

GROWING-FINISHING CATTLE MANAGEMENT

Goal: Feed Cattle for a profit potential greater than market value of feedstuffs consumed and risk associated with feeding program.

The AG LAND BEEFMAKER Premix Program for growing-finishing cattle is designed to provide balanced nutrition by utilizing farm grown grains and roughage. For feeder cattle to effectively metabolize these feeds they must be supplemented with protein, vitamins and minerals.

AG LAND RECEIVING CATTLE PROGRAM

New arrival feeder cattle have been subject to stress. For shipped cattle the stress is associated with weaning, handling and subsequent movement to cattle feeding facilities.

The result of this stress is shrink (weight loss) from emptying of the digestive tract and the loss of metabolic water with mineral elements from body tissues. To regain the shrink weight and maintain the animals' health, these moisture and nutrient losses need to be restored as soon as possible.

Expecting hungry, thirsty, tired and bewildered feeder calves to readily consume strange ration ingredients may lead to digestive disorders and then further health problems.

In following the AG LAND Receiving Program, the cattle feeder had a management program designed to combat these stresses (shrink, energy exhaustion, hormonal changes, rumen microbial repopulation, etc.) The Ag Land Receiving Program helps rebuild the tissue immune system and the rumen is inoculated with microbial organisms and enzymes. Hence the animals' ability to resist infectious organisms is strengthened.

RECEIVING CATTLE PROGRAM

Controlling stress and getting incoming feeder cattle off to a good start reduces the incidence of Bovine Respiratory Disease. Feed Consumption and the rate of gain are dramatically improved if this shipping fever is complex and controlled. Items of concern are nutrition, herd health and management

- Inject with Vitamin A & D
- Tag or Brand
- Castrate and dehorn within 21 days
- Pregnancy check heifer calves and abort per veterinarian recommendation.

Management

Before you start, know where you are going. Consider all costs and expected returns. Take into account the amount and type of feed available.

- Observe animals closely and follow local veterinarian's advice in treating all sick animals.
- Roughage
 - Allow Access to good quality grass hay before grain feeding initially
 - Haylage or silage may be substituted as part of the roughage after appetite is established.
 - Keep fresh – READ THE BUNK.
- Grain
 - Use rolled or coarsely ground
 - Hand-feed twice daily
 - Keep fresh
- Water
 - Keep fresh, Tanks preferred
- Top Dressing (for producers not equipped to grind and mix)
 - One-half pound of Beefmaker RM per head per day (divided into two feedings).
 - One ounce of Beefmaker Receiving Premix per one hundred pounds of body weight (divided into two feedings).

NUTRITION

Receiving Ration

Grain rolled oats/cracked corn/ect.	1390
Soybean oil meal (44%)	300
Beefmaker Receiving Premix	175
AS 700	100
Ag Lac	10
Gro-Tec Yeast Extra	<u>25</u>
	2000

- Feed one pound per head daily for 2-3 days. Then increase to two pounds twice daily. Feed for 21 days.
- Offer free choice good quality grass hay. Keep fresh.
- Balance the total daily ration energy level to achieve 1.8 : 22.73 pound gain. The ration crude protein level should correspond to 1.5%-14.5%.
- Offer Beefmaker Receiving Premix and loose white salt free choice.
- Provide clean, fresh drinking water with Ag Bac (liquid application).
- Add one pound Ag Bac feed concentrate to the receiving ration when dry application is more feasible.

HEARD HEALTH

Consult Local Veterinarian for his recommendation concerning the following suggestions.

- Worm all cattle individually.
- Treat animals for lice.
- Treat all animals for grubs.
- Implant all animals with growth promotant.
- Vaccinate all animals.
 - IBR-PL3
 - 7-way Clostridium
 - Lepto 5-way
 - BVD (depending on background)
 - H. Somnus

- Facility – check before cattle arrive
 - Provide hospital pens and adequate working chutes
 - Water – one foot of tank space per 10 head will allow cattle to drink approximately 1 gallon/100 lbs. body weight.
 - Feed bunks should be 24 inches high and 6-8 inches deep. Allow 1.5 feet per head. Hay racks should provide 1.5 feet per head also.
 - Mineral and salt should be kept dry and fresh.
 - General: Feedlot buildings, feedbunks and waterers cleaned; mudholes filled; fences repaired; fly and lice control implemented.

GROWING-FINISHING PROGRAM

After cattle have been purchased and started on a receiving program, the main management decisions left for the growing-finishing phase center around the ration components, the feeding program and the marketing plan.

If one simple feeding program could be set-up, the feeding of cattle would be a relatively easy task. However, considering such variables as feedstuffs, the cattle, facilities, feed costs, interest charges, overhead, desired weight gain, marketing plan, etc., it is easy why this is not the case. The Ag Land Growing-Finishing Program has the objective of offering the cattle feeder the Ag Land Beefmaker Premixes that will fit into his particular feeding program.

The ration components should be based on the cattle feeder's farm grown feedstuffs. Other quality ingredients that can be competitively purchased should be considered when they will fit into the feeding program. The feeding program to be followed should be determined by:

- Condition of cattle after receiving program
- Sex of cattle
- Age
- Frame size
- Average daily gain or finishing weight
- Carcass quality

Contact your Gro-Tec, Inc. representative so a beef feeding program can be developed from the factors mentioned above to generate a profitable feeding enterprise with Ag Land Beefmaker Premixes.

BEEFMAKER PRODUCTS

BEEFMAKER RECEIVING PREMIX – for the first 21 days incoming cattle are in the feedlot. Provide generous levels of calcium, phosphorous, and vitamins A, D and E. To help in fast recovery from shipping stress and shrink, this Ag Land Premix supplies potassium, niacin, thiamine, and sodium bicarbonate.

BEEFMAKER RM – is a medicated natural protein product fed with the Ag Land Receiving Premix. Fed at 0.5 lb. Per day during the initial 289 days cattle are in the feedlot. Provides 350 mg. Aureomycin, 350 mg. Sulfamethazine to aid in combating stress conditions associated with new arrival cattle. Feed in grain mix or can be top dressed.

BEEFMAKER 2 – is a complete beef premix designed to balance the mineral needs for cattle on moderate to low calcium diets where a 4:1 calcium to phosphate ration is needed. Available with Rumensin Bovatec, MGA.

BEEFMAKER 7RH – is a complete beef premix designed to balance the mineral needs for cattle on high grain rations where a 7:1 calcium to phosphorus ratio is needed.

General Information

- Feeders
 - Excessive mud in lots makes cattle unthrifty.
 - Plenty of good clean water is essential for good growth.
 - Three pounds of silage are equal to 1 pound of hay on an as-fed basis.
 - Steers usually bring higher prices than heifers. Research has proven the benefits of feed additives and implants for beef cattle.
 - Cattle daily consume dry matter in amounts equal to 1.4 to 2.7 percent of their live weight.

AG LAND

ASPERGILLUS ORYZAE - Helps treat intestinal disorders, helps breakdown certain fibers and grains. Tends to lower the risk of cardiovascular problems.

ASPERGILLUS NIGER - It is derived from a soil saprode with a wide array of hydrolytes and oxidative enzymes involved in the breakdown of plant lignocellulose, degrading fiber, and has molecular mechanisms critical to fermentation process.

BACILLUS SUBTILLUS - Works as kind of a fungicidal while not being a true fungicidal, it colonizes the "root" system of the bacteria leaving no way for the fungal organisms to grow. It is also beneficial in de-sizing fiber and starches making them more readily available for digestion.

The combination of these digestive enzymes activity has shown to increase fiber digestion by as much as 50%.
(more cows per acre ??)

ACTIVE DRY YEAST - A form of yeast that is dehydrated granules that are alive but dormant by the lack of moisture. It speeds up digestion allowing more feed to be digested in a shorter time. (more digestion-more consumption)



Determination of Relative Bioavailability of Copper from Copper Amino Acid Complex vs. Copper Sulfate in Growing Beef Steers

In the below table, the RBV for copper from Copper Amino Acid Complex was determined relative to Cu from copper sulfate. Using the slope ratio technique, the liver copper RBV for Copper Amino Acid Complex was calculated to be 115.5% compared with copper from copper sulfate. Although this RBV was not statistically significant, steers in this trial started with an internal copper concentration more than 100 ppm (DM basis) higher than the Hansen et al., 2018 study. In addition, the Hansen (2018) study tested copper sources for 148 days with a greater copper antagonism based on 6 ppm Mo compared to nearly 3 ppm Mo in this 90-day study. Lastly, control steers with the current antagonism regimen did not reach clinical Cu deficiency of < 33 ppm Cu (DM basis) as reported by Kincaid in 1999.

Estimated relative bioavailability of copper glycinate compared to copper sulfate for 90 days on growing beef steers liver copper concentrations, based on multiple linear regression of liver copper on total supplemental copper intake¹.

Cu intake ^{2,3}	Cu Source	Slope ± SE	P-value ⁴	Relative Bioavailability, %
Liver Cu	Sulfate	13.92 ± 2.021	.27	100
	Glycinate	16.08 ± 2.056		115.5

¹ Based on regression of Cu indices, liver Cu in mg/kg DM, on total supplemental Cu intake (g) of steers over the 90-day period.

² Regression based on final measurements following feeding a diet containing 0.3% S from calcium sulfate and 2 mg Mo/kg DM from sodium molybdate for 90 days.

³ Initial values were used as a covariate in analysis for final liver concentrations.

⁴ P-value for slope between Cu sources.

POLYSACCHARIDE COMPLEXED TRACE MINERALS

POLYSACCHARIDE COMPLEXED TRACE MINERALS are made through a patented process whereby sulfate trace minerals are imbedded in the polysaccharide matrix of kelp. These organic trace minerals are labeled as **POLYSACCHARIDE COMPLEXES** of Zinc, Manganese, Iron, Copper and Cobalt.

Poly-complexed trace minerals do not harm vitamins. Also, they are not tied up and made unavailable by antagonists in the feed such as fiber and phytic acid. Almost 100% of the poly-complexed traces are absorbed into the bloodstream where they are utilized for growth, production and reproduction. In contrast, up to 100% of other trace minerals are tied up in the feed, rumen, and stomach and are unavailable to livestock. The following are benefits of **POLYSACCHARIDE COMPLEXED TRACE MINERALS** for BEEF:

- **Won't destroy vitamins in premix and feeds**
- **Better reproduction and conception.** Tests show up to **20 days shorter calving interval** and $\frac{1}{2}$ less services per conception.
- **Not tied up in feed** with antagonists such as fiber in roughage and phytic acid in soybean meal. More mineral available.
- **70% Rumen Bypass.** Minerals get into bloodstream and tissues.
- **Acid tolerant in stomach.** Not made un-digestible by stomach acids like oxides, carbonates, sulfates and chelated minerals.
- **Totally released in small intestine by pancreatin enzymes.**
- **Higher blood levels than other traces (2X sulfates, 4X oxides)**

AG LAND

BEEFMAKER RECEIVING PREMIX

Mineral for incoming feedlot beef cattle

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	17.00%
Calcium (Ca), Max.....	19.00%
Phosphorous (P), Min.....	4.00%
Magnesium (Mg), Min.....	2.00%
Potassium (K), Min.....	10.00%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb
Niacin, Min.....	2,200 ppm
Thiamine, Min.....	240 ppm

INGREDIENTS

Calcium Carbonate, Monocalcium Phosphate, Potassium Chloride, Potassium Sulfate, Magnesium Sulfate, Sodium Sesquicarbonate, Processed Grain By-Products, Dried Cane Molasses, Magnesium Oxide, Niacin Supplement, Mineral Oil, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Thiamine Mononitrate, Ethylenediamine Dihydriodide, Active Dry Yeast, Polysaccharide Complex of Zinc, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

BEEFMAKER RECEIVING PREMIX is to be fed for the first 21 days cattle are in the feedlot at six (6) ounces per head per day. This premix is designed to provide generous levels of major and trace minerals, vitamins and yeast for the first 21 days incoming cattle are in the feedlot to help animals overcome the effects of shrink and shipping stress.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND

BEEFMAKER 2/RUMENSIN

MEDICATED

For beef cattle in feedlot and stocker cattle on pasture

For improved feed efficiency of cattle being fed in confinement for slaughter and for pasture cattle weighing more than 400 pounds for increased weight gains.

ACTIVE INGREDIENT

Monensin as (Monensin Sodium).....1200 G/Ton

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	19.00%
Calcium (Ca), Max.....	21.00%
Phosphorous (P), Min.....	10.00%
Salt (NaCl), Min.....	5.00%
Salt (NaCl), Max.....	6.00%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	2.00%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Monocalcium Phosphate, Calcium Carbonate, Salt, Potassium Sulfate, Magnesium Sulfate, Potassium Chloride, Magnesium Oxide, Dried Cane Molasses, Mineral Oil, Processed Grain By-Products, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

Mix 200 pounds of BEEFMAKER 2/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate to provide the level of BEEFMAKER 2/RUMENSIN for the weight cattle indicated in the following chart.

CATTLE WEIGHT	BEEFMAKER 2/RUMENSIN	MONENSIN
Up to 600 lbs	.25 lbs.	150 mg
Up to 700 lbs	.30 lbs.	180 mg
Up to 800 lbs	.35 lbs.	210 mg
Up to 900 lbs	.40 lbs.	240 mg
Up to 1000 lbs	.45 lbs.	270 mg

For stocker and feeder cattle weighing more than 400 lbs. on pasture, mix 200 pounds of BEEFMAKER 2/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate of one (1) to three (3) and one quarter (1/4) pounds per head per day so that each animal receives not less than 50 nor more than 200 mg Monensin daily. During the first five (5) days pasture cattle should receive no more than 100 mg of Monensin per head per day contained in not less than one (1) pound of feed.

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle and could be to goats. Must be thoroughly mixed in feeds before use. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Do not feed to lactating goats. If feed refusals containing Monensin are fed to other groups of cattle, the concentrations of Monensin in the refusals and amount of refusals fed should be taken into consideration to prevent Monensin overdosing. A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal. Use as directed.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND BEEFMAKER 4

For beef cattle on pasture

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	15.00%
Calcium (Ca), Max.....	17.00%
Phosphorous (P), Min.....	4.00%
Salt (NaCl), Min.....	5.50%
Salt (NaCl), Max.....	6.50%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	1.20%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Calcium Carbonate, Processed Grain By-Products, Monocalcium Phosphate, Sodium Bentonite, Salt, Potassium Sulfate, Magnesium Sulfate, Dried Cane Molasses, Magnesium Oxide, Mineral Oil, Potassium Chloride, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

BEEFMAKER 4 should be self-fed in dry, wind free, rain protected feeders. Place feeders near a water source where animals gather. Provide fresh, clean water at all times. Also, provide salt free choice at all times. This mineral is designed to help fortify the ration with major and trace minerals, vitamins and yeast needed for optimum beef cattle performance.

Beef cattle should consume BEEFMAKER 4 at the rate of 4 oz/head/day.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

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AG LAND

BEEFMAKER 4/RUMENSIN

MEDICATED

For beef cattle in feedlot and stocker cattle on pasture

For improved feed efficiency of cattle being fed in confinement for slaughter and for pasture cattle weighing more than 400 pounds for increased weight gains.

ACTIVE INGREDIENT

Monensin as (Monensin Sodium).....1200 G/Ton

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	15.00%
Calcium (Ca), Max.....	17.00%
Phosphorous (P), Min.....	4.00%
Salt (NaCl), Min.....	5.00%
Salt (NaCl), Max.....	7.00%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	2.00%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Calcium Carbonate, Processed Grain By-Products, Monocalcium Phosphate, Salt, Potassium Sulfate, Magnesium Sulfate, Sodium Bentonite, Dried Cane Molasses, Magnesium Oxide, Mineral Oil, Potassium Chloride, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

Mix 200 pounds of BEEFMAKER 4/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate to provide the level of BEEFMAKER 4/RUMENSIN for the weight cattle indicated in the following chart.

CATTLE WEIGHT	BEEFMAKER 4/RUMENSIN	MONENSIN
Up to 600 lbs	.25 lbs.	150 mg
Up to 700 lbs	.30 lbs.	180 mg
Up to 800 lbs	.35 lbs.	210 mg
Up to 900 lbs	.40 lbs.	240 mg
Up to 1000 lbs	.45 lbs.	270 mg

For stocker and feeder cattle weighing more than 400 lbs. on pasture, mix 200 pounds of BEEFMAKER 4/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate of one (1) to three (3) and one quarter (1/4) pounds per head per day so that each animal receives not less than 50 nor more than 200 mg Monensin daily. During the first five (5) days pasture cattle should receive no more than 100 mg of Monensin per head per day contained in not less than one (1) pound of feed.

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle and could be to goats. Must be thoroughly mixed in feeds before use. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Do not feed to lactating goats. If feed refusals containing Monensin are fed to other groups of cattle, the concentrations of Monensin in the refusals and amount of refusals fed should be taken into consideration to prevent Monensin overdosing. A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal. Use as directed.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND

BEEFMAKER 6/RUMENSIN

MEDICATED

For beef cattle in feedlot and stocker cattle on pasture

For improved feed efficiency of cattle being fed in confinement for slaughter and for pasture cattle weighing more than 400 pounds for increased weight gains.

ACTIVE INGREDIENT

Monensin as (Monensin Sodium).....1200 G/Ton

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	22.00%
Calcium (Ca), Max.....	26.00%
Phosphorous (P), Min.....	4.00%
Salt (NaCl), Min.....	5.50%
Salt (NaCl), Max.....	6.50%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	1.20%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	200,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Calcium Carbonate, Monocalcium Phosphate, Salt, Processed Grain By-Products, Potassium Sulfate, Magnesium Sulfate, Sodium Bentonite, Dried Cane Molasses, Magnesium Oxide, Mineral Oil, Potassium Chloride, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

Mix 200 pounds of BEEFMAKER 6/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate to provide the level of BEEFMAKER 6/RUMENSIN for the weight cattle indicated in the following chart.

CATTLE WEIGHT	BEEFMAKER 6/RUMENSIN	MONENSIN
Up to 600 lbs	.25 lbs.	150 mg
Up to 700 lbs	.30 lbs.	180 mg
Up to 800 lbs	.35 lbs.	210 mg
Up to 900 lbs	.40 lbs.	240 mg
Up to 1000 lbs	.45 lbs.	270 mg

For stocker and feeder cattle weighing more than 400 lbs. on pasture, mix 200 pounds of BEEFMAKER 6/RUMENSIN with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate of one (1) to three (3) and one quarter (1/4) pounds per head per day so that each animal receives not less than 50 nor more than 200 mg Monensin daily. During the first five (5) days pasture cattle should receive no more than 100 mg of Monensin per head per day contained in not less than one (1) pound of feed.

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle and could be to goats. Must be thoroughly mixed in feeds before use. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Do not feed to lactating goats. If feed refusals containing Monensin are fed to other groups of cattle, the concentrations of Monensin in the refusals and amount of refusals fed should be taken into consideration to prevent Monensin overdosing. A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal. Use as directed.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND BEEFMAKER 7RH

MEDICATED

Mineral for beef cattle in feedlot

For increased rate of weight gain, improved feed efficiency and suppression of estrus (heat) in heifers fed in confinement for slaughter.

ACTIVE INGREDIENT

Monensin (Monensin Sodium).....	1200 G/Ton
Melengestrol Acetate (MGA).....	1600 MG/Ton

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	19.00%
Calcium (Ca), Max.....	21.00%
Phosphorous (P), Min.....	2.50%
Salt (NaCl), Min.....	5.50%
Salt (NaCl), Max.....	6.50%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	1.20%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Calcium Carbonate, Processed Grain By-Products, Monocalcium Phosphate, Salt, Potassium Sulfate, Magnesium Sulfate, Sodium Bentonite, Dried Cane Molasses, Magnesium Oxide, Mineral Oil, Potassium Chloride, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Zinc Amino Acid Complex, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

Mix 500 pounds of BEEFMAKER 7RH with other feed ingredients to make one ton of cattle supplement. This supplement to be fed continuously throughout the time the feedlot heifers are being grown and finished for slaughter at a rate of two (2) pounds per head per day to provide 0.4 mg of Melengestrol Acetate and 300 mg of Monensin per head per day.

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle and could be to goats. Must be thoroughly mixed in feeds before use. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Do not feed to lactating goats. If feed refusals containing Monensin are fed to other groups of cattle, the concentrations of Monensin in refusals and amount of refusals fed should be taken into consideration to prevent Monensin overdosing. A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal.

WARNING: Discontinue feeding BEEFMAKER 7RH 48 hours prior to slaughter.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND BEEFMAKER RU 110

MEDICATED

For beef cattle in feedlot

For improved feed efficiency of cattle being fed in confinement for slaughter

ACTIVE INGREDIENT

Monensin as (Monensin Sodium).....1200 G/Ton

GUARANTEED ANALYSIS

Equivalent Crude Protein Non Protein Nitrogen (NPN).....	110.00%
Calcium (Ca), Min.....	12.00%
Calcium (Ca), Max.....	14.00%
Phosphorous (P), Min.....	4.00%
Salt (NaCl), Min.....	2.00%
Salt (NaCl), Max.....	3.00%
Magnesium (Mg), Min.....	1.50%
Potassium (K), Min.....	1.00%
Copper (Cu), Min.....	1,650 ppm
Iodine (I), Min.....	175 ppm
Selenium (Se), Min.....	35 ppm
Zinc (Zn), Min.....	5,400 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	240 IU/lb

INGREDIENTS

Urea, Calcium Carbonate, Monocalcium Phosphate, Potassium Sulfate, Magnesium Sulfate, Salt, Magnesium Oxide, Dried Cane Molasses, Mineral Oil, Potassium Chloride, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Selenium Yeast, Ferrous Amino Acid Complex, Zinc Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Manganese Amino Acid Complex, Soybean Oil, Ethylenediamine Dihydriodide, Polysaccharide Complex of Zinc, Active Dry Yeast, Polysaccharide Complex of Iron, Copper Amino Acid Complex, Cobalt Carbonate, Polysaccharide Complex of Manganese, Polysaccharide Complex of Copper, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Cobalt Glucoheptonate, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

Mix 200 pounds of BEEFMAKER RU 110 with other feed ingredients to make one ton of a complete cattle supplement. This supplement to be fed at a rate to provide the level of BEEFMAKER RU 110 for the weight cattle indicated in the following chart.

CATTLE WEIGHT	BEEFMAKER RU 110	MONENSIN
Up to 600 lbs	.25 lbs.	150 mg
Up to 700 lbs	.30 lbs.	180 mg
Up to 800 lbs	.35 lbs.	210 mg
Up to 900 lbs	.40 lbs.	240 mg
Up to 1000 lbs	.45 lbs.	270 mg

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle and could be to goats. Must be thoroughly mixed in feeds before use. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Do not feed to lactating goats. If feed refusals containing Monensin are fed to other groups of cattle, the concentrations of Monensin in the refusals and amount of refusals fed should be taken into consideration to prevent Monensin overdosing. A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal. Use as directed.

**Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358**

NET WT 50 LB (22.7 kg)

LOT#

AG LAND

CALF CREEP/DECOX

MEDICATED

MINERAL FOR CALVES AND GROWING CATTLE ON PASTURE

For the prevention of coccidiosis in ruminating and nonruminating calves and cattle caused by *Eimeria bovis* and *Eimeria zuernii*. Feed at least 28 days during periods of coccidiosis exposure or when experiences indicates that coccidiosis is likely to be a hazard. Coccidiostats are not indicated for use in adult animals due to continuous previous exposure.

GUARANTEED ANALYSIS

Calcium (Ca), Min.....	23.0%
Calcium (Ca), Max	27.0%
Phosphorus (P), Min.....	6.0%
Salt (NaCl), Min.....	4.0%
Salt (NaCl), Max.....	6.0%
Iodine (I), Min	75 ppm
Magnesium (Mg), Min.....	1.5%
Potassium (K), Min.....	0.80%
Selenium (Se), Min.....	5 ppm
Vitamin A, Min	300,000 IU/lb
Vitamin D, Min	200,000 IU/lb
Vitamin E, Min	300 IU/lb

INGREDIENTS

Calcium Carbonate, Monocalcium Phosphate, Salt, Potassium Sulfate, Magnesium Sulfate, Magnesium Oxide, Dried Molasses, Mineral Oil, Distillers Dried Grains with Solubles, Manganese Amino Acid Complex, Yeast Concentrate, Potassium Chloride, Zinc Sulfate, Zinc Amino Acid Complex, Niacin Supplement, Choline Chloride, Zinc Oxide, Manganous Oxide, Ferrous Sulfate, Copper Sulfate, Cobalt Glucoheptonate, Vitamin E Supplement, Potassium Iodide, Copper Amino Acid Complex, Vitamin A Supplement, D-Activated Animal Sterol (Source of Vitamin D3), Vitamin B12 Supplement, Sodium Selenite, Cobalt Carbonate, Natural and Artificial Flavors.

FEEDING DIRECTIONS

CALF CREEP/DECOX can be fed as a top dress at the rate of one (1) ounce per head per day. CALF CREEP/DECOX can be mixed in the following suggested rations at 50 lbs. per ton as shown below and self-fed with high quality forage.

MIXING DIRECTIONS

	18% PROTEIN	18% PROTEIN	16% PROTEIN	16% PROTEIN
Shelled, Cracked Corn	1465 lbs.	1090 lbs.	1560 lbs.	1190 lbs.
Oats, Rolled or Course	0 lbs.	400 lbs.	0 lbs.	400 lbs.
Soybean Meal 48%	475 lbs.	450 lbs.	380 lbs.	350 lbs.
Salt	10 lbs.	10 lbs.	10 lbs.	10 lbs.
Calf Creep/Decox	50 lbs.	50 lbs.	50 lbs.	50 lbs.
	2000 lbs.	2000 lbs.	2000 lbs.	2000 lbs.

WARNING: Do not feed to breeding animals or animals producing milk for food.

GRO-TEC, INC.
10324 W. US HWY 36
MODOC, IN 47358

NET WT. 50 LBS. (22.68 kg.)

LOT.#

GRO-TEC YEAST EXTRA

For livestock, poultry and pet foods

GUARANTEED ANALYSIS

Crude Protein, Min.....	23.00%
Crude Fat, Min.....	5.00%
Crude Fiber, Max.....	10.00%
Saccharomyces Cervisiae, Min.....	12 Million CFU's/lb

INGREDIENTS

Processed Grain By-Products, Roughage Products, Sodium Bentonite, Calcium Carbonate, Dried Yeast, Brewers Dried Grains, *Saccheromyces cervisiae* Fermentation Extract Dehydrated, Dried *Aspergillus oryzae* Fermentation Extract, Dried *Bacillus licheniformis* Fermentation Extract, Dried *Bacillus subtilis* Fermentation Extract and Silicon Dioxide.

DIRECTIONS FOR USE

GRO-TEC YEAST EXTRA is a feed supplement designed to be mixed with nutritionally balanced complete feeds for Dairy, Beef, Swine, Poultry, Horses, and Companion Animals. It may be Top Dressed on Beef, Dairy, Horse, and Swine feeds.

Dairy	Complete Dairy Ration	5-15 lbs/ton
	Lactation Grain Ration	10-20 lbs/ton
	Top Dress	2.0 oz/head/day
Beef	Grower/Finisher Rations	5-20 lbs/ton
	Top Dress	1-2.0 oz/head/day
Swine	Gestation/Lactation & Starter Rations	10-20 lbs/ton
	Grower/Finisher Rations	5-10 lbs/ton
Poultry	Starter/Breeder & Layer Rations	5-10 lbs/ton
	Broiler Grower/Finisher Rations	2-5 lbs/ton
Horses	Grain Ration	10-20 lbs/ton
	Top Dress	1-2.0 oz/head/day
Cat/Dog	Complete Ration	10-20 lbs/ton

**Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358**

NET WT 50 LB (22.7 kg)

LOT#
Patent Pending

G-MANNA-CEL

For the manufacture of livestock feeds

GUARANTEED ANALYSIS

Crude Protein, Min.....	20.00%
Crude Fat, Min.....	1.00%
Crude Fiber, Max.....	10.00%
Niacin, Min.....	500 ppm
Pantothenate, Min.....	90 ppm
Riboflavin, Min.....	100 ppm

INGREDIENTS

Calcium Montmorillonite, Brewers Dried Yeast, Processed Grain By-Products, Dried Whey, Extracted Citric Acid Presscake, Silicon Dioxide, Yucca Schidigera Extract, Calcium Carbonate, Calcium Aluminosilicates, Niacin Supplement, Brewers Dried Grains, Vitamin B12 Supplement, Calcium Pantothenate, Riboflavin Supplement, Menadione Sodium Bisulfite Complex (source of Vitamin K activity), Mineral Oil, Biotin and Thiamine Mononitrate.

FEEDING DIRECTIONS

Dairy:	1-2 oz (28-56 gm)/head/day
Beef:	
Calves.....	8 lbs/per ton
Growers.....	4 lbs/per ton
Swine:	
Starters.....	8 lbs/per ton
Growers.....	4 lbs/per ton
Poultry:	
Layers.....	2-4 lbs/per ton
Broilers.....	2-8 lbs/per ton
Sheep/Goats:	4-10 lbs/per ton

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND AG LAC

For the manufacture of livestock feeds and as a top dress for lactating dairy cows and lactating sows

GUARANTEED ANALYSIS

Crude Protein, Min.....	10.00%
Crude Fat, Min.....	2.50%
Crude Fiber, Max.....	12.00%
Total Lactic Acid Producing Bacteria, Min.....	5.8 Billion CFU's/lb

INGREDIENTS

Dried Extracted Streptomyces Fermentation Solubles, Corn Germ Meal, Processed Grain By Products, Dried Lactobacillus acidophilus Fermentation Product, Dried Lactobacillus lactis Fermentation Product, Dried Lactobacillus plantarium Product, Dried Enterococcus cermoris Fermentation Product, Dried Enterococcus dicetylactis Fermentation Product, Dried Bacillus subtillis Fermentation Product, Dried Aspergillus oryzae Fermentation Product, Extracted Streptomyces Fermentation Meal, Dried Fermented Corn Extractives and Dried Yeast.

FEEDING DIRECTIONS

Lactating Dairy Cows	Top Dress.....	1/2-1 oz/head/day
Lactating Sows	Top Dress.....	1/4-1 oz/head/day

MIXING DIRECTIONS FOR COMPLETE FEEDS

Cattle	Calves and Incoming Cattle.....	10 lbs./ton
	Beef, Dairy and Feedlot Cattle.....	5 lbs./ton
Horses	Creep.....	10 lbs./ton
	Maintenance and Work.....	5 lbs./ton
Poultry and Turkeys		5 lbs./ton
Swine	Starter, Grower, Finisher, Gestation.....	5 lbs./ton
	Lactation.....	10 lbs./ton
Sheep		5 lbs./ton

Store in a dry place. Do not expose to direct sunlight.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND HAY TREAT 21

GUARANTEED ANALYSIS

Total Lactic Acid Producing Bacteria.....300 Billion CFU/lb
Contains a source of live (viable) naturally occurring microorganisms

INGREDIENTS

Calcium Carbonate, Dextrose, Iron Oxide, Cobalt Carbonate, Lactobacillus Plantarum Fermentation Product Dehydrated, Pediococcus Pentosaceus Fermentation Product Dehydrated, Pediococcus Acidilactici Fermentation Product Dehydrated, Enterococcus Faecium Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Streptococcus Lactis Fermentation Product Dehydrated, Dried Aspergillus Oryzae Fermentation Extract, Dried Bacillus Subtillis Fermentation Extract.

FEEDING DIRECTIONS

HAY TREAT 21 is designed to be used as a forage inoculant and preservative and is to be applied at the rate of one-half to one pound of HAY TREAT 21 per one ton of Hay or Baleage, as indicated below.

PRODUCT	RECOMMENDED MIN.	MOISTURE MAX.
Alfalfa Hay	10%	21%
Grass Hay	10%	21%
Baleage	15%	35%

NOTE: It is suggested product not be left in applicator for extended periods of time.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#

AG LAND

BEEF BACKGROUNDING EDGE/R

For increased rate of gain for stocker cattle on pasture

ACTIVE INGREDIENT

Monensin as (Monensin Sodium).....120 G/Ton

GUARANTEED ANALYSIS

Crude Protein, Min.....14.00%
Crude Fat, Min.....4.50%
Crude Fiber, Max.....8.00%
Calcium (Ca), Min.....4.50%
Calcium (Ca), Max.....5.50%
Phosphorous (P), Min.....2.00%
Salt (NaCl), Min.....22.00%
Salt (NaCl), Max.....26.00%
Iodine (I), Min.....65 ppm
Selenium (Se), Min.....12 ppm
Zinc (Zn), Min.....1,900 ppm
Vitamin A, Min.....145,000 IU/lb
Vitamin D, Min.....50,000 IU/lb
Vitamin E, Min.....120 IU/lb

INGREDIENTS

Processed Grain By-Products, Salt, Calcium Carbonate, Monocalcium Phosphate, Dried Cane Molasses, Mineral Oil, Magnesium Oxide, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Vitamin E Supplement, Vitamin A Supplement, Zinc Amino Acid Complex, Selenium Yeast, D-Activated Animal Sterol (Source of Vitamin D3), Ferrous Amino Acid Complex, Soybean Oil, Manganese Amino Acid Complex, Ethylenediamine Dihydriodide, Active Dry Yeast, Cobalt Carbonate, Sugar, Yeast Culture, Dried Bacillus subtilis Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Trichoderma reesi Fermentation Extract, Lactobacillus acidophilus Fermentation Product Dehydrated, Lactobacillus casei Fermentation Product Dehydrated, Bifidobacterium thermophilum Fermentation Product Dehydrated, Enterococcus faecium Product Dehydrated, Sodium Selenite and Natural Flavors.

FEEDING DIRECTIONS

BEEF BACKGROUNDING EDGE/R is to be hand fed at the rate of one (1) to two (2) pounds per head per day depending on weight of the cattle and conditions of the forage to provide 120 to 240 mg per head per day of Monensin. Feed bunks should be placed close to a water source. Provide fresh, clean water at all times.

CAUTION: Do not allow horses or other equines access to feeds containing Monensin. Ingestion of Monensin by horses has been fatal. Monensin medicated cattle feed is safe for use in cattle only. Consumption by unapproved species may result in toxic reactions. Do not exceed levels of Monensin recommended in feeding directions, as reduced average daily gains may result. Feeding undiluted or mixing errors resulting in higher concentrations of Monensin has been fatal to cattle. Must be thoroughly mixed in feeds before use. Do not feed undiluted. Use as directed. Consumption of this product by sheep and goats may result in copper toxicity.

Manufactured By
GRO-TEC, INC.
10324 W US HWY 36
MODOC, IN 47358

NET WT 50 LB (22.7 kg)

LOT#



Rumensin®

Rumensin® (monensin) is a proven management tool that optimizes your investment by improving cattle weight gain and feed efficiency, even as the quality of forage changes from year to year.¹

ADDITIONAL SELLING WEIGHT — For pennies per head per day, Rumensin delivers 20 lbs or more per head of additional selling weight during a 100-day grazing period for stocker cattle.¹

COCCIDIOSIS PREVENTION AND CONTROL — Rumensin is the most potent feed ingredient available that kills coccidiosis parasites at three different stages in the life cycle^{2,3} instead of simply slowing their development. Additionally, it is more efficacious at lower doses compared to other ionophores.⁵

ONLY IONOPHORE APPROVED FOR BEEF COWS — Rumensin improves feed efficiency in beef cows, reducing their feed requirements 5 to 10 percent while maintaining body weight with no negative impacts on reproductive performance.⁴ Rumensin also improves average daily gain in replacement heifers, resulting in fewer days to first estrus — which can result in improved lifetime productivity.⁵



For pennies per head per day, stocker producers with the Rumensin® advantage can achieve 20 pounds or more per head of additional selling weight during a 100-day grazing period.⁶

RUMENSIN INDICATIONS & LABEL DIRECTIONS

INDICATIONS: For increased rate of weight gain and the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii* in growing cattle on pasture or in dry lot. For improved feed efficiency when receiving supplemental feed and the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii* in mature reproducing beef cows.

STORAGE: Store at or below 25°C (77°F). Excursions permitted to 37°C (99°F). Not to be used after date printed at top of bag.

The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.

Rumensin: Growing cattle on pasture or in drylot (stockers, feeders, and dairy and beef replacement heifers)

For increased rate of weight gain: Feed 50 to 200 mg/hd/d of monensin in at least 1.0 lb of Type C medicated feed. Or, after the 5th day, feed 400 mg/hd/d every other day in at least 2.0 lbs of Type C medicated feed. The Type C medicated feed must contain 15 to 400 g/ton of monensin (90% DM basis).

For the prevention and control of coccidiosis: Feed at a rate to provide 0.14 to 0.42 mg/lb of body weight/d of monensin up to a maximum of 200 mg/hd/d. The Type C medicated feed must contain 15 to 400 g/ton of monensin (90% DM basis).

Rumensin: Mature reproducing beef cows

For improved feed efficiency when receiving supplemental feed: Feed continuously at a rate of 50 to 200 mg/hd/d of monensin. Cows on pasture or in drylot must receive a minimum of 1.0 lb of Type C medicated feed/hd/d. Do not self-feed.

For the prevention and control of coccidiosis: Feed at a rate of 0.14 to 0.42 mg/lb of body weight/d of monensin up to a maximum of 200 mg/hd/d.