

Dear Horse Owner,

The genetics of a horse will most likely determine its size and disposition as it grows and matures. This plays a great part in the selection of the horse you purchase or the bloodstock you intend to raise. When not supplied the proper nutrition to maximize the very traits that led you to purchase or raise these animals, problems may develop at a young age. One may begin to see characteristics that are not desirable and most of them are brought on by deficiencies in the diet.

We at Gro-Tec have developed, with the help of breeders, trainers, horse owners, and nutritional experts, products that ensure your horse will receive the nutritional elements that it needs to enhance the genetic traits you prefer.

We wish you much luck and success with the horse program you have chosen, and pledge to assist you in all your livestock nutritional needs.

Sincerely,

George Spiegelhalder  
Sales Manager

## **GRO-TEC'S HORSE FEEDING TIPS**

Whether it is for jumping, cutting, roping, or just pleasure riding, developing and maintaining the equine athlete requires proper nutrition.

### **HAY**

Grass or hay may comprise as much as 50% of the horse's diet. Hay quality is very important. It should be bright green, leafy and free of dust or molds.

### **GRAIN**

All cereal grains are acceptable for horse feeds. Oats have been the grain of choice because of the hulls; they have a higher content and are more filling. Corn, wheat, and milo are denser and have higher starch content. A gallon of oats weighs 4 pounds, whereas a gallon of corn weighs 7 pounds. This indicates the importance of feeding by weight instead of volume.

The following pages will outline our products and give examples of some rations to aid in the planning of the nutrition program that best fits your horse.

## **GRO-TEC'S HORSE PRODUCTS**

**HORSE 9** is a vitamin and mineral premix designed to supply calcium, phosphorous, trace minerals, and vitamins A, D, and E. When mixed with grain and a protein meal at the rate of 30 pounds per ton this product will meet the vitamin and mineral needs of adult horses, mares, colts, and foals.

**CHAMPION** is formulated to supply all the macro and micronutrients not found in most commercial horse feeds. It is a highly palatable concentrated top dress product that takes only 2 ounces per day. The product also aids in the stimulating of the appetite under stress and transporting, such as to shows.

**CHAMPION PLUS** is specifically formulated to provide your horse with the essential vitamins, major and trace minerals that are vital to strong bone structure, endurance, and overall condition and health.

**BUGGY HORSE HOOF CONDITIONER** is a special blend of biotin, 20% protein, all 10 amino acids, vitamins A, D, E, and vitamin B<sub>4</sub>, along with calcium, phosphorous, zinc, iron, copper, cobalt, selenium, and phospholipid.

**AG LAC** is a combination of concentrated sources of selected viable culture, microorganisms, and the UGF: carrier with a general application for horses.

## FEEDING ADULT HORSES

### Maintenance or Show Ration

This ration is to be fed daily at the level of 8-12 pounds based upon activity. Feed good quality hay. Top dress this ration with 4 ounces of **Champion** per day.

Oats	1000
Cracked Corn	680
SBM	140
Molasses	120
Horse 9	50
Salt	<u>10</u>
Total	2000

### Broodmares

This ration is to be fed daily at the level of 5-10 pounds 30 days before foaling/  
8-12 pounds foaling to 60 days after/8-10 pounds 60 days after foaling.  
Feed good quality hay. Top dress this ration with 4 ounces of **Champion** per day.

Oats	1000
Cracked Corn	570
SBM	250
Molasses	120
Horse 9	50
Salt	<u>10</u>
Total	2000



### Adult Horse Ration

This ration is to be fed daily at the level of 8-12 pounds based upon activity. Feed hay or pasture. Top dress this ration with 4 ounces of **Champion** per day.

Oats	1000
Cracked Corn	780
SBM	40
Horse 9	50
Molasses	120
Salt	<u>10</u>
Total	2000

## **FEEDING ADULT HORSES**

Horses fed rations that are adequate during the first two years of life will attain mature skeletal size at 20 to 24 months of age. Closure of the epiphyseal plates (growth areas at the end of bones) may occur at 18 to 20 months of age if the growing horse is fed a ration containing adequate calcium, phosphorous, and vitamin D. After plate closure there will be no further lengthening of the bones. Thickness of the bone shaft may increase and some remodeling due to applications of mechanical stress may occur after plate closure. The mechanical framework of the athlete is complete.

Muscle development continues until the horse is 3 to 4 years old. With the cessation of growth, dietary requirements of the building blocks, proteins and minerals, are reduced. The horse continues to need these nutrients but the amount required is reduced.

As the horse begins its athletic career, the greatest quantitative need is for energy. Other nutrients, proteins, vitamins, and minerals are required to maintain healthy tissues and to utilize energy, but the amounts of these nutrients represent a much smaller proportion of the total daily ration. Daily energy requirements are directly related to physical activity. As physical activity increases, energy requirements increase.

A diet of grass or hay will not meet the energy requirements of the athlete. The horse's digestive system is of limited capacity. This limits the daily air dry feed consumption to about 2 to 2.25% of body weight. Grass and hay are not digested by enzymes in the small intestine, but are fermented by bacteria in the cecum. Bacteria fermentation converts cellulose and some other carbohydrates to volatile fatty acids that are absorbed and used as sources of energy.

Because of the limited capacity and relative inefficiency of the fermentation process, physically active horses must be fed grain in addition to hay. The daily amount of grain is related to the type of athletic activity.

Protein requirements for the active horse have not been well defined. Results of several research studies indicated that strenuous activity does not increase the daily protein requirement over that requirement for maintenance. In spite of these results, it has been reported that race horses fed grain rations containing 14 to 16% protein and grass hay stay in racing condition longer than similar horses fed lower protein grain rations. Total dietary protein from both hay and grain should be 12%.

Calcium and phosphorous requirements are not increased by strenuous physical activity. Despite the fact that bone growth has ceased, calcium and phosphorous are required to maintain bone. Phosphorous is necessary for all of the metabolic reactions that result in utilization of energy. Calcium and phosphorous contained in grain and hay are

absorbed poorly, thus these nutrients must be added to the ration.

Vitamins are required nutrients. They are involved in the utilization of carbohydrates, proteins, and minerals.

Vitamins will not replace or correct deficiencies of carbohydrates, proteins, and minerals. The vitamins most apt to be deficient in horse diets are A and E.

## **FEEDING BROOD MARES**

Brood mares must be fed adequate amounts of balanced rations to aid in conception and development of the fetus. Conception rates in brood mares are poor when compared with other species. This may be due to a poor nutritional status. Mares in this condition may not show estrus because they are not prepared to carry a foal. An obese mare may show estrus but not conceive because of fat around the ovaries. As with females of other species, mares that are bred while gaining weight are more likely to conceive than those losing weight or merely maintaining weight. The grain ration should be increased 3 to 4 weeks prior to breeding so the mare is gaining weight.

Pregnant mares require proteins, minerals, and vitamins as well as energy. Underfed mares will rob their body stores to feed the developing fetus. Lowering body reserves during pregnancy may result in lower milk production and failure to rebreed.

The mare nursing a foal requires more energy, protein, calcium, and phosphorous than the pregnant mare or other adult horses. Mares can be expected to produce 5 to 6 gallons of milk per day. If energy intake is low the mare will lose weight and milk production will decline. A deficiency of protein will result in lower milk production. Dietary calcium and phosphorous deficiencies will result in withdrawal of these mineral elements from bones resulting in a weakened skeleton.

## FEEDING FOALS AND WEANLINGS

Development of the mature horse begins at birth. To realize the potential and performance, the foal must have a ration that supplies all the essential nutrients.

Growth is one of the greatest stresses a horse has to overcome. Constant changes in body stature and emotional development are very stressful. Proper nutrients are needed to promote the growth of a strong skeleton framework.

### Suggested Ration For Foals And Weanlings

Ration Analysis	
Protein	15.98%
Fat	2.93%
Fiber	7.40%
Oats	1000
Cracked Corn	470
SBM	350
Molasses	120
Horse 9	50
Salt	10
Total	<hr/> 2000

**Nursing Foals**

Creep feed free choice

**Weanlings**

Feed 1 pound per 100 pounds of body weight daily. Top dress feed with  $\frac{1}{4}$  cup of show conditioner until 1 year. Feed good quality hay or pasture free choice. Provide clean fresh water.

**Yearlings to 2 Years Old**

Feed 1.5 to 2 pounds per 200 pounds of body weight daily. Feed good quality hay. Provide clean fresh water and free choice salt.

**For Halter Horse Prospects** A strenuous exercise program daily is needed to develop a larger muscle mass in the hips, shoulders, and forearms.

# AG LAND HORSE NO. 9

Mineral for horses

## GUARANTEED ANALYSIS

Calcium (Ca), Min.....	18.00%
Calcium (Ca), Max.....	20.00%
Phosphorous (P), Min.....	9.00%
Salt (NaCl), Min.....	3.50%
Salt (NaCl), Max.....	4.50%
Copper (Cu), Min.....	1,500 ppm
Iodine (I), Min.....	36 ppm
Selenium (Se), Min.....	20 ppm
Zinc (Zn), Min.....	5,500 ppm
Vitamin A, Min.....	500,000 IU/lb
Vitamin D3, Min.....	100,000 IU/lb
Vitamin E, Min.....	400 IU/lb

## INGREDIENTS

Monocalcium Phosphate, Calcium Carbonate, Processed Grain By-Products, Salt, Brewers Dried Yeast, Brewers Dried Grains, Potassium Sulfate, Magnesium Sulfate, Mineral Oil, Choline Chloride, Ferrous Sulfate, Dried Cane Molasses, Copper Sulfate, Zinc Oxide, Zinc Sulfate, Zinc Amino Acid Complex, Manganous Oxide, Soybean Mill Feed, Vitamin E Supplement, Vitamin A Supplement, Folic Acid, Menadione Sodium Bisulfite Complex (source of Vitamin K activity), Calcium Pantothenate, Ferrous Amino Acid Complex, Manganese Amino Acid Complex, Selenium Yeast, Biotin, Copper Amino Acid Complex, Thiamine Mononitrate, Vitamin B12 Supplement, Pyridoxine Hydrochloride, Riboflavin Supplement, Niacin Supplement, D-Activated Animal Sterol (Source of Vitamin D3), Vitamin C, Magnesium Sulfate, Active Dry Yeast, Cobalt Carbonate, Ethylenediamine Dihydriodide, 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

HORSE NO. 9 is to be mixed in the grain ration of horses as follows:

Young Growing Horses:	50 lbs. per ton of grain ration
Active Mature Horses:	50 lbs. per ton of grain ration
Idle Mature Horses:	40 lbs. per ton of grain ration

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

NET WT 50 LB (22.7 kg)

LOT#



# AG LAND

## FESCUE HORSE NO. 9

W/G-MANNA-CEL

Mineral for horses

### GUARANTEED ANALYSIS

Calcium (Ca), Min.....	18.00%
Calcium (Ca), Max.....	20.00%
Phosphorous (P), Min.....	9.00%
Salt (NaCl), Min.....	3.00%
Salt (NaCl), Max.....	5.00%
Copper (Cu), Min.....	1,500 ppm
Iodine (I), Min.....	36 ppm
Selenium (Se), Min.....	20 ppm
Zinc (Zn), Min.....	5,500 ppm
Vitamin A, Min.....	500,000 IU/lb
Vitamin D3, Min.....	100,000 IU/lb
Vitamin E, Min.....	400 IU/lb

### INGREDIENTS

Monocalcium Phosphate, Calcium Carbonate, Processed Grain By-Products, Salt, Brewers Dried Yeast, Calcium Montmorillonite, Brewers Dried Grains, Potassium Sulfate, Magnesium Sulfate, Mineral Oil, Choline Chloride, Ferrous Sulfate, Dried Cane Molasses, Copper Sulfate, Zinc Oxide, Dried Whey, Zinc Sulfate, Zinc Amino Acid Complex, Extracted Citric Acid Presscake, Manganous Oxide, Soybean Mill Feed, Vitamin E Supplement, Vitamin A Supplement, Folic Acid, Menadione Sodium Bisulfite Complex (source of Vitamin K activity), Calcium Pantothenate, Ferrous Amino Acid Complex, Manganese Amino Acid Complex, Silicon Dioxide, Polysaccharide Complex of Zinc, Selenium Yeast, Biotin, Copper Amino Acid Complex, Thiamine Mononitrate, Vitamin B12 Supplement, Pyridoxine Hydrochloride, Riboflavin Supplement, Niacin Supplement, D-Activated Animal Sterol (Source of Vitamin D3), Vitamin C, Magnesium Sulfate, Yucca Schidegera Extract, Active Dry Yeast, Polysaccharide Complex of Iron, Cobalt Carbonate, Polysaccharide Complex of Manganese, Ethylenediamine Dihydriodide, Sugar, Calcium Aluminosilicates, Polysaccharide Complex of Copper, 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, Cobalt Glucoheptonate and Natural Flavors.

### FEEDING DIRECTIONS

FESCUE HORSE NO. 9 is to be mixed in the grain ration of horses as follows:

Young Growing Horses:	50 lbs. per ton of grain ration
Active Mature Horses:	50 lbs. per ton of grain ration
Idle Mature Horses:	40 lbs. per ton of grain ration

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

NET WT 50 LB (22.7 kg)

LOT#

# AG LAND CHAMPION

A mineral and vitamin supplement for horses

## GUARANTEED ANALYSIS

Crude Fat, Min.....	9.50%
Calcium (Ca), Min.....	9.00%
Calcium (Ca), Max.....	11.00%
Phosphorous (P), Min.....	10.00%
Salt (NaCl), Min.....	3.00%
Salt (NaCl), Max.....	4.00%
Magnesium (Mg), Min.....	0.80%
Potassium (K), Min.....	0.50%
Copper (Cu), Min.....	1,500 ppm
Iodine (I), Min.....	36 ppm
Selenium (Se), Min.....	6 ppm
Zinc (Zn), Min.....	5,100 ppm
Vitamin A, Min.....	850,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	250 IU/lb
Vitamin B 12, Min.....	2 ppm
Niacin, Min.....	1,025 ppm
Riboflavin, Min.....	470 ppm
Thiamine, Min.....	480 ppm

## INGREDIENTS

Monocalcium Phosphate, Processed Grain By-Products, Soybean Oil, Calcium Carbonate, Dried Cane Molasses, Salt, Calcium Silicate, Magnesium Oxide, Biotin, Choline Chloride, Zinc Oxide, Ferrous Sulfate, Potassium Chloride, Vitamin A Supplement, Manganous Oxide, Vitamin B12 Supplement, Copper Oxide, Calcium Pantothenate, Ferrous Amino Acid Complex, Zinc Amino Acid Complex, Vitamin E Supplement, Copper Amino Acid Complex, Manganese Amino Acid Complex, Niacin Supplement, Riboflavin Supplement, Thiamine Mononitrate, D-Activated Animal Sterol (Source of Vitamin D3), Ethoxyquin (a preservative), Active Dry Yeast, Ethylenediamine Dihydriodide, 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 Flavor.

## FEEDING DIRECTIONS

CHAMPION should be fed to show and work adult horses at a rate of up to 6 oz. per head per day. Brood Mares in the last 90 days of pregnancy and during the first three (3) months of lactation should be fed up to 6 oz. per head per day. Ponies should be fed 3 oz. per head per day.

Provide good quality hay or pasture, fresh clean water and salt free choice. CHAMPION is designed to help fortify the ration with major and trace minerals and vitamins needed for optimum horse performance.

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

NET WT 35 LB (15.9 kg)

LOT#

# AG LAND CHAMPION PLUS

Champion ration fortifier is specifically formulated to provide your horse with the essential vitamins, major minerals, and trace minerals that are vital to strong bone structure, endurance, and overall condition and health.

## GUARANTEED ANALYSIS

Crude

Protein.....	5.00%
Crude Fat.....	6.00%
Calcium (Ca), Min.....	6.00%
Calcium (Ca), Max.....	7.00%
Phosphorous (P), Min.....	6.50%
Salt (NaCl), Min.....	2.00%
Salt (NaCl), Max.....	3.00%
Vitamin A, Min UPS. units per lb.....	560,000
Vitamin D, Min UPS. units per lb.....	66,500
Vitamin E, Min IU. units per lb.....	33
Vitamin B 12, Min MGS. per lb.....	1

## INGREDIENTS

Monocalcium Phosphate, Yeast Culture, Soybean Oil, Dried Fermented Corn Extractives, Dried Solubles and Corn Distillers Dried Grains, Molasses Products, Salt, Vitamin A Acetate, Vitamin B12 Supplement, Vitamin D3 Supplement, Vitamin E Supplement, Riboflavin Supplement, Calcium Pantothenate, Niacin, Choline Chloride, Thiamine Mononitrate, Zinc, Iron, Manganese, and Copper Polysaccharide Complexes, Magnesium Oxide, Ferrous Carbonate, Copper Oxide, Iron Oxide, Zinc Oxide, Cobalt Carbonate, Calcium Iodate, Sodium Selenite, Ethoxyquin (a preservative), Calcium Silicate, Natural and Artificial Flavors.

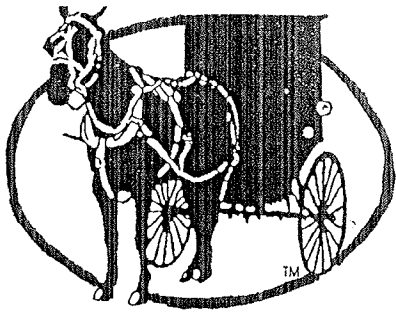
## FEEDING DIRECTIONS

<b>Adult Horses:</b>	Daily 6 oz. when preparing for show/work
<b>Ponies:</b>	Daily 3 oz.
<b>Brood Mares:</b>	Daily 6 oz. for the last 90 days of pregnancy and during the first 3 months of lactation

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

NET WT 24 LB (10.91 kg)

LOT#



# BUGGY HORSE HOOF CONDITIONER

NET WEIGHT 20 LBS.

Contains vitamins, chelated minerals, enzymes and dried fermentation products, amino acids & Phospholipids. (Biotin 20 mg.)

## GUARANTEED ANALYSIS

Crude protein not less than.....	20%	Cobalt (Co), (minimum).....	0.001%
Crude Fat, not less than.....	2.0%	Selenium (Se), (minimum).....	0.0001%
Crude Fiber, not more than.....	6.0%	Vitamin A(minimum).....	600,000 IU
Calcium (CA),(minimum).....	2.5%	VitaminD3(minimum).....	45,000 IU
Calcium (CA), (maximum).....	3.8%	Vitamin E(minimum).....	800 IU
Phosphorus (P), (minimum).....	1.0%	Niacin(minimum).....	1,000 mg
Zinc (Zn), (minimum).....	1.5%	Riboflavin(minimum).....	400 mg
Iron (Fe), (minimum).....	0.015%	Thiamine(minimum).....	200 mg
Manganese (Mn), (minimum).....	0.005%	D-pantothenic acid (minimum).....	65 mg
Copper (Cu), (minimum).....	0.150%	Vitamin B12(minimum).....	1.45 mg
Iodine (I), (minimum).....	0.003%	Biotin (minimum).....	160 mg

**Ingredients:** Processed grain by products, monosodium phosphate, cane molasses, bentonite, mineral oil, zinc proteinate, yeast culture, vitamin A supplement (BHT as preservative), soybean meal, yeast, niacin, riboflavin supplement, sodium selenite ( as a source of selenium supplement), vitamin E supplement, iron sulfate, thiamine HCl, manganese sulfate, Dicalcium pantothenate, vitamin B12 supplement, pyridoxine, choline, biotin, inositol, arginine, lysine, methionine, tryptophane, valine, glycine, lecithin, copper sulfate, D activated animal sterol (source of vitamin D3), ascorbic acid (as preservative) calcium iodate, cobalt, sulfate, natural and/ or artificial flavors added, dried Aspergillus oryzae fermentation extract, dried Bacillus subtilis fermentation extract, dried Streptococcus faceium fermentation product.

## DIRECTIONS:

HORSES THAT NEED HOOF QUALITY IMPROVEMENT:

DRAFT HORSES: 3 SCOOPS PER HEAD PER DAY.

BUGGY HORSES: 2 SCOOPS PER HEAD PER DAY.

WORKING HORSES: 2 SCOOPS PER HEAD PER DAY.

FOR THE MAXIMUM EFFECT OF *BUGGY HORSE HOOF CONDITIONER*, FEED A PALATABLE, BALANCED AND NUTRITIOUS RATION.

\*EACH SCOOP = 1 OZ.

FOR ANIMAL USE ONLY

STORE IN A COOL, DRY PLACE. THIS PRODUCT HAS A LIMITED SHELF LIFE.  
FEED WITHIN ONE YEAR OF PURCHASE.

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

Gro-Tec, Inc. will not be liable for incidental or consequential damages, including loss or partial loss of livestock from any cause.



# 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 subtilis 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 AGRIPONIN

A natural ammonia reductive environmental manager and potential growth aid when included in animal feeds

## GUARANTEED ANALYSIS

Crude Protein.....	22.50%
Crude Fiber.....	7.50%
Crude Fat.....	5.00%

## INGREDIENTS

Biologically active yucca schidigera extract, naturally occurring micro-organisms, natural ingredients and hydrobiotite.

## DIRECTIONS FOR USE

Use AGRIPONIN at recommended rate per ton of complete feed.

Swine	Pre-Starter/Starter (to 50 lbs.).....	2 lb.
	Grower/Finisher.....	1 lb.
	Breeding/Gestation and Lactation.....	1 lb.

Ruminants, Sheep, Poultry, Horse, Mink, Fish, Pet, and Specialty Feeds – Contact a GRO-TEC Sales Representative.

Lagoons or Pits	Dissolve one (1) lb. into one (1) gallon of water and distribute at one (1) gallon per 100 cubic feet of slurry.
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Registrative Number: Agriculture Canada 980428

Store in Dry Area.

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

NET WT 50 LB (22.7 kg)

LOT#

# AG LAND

## AG Bac

Microbial Concentrate Plus Enzymes

**AG Bac** is a supplemental source of microbial organisms and enzymes.

Mix **AG Bac** DryFormula with with your feed at the following rates.

### HIGH STRESS

Incoming Animals/Sick Pen

1# /Ton of Feed

### MEDIUM STRESS

Daily Ration—High Rate

$\frac{2}{3}$ #/Ton of Feed

### LOW STRESS

Daily Ration—Low Rate

$\frac{1}{3}$ #/Ton of Feed

**AG Bac** may be top dressed at  $\frac{1}{2}$  to 1 teaspoon per head per day.

### GUARANTEED ANALYSIS

Lactic Acid Producing Bacteria 180 Bil. CFU's/#

Amylase 11 Million Units/#

### ACTIVE INGREDIENTS

Dried Lactobacillus Acidophilus fermentation product. Dried Streptococcus Faecium fermentation product. Saccharomyces cerevisiae, and Kluyveromyces fragilis, grown on media of ground yellow corn, diastatic malt & cane molasses. Plus Amylase, Protease, and Cellulase enzymes.

**AG Bac** requires no withdrawal period.

**GRO-TEC, INC.**

10324 W. US HIGHWAY 36

MODOC, IN 47358

NET WEIGHT

# 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 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.

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# AG LAND HORSE 27

Mineral for horses on pasture

## GUARANTEED ANALYSIS

Calcium (Ca), Min.....	19.00%
Calcium (Ca), Max.....	21.00%
Phosphorous (P), Min.....	6.50%
Salt (NaCl), Min.....	16.00%
Salt (NaCl), Max.....	18.00%
Magnesium (Mg), Min.....	1.00%
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.....	400,000 IU/lb
Vitamin D, Min.....	140,000 IU/lb
Vitamin E, Min.....	320 IU/lb

## INGREDIENTS

Calcium Carbonate, Monocalcium Phosphate, Salt, Potassium Sulfate, Magnesium Sulfate, Dried Cane Molasses, Processed Grain By-Products, Magnesium Oxide, Potassium Chloride, Mineral Oil, Zinc Oxide, Copper Sulfate, Magnesium Limestone, Ferrous Sulfate, Manganous Oxide, Zinc Amino Acid Complex, Sodium Sesquicarbonate, Vitamin E Supplement, Vitamin A Supplement, Manganese Amino Acid Complex, Selenium Yeast, Ferrous Amino Acid Complex, D-Activated Animal Sterol (Source of Vitamin D3), Calcium Stearate, Soybean Oil, Ethylenediamine Dihydriodide, Copper Amino Acid Complex, 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

HORSE 27 should be self-fed free choice in dry, wind free, rain protected feeders. Place feeders near a water source where animals gather. Provide fresh, clean water at all times. This mineral is designed to help fortify the ration with major and trace minerals, vitamins and yeast needed for optimum horse performance.

Horses should consume HORSE 27 at the rate of 3 oz/head/day.

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**10324 W US HWY 36**  
**MODOC, IN 47358**

NET WT 50 LB (22.7 kg)

LOT#



# AG LAND

## FESCUE HORSE 27

W/G-MANNA-CEL

Mineral for horses on pasture

### GUARANTEED ANALYSIS

Calcium (Ca), Min.....	17.00%
Calcium (Ca), Max.....	19.00%
Phosphorous (P), Min.....	6.00%
Salt (NaCl), Min.....	16.00%
Salt (NaCl), Max.....	18.00%
Magnesium (Mg), Min.....	1.00%
Potassium (K), Min.....	1.00%
Copper (Cu), Min.....	1,250 ppm
Iodine (I), Min.....	125 ppm
Selenium (Se), Min.....	25 ppm
Zinc (Zn), Min.....	4,000 ppm
Vitamin A, Min.....	300,000 IU/lb
Vitamin D, Min.....	100,000 IU/lb
Vitamin E, Min.....	250 IU/lb

### INGREDIENTS

Calcium Carbonate, Monocalcium Phosphate, Salt, Processed Grain By-Products, Dried Cane Molasses, Calcium Montmorillonite, Brewers Dried Yeast, Potassium Sulfate, Magnesium Sulfate, Potassium Chloride, Magnesium Oxide, Ferrous Sulfate, Mineral Oil, Copper Sulfate, Dried Whey, Zinc Oxide, Zinc Sulfate, Zinc Amino Acid Complex, Manganous Oxide, Sodium Sesquicarbonate, Menadione Bisulfite Complex (source of Vitamin K), Ferrous Amino Acid Complex, Vitamin E Supplement, Vitamin A Supplement, Manganese Amino Acid Complex, Selenium Yeast, Extracted Citric Acid Presscake, Copper Amino Acid Complex, Calcium Stearate, D-Activated Animal Sterol (Source of Vitamin D3), Silicon Dioxide, Yucca Schidegera Extract, Ethylenediamine Dihydriodide, Active Dry Yeast, Cobalt Carbonate, Aluminum Calcium Silicate, Brewers Dried Grains, Niacin Supplement, Vitamin B12 Supplement, Calcium Pantothenate, Riboflavin Supplement, 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, Biotin, Thiamine Mononitrate, Artificial and Natural Flavors.

### FEEDING DIRECTIONS

FESCUE HORSE 27 should be self-fed free choice in dry, wind free, rain protected feeders. Place feeders near a water source where animals gather. Provide fresh, clean water at all times. This mineral is designed to help fortify the ration with major and trace minerals, vitamins and yeast needed for optimum horse performance.

Horses should consume FESCUE HORSE 27 at the rate of 4 oz/head/day.

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

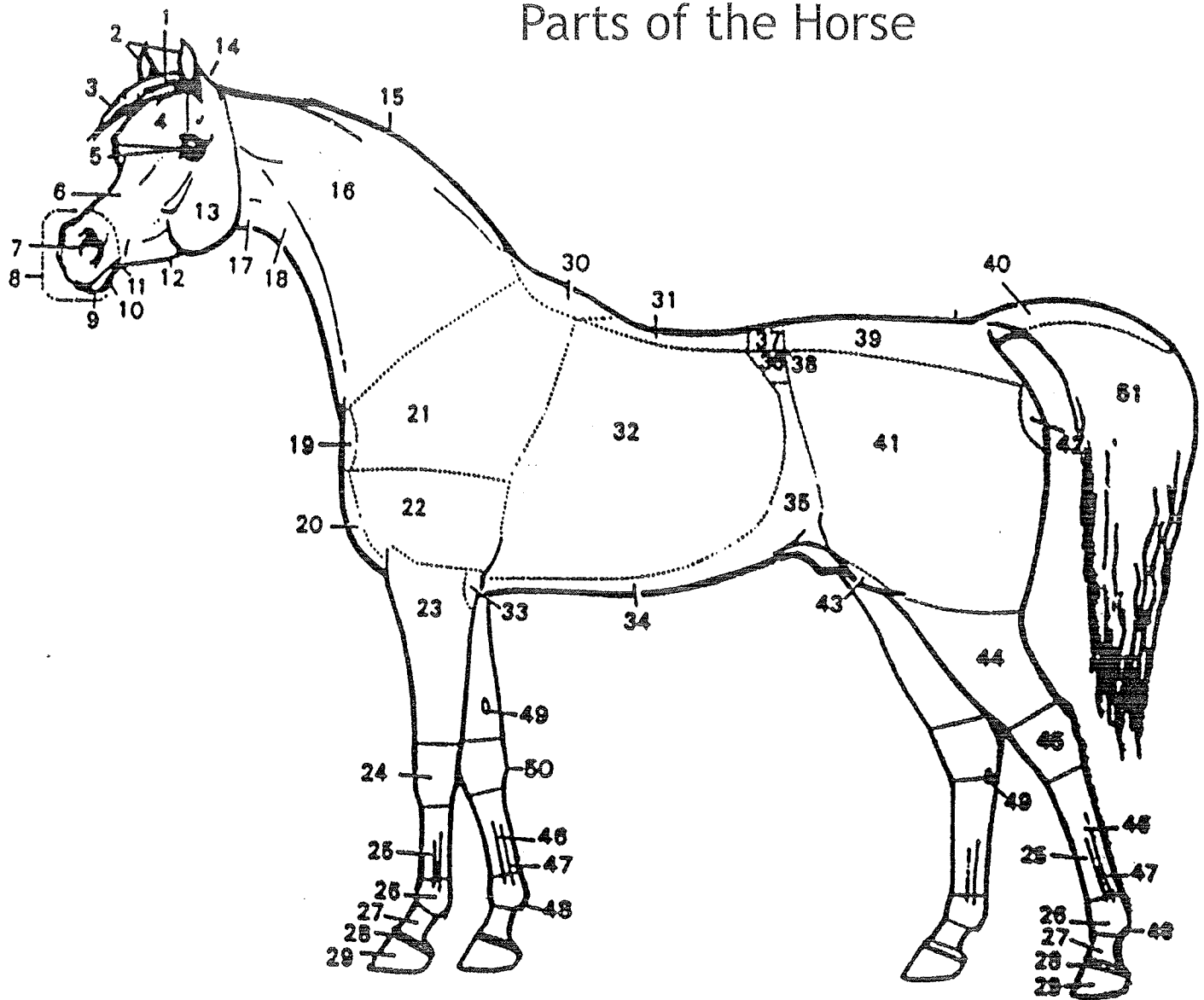
NET WT 50 LB (22.7 kg)

LOT#

## Vitamin - Mineral Functions

Nutrient	How Utilized
Vitamin A	Eye Health, Reproduction, Respiratory System.
Vitamin B	Bone Calcification, Joint Development.
Vitamin E	Reproduction, Prevents Muscle Degeneration.
Vitamin K	Maintains normal blood clotting time.
Vitamin B12	Corrects Anemia symptoms.
Vitamin C	Reproductive Performance.
Niacin	Carbohydrate Utilization.
Pantothenic Acid	Reproduction, Coordination.
Riboflavin	Maintains Eye tissue, Hair, and Skin.
Thiamin	Maintains peak food consumption.
Choline	Liver and Kidney function, coordination.
Calcium	Bone Growth and Maintenance, Blood Clotting.
Phosphorus	Bone growth and Maintenance, Reproduction.
Cobalt	Vitamin B12 synthesis.
Magnesium	Mental Health, Maintains Joints.
Sulfur	Bacterial Synthesis of vitamins and Amino Acids.
Potassium	Feed efficiency, Cardiac Health, Appetite.
Iodine	Hemoglobin Formation.
Zinc	Reproduction.
Manganese	Soundness of Limbs, Reproduction.
Iron	Fertility.
Copper	Cartilage, Growth, Hemoglobin Formation.
Selenium	Prevents Muscular Degeneration, Reproduction.
Lysine	Essential Amino Acids.
Sodium	Regulates amounts of body fluids.

# Parts of the Horse



1. Occipital Crest
2. Ear
3. Forelock
4. Forehead
5. Eye
6. Nose
7. Nostril
8. Muzzle
9. Lower Lip
10. Chin
11. Chin Groove
12. Branches of Jaw
13. Jowl or Cheek
14. Poll
15. Crest
16. Neck
17. Throatlatch
18. Jugular Groove
19. Point of Shoulder

20. Chest
21. Shoulders
22. Upper Arm
23. Forearm
24. Knee
25. Cannon
26. Fetlock Joint
27. Pastern
28. Coronet
29. Hoof
30. Withers
31. Back
32. Ribs
33. Elbow
34. Belly
35. Flank
36. Coupling
37. Loin
38. Point of Hip

39. Croup
40. Dock
41. Thigh
42. Buttocks
43. Stifle
44. Gaskin
45. Hock
46. Suspensory Ligament
47. Flexor Tendon
48. Fetlock
49. Chestnut or Callosity
50. Trapezium
51. Tail