplemental, the House has turned this bill into an immigration bill.

I am committed to making this debate as brief as possible, and as full and fair as necessary. As far as I am concerned, a thorough debate on AgJOBS does not need to take more than a couple hours, if we can get agreement from Senators who oppose the amendment.

The Senate has enough time for this amendment. If anyone is going to unduly delay this bill, it is not this Senator. As a member of the Appropriations Committee and on this floor, I fully support prompt appropriations for our men and women in uniform and for operations necessary in the war on terrorism.

AgJOBS is only an installment toward an overall solution to our nation's growing problem of illegal immigration. However, it is a significant installment, a logical installment, and one that is fully matured and ready to go forward.

I have worked with my colleagues and numerous communities of interest on AgJOBS issues for several years. The amendment I bring forward this week has been, in all its major essentials, well-known and much discussed in the Senate and the House for more than a year and a half.

This bipartisan effort builds upon years of discussion and suggestions among growers, farm worker advocates, Latino and immigration issue advocates, Members of both parties in both Houses of Congress, and others.

We have now built the largest bipartisan coalition ever for a single immigration bill. This letter was just delivered this week to Senate offices. There are about 100 more signatures on this letter than a similar letter delivered a year ago. Support for AgJOBS is growing.

That support reflects the fact that, in agriculture as in other sectors, the current immigration and labor market system is profoundly broken.