

(iii) *Limitations.* Administer for 5 consecutive days; withdraw 3 days before slaughter or release as stocker fish.

[40 FR 13959, Mar. 27, 1975, as amended at 42 FR 13550, Mar. 11, 1977; 49 FR 33442, Aug. 23, 1984; 49 FR 46371, Nov. 26, 1984; 51 FR 7400, Mar. 3, 1986; 51 FR 18884, May 23, 1986; 52 FR 2686, Jan. 26, 1987; 54 FR 1686, Jan. 17, 1989]

§ 558.579 Sulfaethoxyypyridazine.

(a) *Approvals.* Type A medicated articles: 5.5 percent for swine, and 5.5 and 11 percent for cattle to 010042 in § 510.600(c) of this chapter.

(b) *Related tolerances.* See § 556.650 of this chapter.

(c) *Conditions of use.* It is used in animal feed as follows:

(1) *Swine*—(i) *Amount.* 25 milligrams per pound body weight per day.

(ii) *Indications for use.* For treatment of bacterial scours, pneumonia, enteritis, bronchitis, septicemia accompanying *Salmonella choleraesuis* infection.

(iii) *Limitations.* Administer 1,000 grams per ton (0.11 percent) for not less than 4 days nor more than 10 days; do not treat within 10 days of slaughter; as sole source of sulfonamide; for use by or on the order of a licensed veterinarian.

(2) *Cattle*—(i) *Amount.* 25 milligrams per pound body weight per day.

(ii) *Indications for use.* For treatment of respiratory infections (pneumonia, shipping fever), foot rot, calf scours; as adjunctive therapy in septicemia accompanying mastitis and metritis.

(iii) *Limitations.* Administer as a top dressing or in mixed feed for 4 days; do not treat within 16 days of slaughter; as sole source of sulfonamide; milk that has been taken from animals during treatment and for 72 hours (6 milkings) after the latest treatment must not be used for food; for use by or on the order of a licensed veterinarian.

[41 FR 11005, Mar. 15, 1976, as amended at 51 FR 7400, Mar. 3, 1986; 52 FR 2686, Jan. 26, 1987]

§ 558.582 Sulfamerazine.

(a) *Approvals.* Type A medicated articles: 99 percent to 000004 in § 510.600(c) of this chapter.

(b) *Related tolerances.* See § 556.660 of this chapter.

(c) *Conditions of use.* It is used in fish feed for rainbow trout, brook trout, and brown trout as follows:

(1) *Amount.* 10 grams of sulfamerazine per 100 pounds of fish per day.

(2) *Indications for use.* Control of furunculosis.

(3) *Limitations.* Treat for not more than 14 days; do not treat within 3 weeks of marketing or stocking in stream open to fishing.

[41 FR 11005, Mar. 15, 1976, as amended at 51 FR 7400, Mar. 3, 1986; 61 FR 18082, Apr. 24, 1996]

§ 558.586 Sulfaquinoxaline.

(a) *Approvals.* Type A medicated articles: 40 percent to 050749 in § 510.600(c) of this chapter.

(b)–(c) [Reserved]

(d) *NAS/NRC status.* The conditions of use specified in this section have been reviewed by NAS/NRC and are found effective. Applications for these uses need not include effectiveness data as specified by § 514.111 of this chapter, but may require bioequivalency information. Applications must be accompanied by a written commitment to undertake the human safety studies required by FDA.

(e) *Special considerations.* (1) For control of outbreaks of disease, medication should be initiated as soon as the diagnosis is determined. Medicated chickens, turkeys, and rabbits must actually consume enough medicated feed which provides a recommended dose of approximately 3.5 to 60 milligrams per pound per day in chickens, 2.5 to 100 milligrams per pound per day in turkeys, and 2.8 to 68 milligrams per pound per day in rabbits depending upon age and class of animal, ambient temperature, and other factors. Consult a veterinarian or poultry pathologist for diagnosis.

(2) [Reserved]

(f) *Conditions of use.* It is used as follows:

(1) *Chickens*—(i) *Amount.* 0.015 percent.

(a) *Indications for use.* As an aid in preventing outbreaks of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. maxima*, and *E. brunetti* under average conditions of exposure.

(b) *Limitations.* Feed continuously from the time birds are placed on litter and continue past the age when coccidiosis is ordinarily a hazard. If death

losses exceed 0.5 percent in a 2-day period, obtain a laboratory diagnosis. If coccidiosis is the cause, use the sulfaquinoxaline levels recommended for control of outbreaks, returning to the original dosage schedule after the outbreak has subsided. Losses may result from intercurrent disease, other conditions affecting drug intake, or variant strains of coccidia species which can contribute to the virulence of coccidiosis under field conditions. Do not treat chickens within 10 days of slaughter. Do not medicate chickens producing eggs for human consumption.

(ii) *Amount.* 0.0175 percent.

(a) *Indications for use.* As an aid in preventing outbreaks of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. maxima*, and *E. brunetti* where excessive exposure to coccidia is increased due to overcrowding or other management factors.

(b) *Limitations.* Feed continuously from the time birds are placed on litter and continue past the age when coccidiosis is ordinarily a hazard. If death losses exceed 0.5 percent in a 2-day period, obtain a laboratory diagnosis. If coccidiosis is the cause, use the sulfaquinoxaline levels recommended for control of outbreaks, returning to the original dosage schedule after the outbreak has subsided. Losses may result from intercurrent disease, other conditions affecting drug intake, or variant strains of coccidia species which can contribute to the virulence of coccidiosis under field conditions. Do not treat chickens within 10 days of slaughter. Do not medicate chickens producing eggs for human consumption.

(iii) *Amount.* 0.1 to 0.05 percent.

(a) *Indications for use.* As an aid in controlling outbreaks of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. maxima*, and *E. brunetti*.

(b) *Limitations.* Feed at 0.1 percent level for first 48 to 72 hours. Skip 3 days; 0.05 percent for 2 days, skip 3 days; 0.05 percent for 2 days. If bloody droppings recur, give 0.05 percent for another 2 days. Do not treat chickens within 10 days of slaughter. Do not medicate chickens producing eggs for human consumption.

(2) *Turkeys*—(i) *Amount.* 0.0175 percent.

(a) *Indications for use.* As an aid in preventing outbreaks of coccidiosis caused by *Eimeria meleagridis* and *E. adenoides*.

(b) *Limitations.* Feed 0.0175 percent continuously during time birds are closely confined. May be continued for week to 10 days after flock is transferred to range to reduce danger of an outbreak following moving of the flock. Do not treat turkeys within 10 days of slaughter. Do not medicate turkeys producing eggs for human consumption.

(ii) *Amount.* 0.05 percent.

(a) *Indications for use.* As an aid in controlling outbreaks of coccidiosis caused by *Eimeria meleagridis*, and *E. adenoides*.

(b) *Limitations.* Feed 0.05 percent for 2 days. Follow with 3 days on regular feed and 2 more days on 0.05 percent sulfaquinoxaline feed. Again follow with 3 days on regular feed and 2 more days on 0.05 percent sulfaquinoxaline feed. Continue this schedule if necessary till all signs of the outbreaks have subsided. Do not treat turkeys within 10 days of slaughter. Do not medicate turkeys producing eggs for human consumption.

(3) *Chickens and turkeys*—(i) *Amount.* 0.05 or 0.1 percent.

(a) *Indications for use.* As an aid in the control of acute fowl cholera caused by *Pasteurella multocida* susceptible to sulfaquinoxaline and fowl typhoid caused by *Salmonella gallinarum* susceptible to sulfaquinoxaline.

(b) *Limitations.* Feed 0.1 percent for 48 to 72 hours. Mortality should be brought under control. After medication, move birds to clean ground or to a clean house. If disease recurs, use 0.05 percent in feed again for 2 days. Do not treat chickens or turkeys within 10 days of slaughter for food. Do not medicate chickens or turkeys producing eggs for human consumption.

(ii) [Reserved]

(4) *Rabbits*—(i) *Amount.* 0.025 percent.

(a) *Indications for use.* As an aid in preventing coccidiosis caused by *Eimeria stiedae*.

(b) *Limitations.* Treatment to be started after weaning. Feed continuously for 30 days or feed medicated feed for 2

days out of every week until marketing. Do not treat within 10 days of slaughter.

(ii) *Amount.* 0.1 percent.

(a) *Indications for use.* As an aid in controlling outbreaks of coccidiosis caused by *Eimeria stiedae*.

(b) *Limitations.* Feed for 2 weeks. Do not treat within 10 days of slaughter.

[48 FR 3965, Jan. 28, 1983, as amended at 51 FR 7400, Mar. 3, 1986; 52 FR 2686, Jan. 26, 1987; 55 FR 29843, July 23, 1990; 59 FR 33197, June 28, 1994]

§ 558.600 Tiamulin.

(a) *Approvals.* Type A article containing 5, 10, or 113.4 grams of tiamulin (as tiamulin hydrogen fumarate) per pound to 000010 in § 510.600(c) of this chapter.

(b) *Related tolerances.* See § 556.738 of this chapter.

(c) *Conditions of use in swine*—(1) *Amount.* 35 grams of tiamulin per ton.

(i) *Indications for use.* For control of swine dysentery associated with *Serpulina (Treponema) hyodysenteriae* susceptible to tiamulin.

(ii) *Limitations.* Feed continuously as sole ration on premises with a history of swine dysentery but where signs of disease have not yet occurred or following approved treatment of disease. Withdraw 2 days before slaughter. Not for use in swine over 250 pounds body weight. Use as only source of tiamulin. Swine being treated with tiamulin should not have access to feeds containing polyether ionophores (e.g., lasalocid, monensin, narasin, or salinomycin) as adverse reactions may occur.

(2) *Amount.* 10 grams of tiamulin per ton.

(i) *Indications for use.* For increased rate of weight gain and improved feed efficiency.

(ii) *Limitations.* Feed continuously as the sole ration. Not for use in swine weighing over 250 pounds. Use as sole source of tiamulin. Swine being treated with tiamulin should not have access to feeds containing polyether ionophores (e.g., lasalocid, monensin, narasin, or salinomycin) as adverse reactions may occur.

(3) *Amount.* 200 grams of tiamulin per ton.

(i) *Indications for use.* Treatment of swine dysentery associated with

Serpulina (Treponema) hyodysenteriae susceptible to tiamulin.

(ii) *Limitations.* Feed continuously as the sole feed for 14 consecutive days. Withdraw feed 7 days before slaughter. Not for use in swine over 113.40 kilograms (250 pounds) body weight. Use as the only source of tiamulin. Swine being treated with tiamulin should not have access to feeds containing polyether ionophores (e.g., monensin, lasalocid, narasin, semduramicin, or salinomycin) as adverse reactions may occur.

(4) *Amount per ton.* 35 grams of tiamulin (as tiamulin hydrogen fumarate), plus the equivalent of approximately 400 grams of chlortetracycline hydrochloride varying with body weight and feed consumption to provide 10 milligrams of chlortetracycline per pound of body weight daily.

(i) *Indications for use.* Treatment of swine bacterial enteritis caused by *Escherichia coli* and *Salmonella choleraesuis* and bacterial pneumonia caused by *Pasteurella multocida* susceptible to chlortetracycline, and control of swine dysentery associated with *Serpulina (Treponema) hyodysenteriae* susceptible to tiamulin.

(ii) *Limitations.* Feed continuously as sole ration for 14 days. Not for use in swine weighing over 250 pounds. Use as only source of chlortetracycline and tiamulin. Swine being treated with tiamulin should not have access to feeds containing polyether ionophores (e.g., monensin, salinomycin, narasin, semduramicin, and lasalocid) as adverse reactions may occur. If signs of toxicity occur, discontinue use. Withdraw 2 days before slaughter. As chlortetracycline calcium complex, Type A medicated articles containing the equivalent of 50 to 100 grams per pound of chlortetracycline hydrochloride provided by 000004 and 046573 in § 510.600(c) of this chapter.

[52 FR 26956, July 17, 1987, as amended at 53 FR 39257, Oct. 6, 1988; 59 FR 41975, Aug. 16, 1994; 62 FR 12086, Mar. 14, 1997; 62 FR 35077, June 30, 1997]

§ 558.615 Thiabendazole.

(a) *Approvals.* Dry Type A medicated articles: 22, 44.1, 66.1, and 88.2 percent to 050604 in § 510.600(c) of this chapter. The 66.1 percent Type A is solely for