AG LAND'S SHEEP PROGRAM

AG LAND SHEEP PREMIXES are made specifically to meet requirements of lambs, ewes, and rams. They are successfully used and recommended by leading livestock producers.

AG LAND SHEEP PREMIXES are highly concentrated sources of nutrients designed especially to balance sheep rations. They are blends of only the highest quality vitamins, minerals, trace elements and are not made with bulky fillers.

BREEDING

The practice of flushing ewes two to three weeks prior to breeding is essential in increasing the number of ova in mature ewes and those in their condition. Be sure to worm rams and ewes at least two weeks before the breeding season starts. This will help assure an improvement in body condition before breeding.

RATION #1: AG LAND Breeding Flock Grain Mix

Feed ½ to ¾ # per head per day

Grain (cracked or crimped corn, milo,	
wheat, barley, oats)	1645
Soybean meal	300
Gro-Tec Yeast	5
Sheep Premix or Sheep Premix/Bovatec	50
-	2000#

LAMBS

Creep feeding lambs will provide supplemental feed for lambs during the nursing phase. Creep feeding is essential for early weaning and has several advantages:

- It increases gains
- Lamb can be marketed at an early age
- A healthier lamb crop
- It will increase the carrying capacity of your pasture
- Young lambs use supplemental feeds more efficiently

RATION #2: AG LAND'S 21% Protein Lamb Creep Feed

Corn (cracked or course)*	745
Soybean Meal	600
17% Alfalfa Meal	590
Sheep Premix	50
AgLac	5
White Salt	5
Gro-Tec Yeast	4
CTC 50	1
	2000#

^{*}Rolled or ground oats may replace ½ of the corn. This formula may be used until lambs are weaned and weigh approximately 45 pounds. High quality alfalfa hay may also be fed on the side.

WEANED AND FINISHING LAMB

Start a feeding program that has:

- Complete feeds with 50% roughage that is decreased in 5% increments every 10 to 14 days until minimum 25% of roughage is fed until market. Use Ag Land's Sheep Premix/Bovatec at the rate of 25 pounds per ton of complete feed.
- High quality legume hay free choice. Start with ¼ pound of finishing lamb grain mixture per head daily and increase ¼ pound per head daily until equal amounts of grain and hay are fed. Decrease hay and increase grain every 10 to 14 days. Use Ag Land's Sheep Premix/Bovatec at the rate of 50 pounds per ton of Finishing Lamb Grain Mixture until more grain than hay is fed. Then, reduce the Ag Land's Sheep Premix/Bovatec to 25 pound per ton of the grain mixture.

RATION #3: Complete Lamb Finishing Feed

Cracked Grain (corn, milo, barley, etc.)	1215
Soybean meal	250
Gro-Tec Yeast	5
Alfalfa (meal, ground, pellets or longstemmed)	500
Sheep Premix or Sheep Premix/Bovatec	25
White Salt	5
	2000#

FINISHING LAMB

Lambs finished on pasture won't require a roughage source of the grain mixture. Lambs will consume about half of their feed as pasture and half as grain mixture if both are palatable and abundant. Worm pasture lambs every 4 to 6 weeks to control internal parasites.

RATION #4: AG LAND'S Finishing Lamb Grain Mixture

Cracked Grain (corn, milo, barley, etc.)	1435
Soybean meal	500
Sheep Premix or Sheep Premix/Bovatec	50
Gro-Tec Yeast	5
White Salt	10
	2000#

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)

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 ½ 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 <u>chelated minerals</u>.
- Totally released in small intestine by pancreatin enzymes.
- Higher blood levels than other traces (2X sulfates, 4X oxides)

G-MANNA-CEL

For the manufacture of livestock feeds

GUARANTEED ANALYSIS

Crude Protein, Min
Crude Protein, Win20.0070
Crude Fat, Min
Crude Fiber, Max
Niacin, Min
Pantothenate, Min90 ppm
Riboflavin, Min

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	
Growers	4 lbs/per ton
Swine:	
Starters	8 lbs/per ton
Growers	4 lbs/per ton
Poultry:	
Layers	
Broilers	2-8 lbs/per ton
Sheep/Goats:	4-10 lbs/per ton

AG LAND SHEEP PREMIX/BOVATEC®

MEDICATED

Mineral for sheep

For the prevention of coccidiosis caused by *Eimera ovina*, *Eimera crandallis*, *Eimeria ovinoidalis* (*Eimeria ninakohlyakimovae*), *Eimeria parva* and *Eimeria intricate* in sheep.

ACTIVE INGREDIENT

Lasalocid as (Lasalocid Sodium)	1400 G/Ton
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GUARANTEED ANALYSIS

Calcium (Ca), Min.	15.00%
Calcium (Ca), Min	17.00%
Phosphorous (P), Min	8.00%
Salt (NaCl), Min	18.00%
Salt (NaCl), Max	22.00%
Cobalt (Co), Min.	130 ppm
Iodine (I), Min	150 ppm
Iron (Fe), Min	1,500 ppm
Manganese (Mn), Min	1,500 ppm
Selenium (Se), Min	35 ppm
Zinc (Zn), Min	3,000 ppm
Vitamin A, Min	400,000 IU/lb
Vitamin D, Min	100,000 IU/lb
Vitamin E, Min	350 IU/lb

INGREDIENTS

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

FEEDING DIRECTIONS

Feed SHEEP PREMIX/BOVATEC® free choice in covered, rain free feeders to sheep in pasture or dry lot. Consumption should be 1-2 ounces per head per day to provide 40 to 80 mg of Lasalocid per head per day.

CAUTION: The addition of higher levels of this premix to feeds containing Selenium is not permitted.

AG LAND SHEEP PREMIX

Mineral for sheep

GUARANTEED ANALYSIS

Calcium (Ca), Min	15.00%
Calcium (Ca), Max	17.00%
Phosphorous (P), Min.	8.00%
Salt (NaCl), Min	18.00%
Salt (NaCl), Max	22.00%
Cobalt (Co), Min	130 ppm
Iodine (I), Min	150 ppm
Iron (Fe), Min	
Manganese (Mn), Min	1,500 ppm
Selenium (Se), Min	35 ppm
Zinc (Zn), Min	
Vitamin A, Min	
Vitamin D, Min	100,000 IU/lb
Vitamin E, Min	

INGREDIENTS

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

FEEDING DIRECTIONS

Feed SHEEP PREMIX free choice in covered, rain free feeders to sheep in pasture or dry lot. Mineral consumption levels will vary depending on the mineral status of the animals but should be 0.7 ounces per head per day. SHEEP PREMIX may also be mixed at the rate of 50 pounds per ton of complete feed.

CAUTION: The addition of higher levels of this premix to feeds containing Selenium is not permitted.

AG LAND MAGNA GOAT MINERAL

Mineral and vitamin supplement for goats

GUARANTEED ANALYSIS

Calcium (Ca), Min	15.00%
Calcium (Ca), Max	17.00%
Phosphorous (P), Min	8.00%
Salt (NaCl), Min	10.00%
Salt (NaCl), Max	
Magnesium (Mg), Min	
Potassium (K), Min	1.70%
Potassium (K), Min	1.50%
Cobalt (Co), Min	240 ppm
Copper (Cu), Min	800 ppm
Copper (Cu), Max	850 ppm
Iodine (I), Min	450 ppm
Iron (Fe), Min	12,500 ppm
Manganese (Mn), Min	12,500 ppm
Selenium (Se), Min	
Zinc (Zn), Min	12,500 ppm
Vitamin A, Min	350,000 IU/lb
Vitamin D3, Min	50,000 IU/lb
Vitamin E, Min	500 IU/lb

INGREDIENTS

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

FEEDING DIRECTIONS

MAGNA GOAT MINERAL may be fed free choice as the sole free choice mineral/vitamin source. Mineral consumption levels will vary depending on the mineral status of the animals but should be 0.5 oz. per head per day. Locate mineral feeders near a clean fresh source of water. MAGNA GOAT MINERAL may be mixed in the total ration at the rate of 8 to 10 lbs. per ton.

WARNING: DO NOT FEED TO SHEEP.

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.	

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	
	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.

Registrative Number:

Agriculture Canada 980428

Store in Dry Area.

AG LAND AG BAC

MICROBIAL CONCENTRATE PLUS ENZYMES

AG BAC is a supplemental source of microbial organisms and enzymes

GUARANTEED ANALYSIS

Lactic Acid Producing Bacteria	180 Billion CFU's/#
Amylase	11 Million Units/#

INGREDIENTS

Dried Lactobacillus acidophilus Fermentation Product, Dried Streptococcus Faecium Fermentation Product, Saccharomyces Cerevisiae grown on media of ground yellow corn, Diastatic Malt and Cane Molasses, Plus Amylase, Protease, and Cellulase Enzymes.

FEEDING DIRECTIONS

Mix AG BAC Dry Formula with your feed at the following rates:

High Stress	1#/ton of feed
Incoming Animals/Sick Pen Medium Stress	
Daily Ration – High Rate Low Stress Daily Ration – Low Rate	1/3#/ton of feed

AG BAC may be top dressed at ½ to 1 teaspoon per head per day.

AG BAC requires no withdrawal period.

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	

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 Aspergillius 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 DIRECT	IONS FOR COMPLETE FEEDS
Cattle	Calves and Incoming Cattle10 lbs./ton
	Beef, Dairy and Feedlot Cattle
Horses	Creep
	Maintenance and Work
Poultry and Turkeys	5 lbs./ton
Swine	Starter, Grower, Finisher, Gestation5 lbs./ton
	Lactation
Sheep	5 lbs./ton

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

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	
Saccharomyces Cervisiae, Min	

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

AG LAND HAY TREAT 21

GUARANTEED ANALYSIS

INGREDIENTS

Calcium Carbonate, Dextrose, Iron Oxide, Cobalt Carbonate, Lactobacillus Plantarum Fermentation Product Dehydrated, Pediococcus Pentosaceous 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.

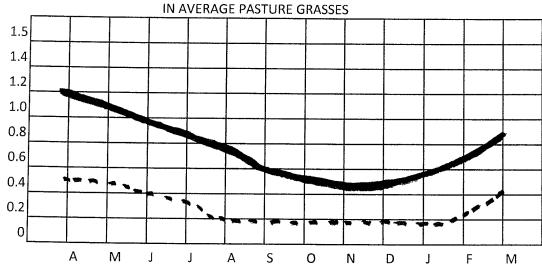
COMMON SOURCES OF CALCIUM & PHOSPHORUS

SOURCE

PERCENTAGE OF ELEMENT Calcium Phosphorus

Limestone	38	ı
Calcite Grit	34	ı
Oyster Shell	38	1
Dicalcium Phosphate	24 - 26	18 - 22
Dicalcium-Moncalcium Phosphates	15 - 23	18.5 - 23
Ammonium Phosphates	ſ	20 - 24
Defluorinated Phosphates	30 - 36	14 - 18
Sodium Phosphates	í	25 - 26
Phosphoric Acid	I	23 - 24
Bone Meal, Steamed	23 - 36	8 - 18
Fish Meals	2 - 14	2 - 7
Meat & Bone Meals	4 - 14	2 - 7.5

GRAPH 1. VARIABILITY OF CALCIUM AND PHOSPHORUS

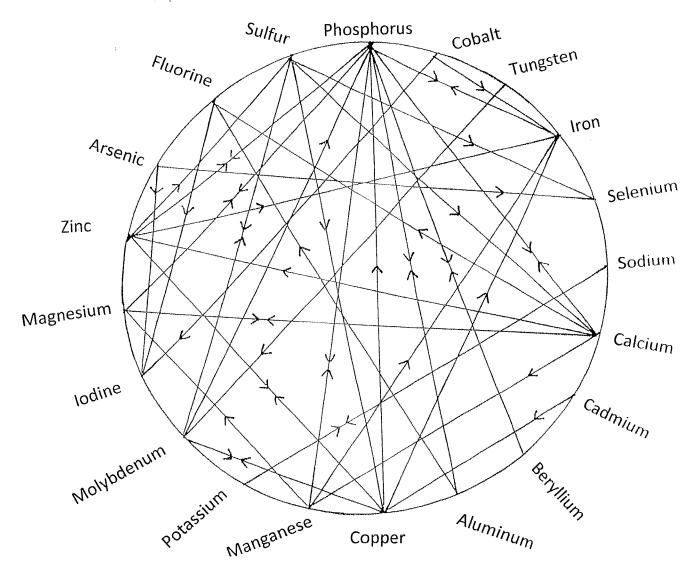


Solid Line = Calcium

Dashed Line = Phosphorus

Similar variations can be expected to occur for magnesium, potassium, sulfur, manganese, and other trace minerals.

See your Gro-Tec, Inc. representative so forage samples can be tested and a ration determined with the appropriate Ag Land Stocker Premixes to satisfy the feed cow's nutritional requirements.



GRO-TEC SELENIUM E

Mineral and vitamin premix for livestock feeds

GUARANTEED ANALYSIS

Calcium (Ca), Min	24.00%
Calcium (Ca), Max	
Selenium (Se), Min	
Vitamin E, Min	

INGREDIENTS

Calcium Carbonate, Corn Distillers Dried Grains with Solubles, Vitamin E Supplement, Sodium Selenite.

FEEDING DIRECTIONS

SWINE: Do not exceed 272 mg. or three (3) lbs. of GRO-TEC SELENIUM E per ton of complete feed.

MIXING DIRECTIONS

	Total Dry Matter Per Day	GRO-TEC SELENIUM E Per Ton of Dry Matter	MG Per Head Per Day
DAIRY	20 lbs. 30 lbs.	3 lbs. 3 lbs.	2.72 4.08
	40 lbs. 50 lbs.	3 lbs. 3 lbs.	5.44 6.80
BEEF	5 lbs. 10 lbs. 15 lbs.	3 lbs. 3 lbs. 3 lbs.	0.68 1.36 2.04
	20 lbs.	3 lbs.	2.72

NOTE: Do not exceed 3 mg. per head per day for Beef Cattle.