

Technical Bulletin

Information from Phibro Technical Services

Summary of Approved Combination Uses for Phibro Medicated Feed Additives in Cattle Rations

Rationale

- Phibro manufactures and markets a wide range of medicated feed additives that help improve the health and productivity of cattle.
- Several products are approved by the U.S. Food and Drug Administration for concurrent feeding with other agents in medicated rations (cross clearances).
- A summary of current combination-use approvals is presented in this bulletin, with the information categorized by drug combination, cattle production class, and intended application (health and performance claims).

Aureomycin® and Bovatec®

Table 1. DRUG COMBINATION: Aureomycin and Bovatec				
ANIMAL CLASS: Confinement for slaughter				
APPLICATION: Control of respiratory disease or anaplasmosis and improved performance.				
Drug	Aureomycin® brand of chlortetracycline (CTC) ⁴			
Use Level	25 - 100 g/ton	25 - 100 g/ton ^{1,2}	25 - 42.2 g/ton	25 - 42.2 g/ton ^{2,3}
Indications	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella spp.</i> susceptible to CTC	Control of active infection of anaplasmosis caused by <i>Anaplasma marginale</i> susceptible to CTC	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella spp.</i> susceptible to CTC	Control of active infection of anaplasmosis caused by <i>Anaplasma marginale</i> susceptible to CTC
Drug	Bovatec® brand of lasalocid ⁴			
Use Level	10 - 30 g/ton	10 - 30 g/ton	25 - 30 g/ton	25 - 30 g/ton
Indications	Improved feed efficiency	Improved feed efficiency	Increased rate of weight gain and improved feed efficiency	Increased rate of weight gain and improved feed efficiency
Do not feed to calves to be processed for veal.				
Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.				
¹ Feed continuously in complete feed at a rate of 350 mg CTC per head per day and not less than 100 mg nor more than 360 mg lasalocid sodium activity per head per day.				
² Feed to cattle weighing under 700 lb.				
³ Feed continuously in complete feed at a rate of 350 mg CTC and not less than 250 mg nor more than 360 mg lasalocid per head per day.				
⁴ Expressed on a 90% dry matter basis.				

Aureomycin® and Bovatec®

Table 2. DRUG COMBINATION: Aureomycin and Bovatec

ANIMAL CLASS: Beef cattle (or all cattle up to 800 lb)*

APPLICATION: Treatment or control of respiratory disease, or control of anaplasmosis and control of coccidiosis.

Drug Aureomycin® brand of chlortetracycline (CTC) ⁴			
Use Level	25 - 2,800 g/ton ¹	25 - 2,800 g/ton ²	500 - 4,000 g/ton ^{3*}
Indications	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella spp.</i> susceptible to CTC	Control of active infection of anaplasmosis caused by <i>Anaplasma marginale</i> susceptible to CTC	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i> susceptible to CTC

Drug Bovatec® brand of lasalocid ⁴			
Use Level	30 - 181.8 g/ton	30 - 181.8 g/ton	30 - 181.8 g/ton
Indications	Control of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>	Control of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>	Control of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>

Do not feed to calves to be processed for veal.

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.

¹ Hand feed continuously at a rate of 350 mg CTC per head per day and 1 mg lasalocid per 2.2 lb bodyweight per day with a maximum 360 mg lasalocid per head per day in cattle weighing up to 800 lb.

² Hand feed continuously at a rate of 350 mg CTC per head per day and 1 mg lasalocid per 2.2 lb bodyweight per day with a maximum 360 mg lasalocid per head per day in cattle weighing up to 700 lb.

³ Feed continuously for not more than 5 days to provide 10 mg CTC per pound bodyweight per day and 1 mg lasalocid per 2.2 lb bodyweight per day with a maximum 360 mg lasalocid per head per day in cattle weighing up to 800 lb.

⁴ Expressed on a 90% dry matter basis.

* Any cattle up to 800 lb, not just beef cattle.

Table 3. DRUG COMBINATION: Aureomycin and Bovatec

ANIMAL CLASS: Confinement for slaughter

APPLICATION: Treatment of bovine respiratory disease and performance enhancement.

Drug Aureomycin® brand of chlortetracycline (CTC) ³		
Use Level	500 - 2,000 g/ton ¹	500 - 1,200 g/ton ²
Indications	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i> susceptible to CTC	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i>

Drug Bovatec® brand of lasalocid ³		
Use Level	10 - 30 g/ton	25 - 30 g/ton
Indications	Improved feed efficiency	Increased rate of weight gain and improved feed efficiency

Do not feed to calves to be processed for veal.

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.

¹ Feed continuously in complete feed for not more than 5 days to provide 10 mg CTC per pound bodyweight per day and not less than 100 mg nor more than 360 mg of lasalocid sodium activity per head per day.

² Feed continuously in complete feed for not more than 5 days to provide 10 mg CTC per pound bodyweight and not less than 250 mg nor more than 360 mg of lasalocid per head per day.

³ Expressed on a 90% dry matter basis.

Table 4. DRUG COMBINATION: Aureomycin and Bovatec
ANIMAL CLASS: Pasture cattle (slaughter, stocker, feeder, and beef replacement heifers)
APPLICATION: Control or treatment of disease and performance enhancement.

Drug Aureomycin® brand of chlortetracycline (CTC) ⁵				
Use Level	25 - 700 g/ton ¹	25 - 700 g/ton ²	25 - 1,100 g/ton ³	500 - 4,000 g/ton ^{4,5}
Indications	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella</i> spp. susceptible to CTC	Control of active infection of anaplasmosis caused by <i>Anaplasma marginale</i> susceptible to CTC	Control of active infection of anaplasmosis caused by <i>Anaplasma marginale</i> susceptible to CTC	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i> susceptible to CTC
Drug Bovatec® brand of lasalocid ⁶				
Use Level	30 - 600 g/ton	30 - 600 g/ton	30 - 600 g/ton	30 - 600 g/ton
Indications	Increased rate of weight gain	Increased rate of weight gain	Increased rate of weight gain	Increased rate of weight gain

Do not feed to calves to be processed for veal.

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.

¹ Hand feed continuously at a rate of 350 mg CTC per head per day and not less than 60 mg lasalocid nor more than 300 mg lasalocid per head daily in at least 1 lb of feed. Intakes of lasalocid in excess of 200 mg/head/day have not been shown to be more effective than 200 mg/head/day.

² Hand feed continuously at a rate of 350 mg CTC per head per day in cattle weighing less than 700 lb and not less than 60 mg lasalocid nor more than 300 mg lasalocid per head per day in at least 1 lb of feed. Intakes of lasalocid in excess of 200 mg/head/day have not been shown to be more effective than 200 mg/head/day.

³ Hand feed continuously at a rate of 0.5 mg CTC per pound bodyweight per day in cattle weighing over 700 lb and not less than 60 mg lasalocid nor more than 300 mg lasalocid per head per day in at least 1 lb of feed. Intakes of lasalocid in excess of 200 mg/head/day have not been shown to be more effective than 200 mg/head/day.

⁴ Hand feed continuously for not more than 5 days to provide 10 mg CTC per pound bodyweight per day and not less than 60 mg lasalocid nor more than 300 mg lasalocid per head per day in at least 1 lb of feed. Intakes of lasalocid in excess of 200 mg/head/day have not been shown to be more effective than 200 mg/head/day.

⁵ Also approved for use in dairy replacement heifers.

⁶ Expressed on a 90% dry matter basis.

Aureomycin® and Deccox®

Table 5. DRUG COMBINATION: Aureomycin and Deccox
ANIMAL CLASS: Calves, beef and non-lactating dairy cattle
APPLICATION: Treatment of bacterial enteritis and pneumonia, and prevention of coccidiosis.

Drug Aureomycin® brand of chlortetracycline (CTC) ²		
Use Level	500 - 4,000 g/ton ¹	4,000 - 20,000 g/ton ¹
Indications	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i>	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i>
Drug Deccox® brand of decoquinate ²		
Use Level	12.9 - 90.8 g/ton ³	90.9 - 535.7 g/ton ³
Indications	For prevention of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>	For prevention of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>

Do not feed to calves to be processed for veal.

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.

¹ Feed Type C medicated feeds as a top dress or mix into daily ration to provide 22.7 mg decoquinate and 1 g chlortetracycline per 100 lb bodyweight per day for not more than 5 days.

² Expressed on a 90% dry matter basis.

³ Feed at least 28 days during period of exposure to coccidiosis.

Aureomycin® and Cattlyst®

Table 6. DRUG COMBINATION: Aureomycin and Cattlyst

ANIMAL CLASS: Confinement for slaughter

APPLICATION: Treatment of bacterial enteritis and pneumonia, control of bacterial pneumonia, and improved performance.

Aureomycin® brand of chlortetracycline (CTC) ⁵				
Drug				
Use Level	10 mg/lb BW ¹	350 mg/head/day	10 mg/lb BW ³	350 mg/head/day
Indications	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i> susceptible to CTC	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella</i> spp. susceptible to CTC	Treatment of bacterial enteritis caused by <i>E. coli</i> and bacterial pneumonia caused by <i>Pasteurella multocida</i> susceptible to CTC	Control of bacterial pneumonia associated with shipping fever complex caused by <i>Pasteurella</i> spp. susceptible to CTC
Cattlyst® brand of laidlomycin propionate potassium ⁵				
Drug				
Use Level	5 g/ton ¹	5 g/ton ²	5 - 10 g/ton ³	5 - 10 g/ton ⁴
Indications	For improved feed efficiency and increased rate of gain	For improved feed efficiency and increased rate of gain	For improved feed efficiency	For improved feed efficiency

Do not feed to calves to be processed for veal.

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Aureomycin) to use by or on the order of a licensed veterinarian.

¹ Feed continuously at a rate of 10 mg chlortetracycline per lb body weight per day and 30 - 75 mg laidlomycin propionate per head per day for not more than 5 days.

² Feed continuously at a rate of 30 - 75 mg laidlomycin propionate per head per day.

³ Feed continuously at a rate of 10 mg chlortetracycline per lb body weight per day and 30 - 150 mg laidlomycin propionate per head per day for not more than 5 days.

⁴ Feed continuously at a rate of 30 - 150 mg laidlomycin propionate per head per day.

⁵ Expressed on a 90% dry matter basis.

Technical Bulletin

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Deccox®

Table 7. DRUG COMBINATION: Deccox and Rumensin
ANIMAL CLASS: Confinement for slaughter
APPLICATION: Prevention of coccidiosis and improved feed efficiency.

Drug	Deccox® brand of decoquinate ¹
Use Level	12.9 - 90.8 g/ton ²
Indications	For the prevention of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Rumensin® brand of monensin ¹
Use Level	5 - 30 g/ton
Indications	Improved feed efficiency

¹ Expressed on a 90% dry matter basis.

² Feed at least 28 days during period of exposure to coccidiosis.

Table 8. DRUG COMBINATION: Deccox, Rumensin, and Tylan

ANIMAL CLASS: Confinement for slaughter
APPLICATION: Prevention of coccidiosis, improved feed efficiency, and reduction in incidence of liver abscesses.

Drug	Deccox® brand of decoquinate ¹
Use Level	13.6 - 27.2 g/ton ²
Indications	For the prevention of coccidiosis caused by <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Rumensin® brand of monensin ¹
Use Level	5 - 30 g/ton
Indications	For improved feed efficiency in cattle being fed in confinement for slaughter
Drug	Tylan® brand of tylosin phosphate ¹
Use Level	8 - 10 g/ton
Indications	Reduction in incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i> in growing-finishing cattle fed in confinement for slaughter

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian.

¹ Expressed on a 90% dry matter basis.

² Feed at least 28 days during period of exposure to coccidiosis.

MGA® and Bovatec®

Table 9. DRUG COMBINATION: MGA, Bovatec and Tylan		
ANIMAL CLASS: Heifers in confinement for slaughter		
APPLICATION: Reduced liver abscesses, estrus suppression, and improved performance.		
Drug Bovatec® brand of lasalocid		
Use Level	10 - 30 g/ton ¹	100 - 1440 g/ton ¹
Indications	Increased rate of weight gain and improved feed efficiency	Increased rate of weight gain and improved feed efficiency
Drug MGA® brand of melengestrol acetate		
Use Level	0.25 - 0.50 mg/hd/day ²	0.25 - 2.0 g/ton ²
Indications	Suppression of estrus (heat)	Suppression of estrus (heat)
Drug Tylan® brand of tylosin phosphate		
Use Level	8 - 10 g/ton ³	8 - 10 g/ton ³
Indications	Reduced incidence of liver abscesses	Reduced incidence of liver abscesses
Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian.		
¹ Feed continuously in complete feed (Type C) to provide not less than 100 mg nor more than 360 mg lasalocid per head per day.		
² Feed at the rate of up to 90 mg per head per day to provide 0.25 to 0.50 mg melengestrol acetate per head per day.		
³ Feed continuously to provide 90 mg tylosin per head per day.		

Table 10. DRUG COMBINATION: Bovatec and MGA		
ANIMAL CLASS: Heifers in confinement for slaughter		
APPLICATION: Estrus suppression and performance enhancement.		
Drug Bovatec® brand of lasalocid		
Use Level	10 - 30 g/ton ¹	100 - 1,440 g/ton ¹
Indications	Increased rate of weight gain and improved feed efficiency	Increased rate of weight gain and improved feed efficiency
Drug MGA® brand of melengestrol acetate		
Use Level	0.25 - 0.50 mg/hd/day ²	0.25 - 2.0 g/ton ²
Indications	Suppression of estrus (heat)	Suppression of estrus (heat)
¹ Feed continuously in complete feed (Type C) to provide not less than 100 mg nor more than 360 mg lasalocid per head per day.		
² Feed at the rate of 0.5 to 2.0 lb per head per day to provide 0.25 to 0.50 mg melengestrol acetate per head per day.		

Technical Bulletin

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MGA®

Table 11. DRUG COMBINATION: MGA and Rumensin

ANIMAL CLASS: Heifers in confinement for slaughter

APPLICATION: Prevention and control of coccidiosis, suppression of estrus, and performance enhancement.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 2.0 g/ton ¹
Indications	Increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat)
Drug	Rumensin® brand of monensin ²
Use Level	10 - 40 g/ton
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.

² Expressed on a 90% dry matter basis.

Table 12. DRUG COMBINATION: MGA, Rumensin, and Tylan

ANIMAL CLASS: Heifers in confinement for slaughter

APPLICATION: Prevention and control of coccidiosis, reduction of liver abscesses, suppression of estrus, and performance enhancement.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 2.0 g/ton ¹
Indications	Increased rate of weight gain and suppression of estrus (heat)
Drug	Rumensin® brand of monensin ²
Use Level	10 - 40 g/ton
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Tylan® brand of tylosin phosphate ²
Use Level	8 - 10 g/ton ³
Indications	Reduction of incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i>

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian.

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.

² Expressed on a 90% dry matter basis.

³ Feed continuously

Table 13. DRUG COMBINATION: MGA and Exporior
ANIMAL CLASS: Heifers in confinement for slaughter for the last 14 to 91 days on feed.
APPLICATION: Increased weight gain and feed efficiency, suppression of estrus, and reduction of ammonia gas emissions.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 0.50 mg/head/day ¹
Indications	Increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat)
Drug	Exporior™ brand of lubabegron fumarate
Use Level	13 - 90 mg/head/day ²
Indications	Reduction of ammonia gas emissions

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.
² Complete feed: 1.25 – 4.54 g/ton.

Table 14. DRUG COMBINATION: MGA, Rumensin, and Exporior
ANIMAL CLASS: Heifers in confinement for slaughter for the last 14 to 91 days on feed.
APPLICATION: Prevention and control of coccidiosis, increased weight gain and feed efficiency, suppression of estrus and, reduction of ammonia gas emissions.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 0.50 mg/head/day ¹
Indications	Increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat)
Drug	Rumensin® brand of monensin ³
Use Level	10 - 40 g/ton to provide 0.14 - 0.42 mg/lb BW/day ²
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Exporior™ brand of lubabegron fumarate
Use Level	13 - 90 mg/head/day ⁴
Indications	Reduction of ammonia gas emissions

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.
² Up to 480 mg/head/day.
³ Expressed on a 90% dry matter basis.
⁴ Complete feed: 1.25 – 4.54 g/ton.

MGA®

Table 15. DRUG COMBINATION: MGA, Rumensin, Tylan, and Exporior

ANIMAL CLASS: Heifers in confinement for slaughter for the last 14 to 91 days on feed.

APPLICATION: Prevention and control of coccidiosis, reduction of incidence of liver abscesses, increased weight gain and feed efficiency, suppression of estrus, and reduction of ammonia gas emissions.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 0.50 mg/head/day ¹
Indications	Increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat)
Drug	Rumensin® brand of monensin³
Use Level	10 - 40 g/ton ²
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Tylan® brand of Tylosin³
Use Level	8 - 10 g/ton
Indications	Reduction of incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i>
Drug	Exporior™ brand of lubabegron fumarate
Use Level	13 - 90 mg/head/day ⁴
Indications	Reduction of ammonia gas emissions

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian.

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.

² Up to 480 mg/head/day.

³ Expressed on a 90% dry matter basis.

⁴ Complete feed: 1.25 – 4.54 g/ton.

Table 16. DRUG COMBINATION: MGA and oxytetracycline

ANIMAL CLASS: Heifers in confinement for slaughter.

APPLICATION: Reduction of liver condemnation, suppression of estrus, and performance enhancement.

Drug	MGA® brand of melengestrol acetate
Use Level	0.25 - 0.50 mg/head/day ¹
Indications	Increased rate of weight gain and suppression of estrus (heat)
Drug	Oxytetracycline
Use Level	75 mg/head/day
Indications	Reduction of liver condemnation due to liver abscesses

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (oxytetracycline) to use by or on the order of a licensed veterinarian.

¹ Feed at the rate of 0.5 to 2.0 lb/head/day.

MGA® and Actogain®

Table 17. DRUG COMBINATION: MGA, Actogain, Rumensin, and Tylan

ANIMAL CLASS: Heifers in confinement for slaughter for the last 28-42 days on feed

APPLICATION: Prevention and control of coccidiosis, reduction of liver abscesses, suppression of estrus, increased carcass leanness, and performance enhancement.

Drug	Actogain® brand of ractopamine hydrochloride²
Use Level	9.8 - 24.6 g/ton
Indications	Increased rate of weight gain, improved feed efficiency, and increased carcass leanness
Drug	MGA® brand of melengestrol acetate
Use Level	0.125 - 1.0 mg/lb
Indications	Increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat)
Drug	Rumensin® brand of monensin²
Use Level	10 - 40 g/ton ¹
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug	Tylan® brand of tylosin phosphate²
Use Level	8 - 10 g/ton
Indications	Reduction of incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i>
Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian. ¹ Up to 480 mg/head/day. ² Expressed on a 90% dry matter basis.	

Actogain®

Table 18. DRUG COMBINATION: Actogain, Rumensin, and Tylan

ANIMAL CLASS: Confinement for slaughter

APPLICATION: Prevention and control of coccidiosis, reduction of liver abscesses, performance enhancement, and/or increased carcass leanness.

Drug Actogain® brand of ractopamine hydrochloride ²		
Use Level	8.2 - 24.6 g/ton	9.8 - 24.6 g/ton
Indications	Increased rate of weight gain and improved feed efficiency	Increased rate of weight gain, improved feed efficiency, and increased carcass leanness
Drug Rumensin® brand of monensin ²		
Use Level	10 - 40 g/ton ¹	10 - 40 g/ton ¹
Indications	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>	Prevention and control of coccidiosis due to <i>Eimeria bovis</i> and <i>Eimeria zuernii</i>
Drug Tylan® brand of tylosin phosphate ²		
Use Level	8 - 10 g/ton	8 - 10 g/ton
Indications	Reduction of incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i>	Reduction of incidence of liver abscesses caused by <i>Fusobacterium necrophorum</i> and <i>Arcanobacterium (Actinomyces) pyogenes</i>

Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug (Tylan) to use by or on the order of a licensed veterinarian.

¹ Up to 480 mg/head/day.

² Expressed on a 90% dry matter basis.

