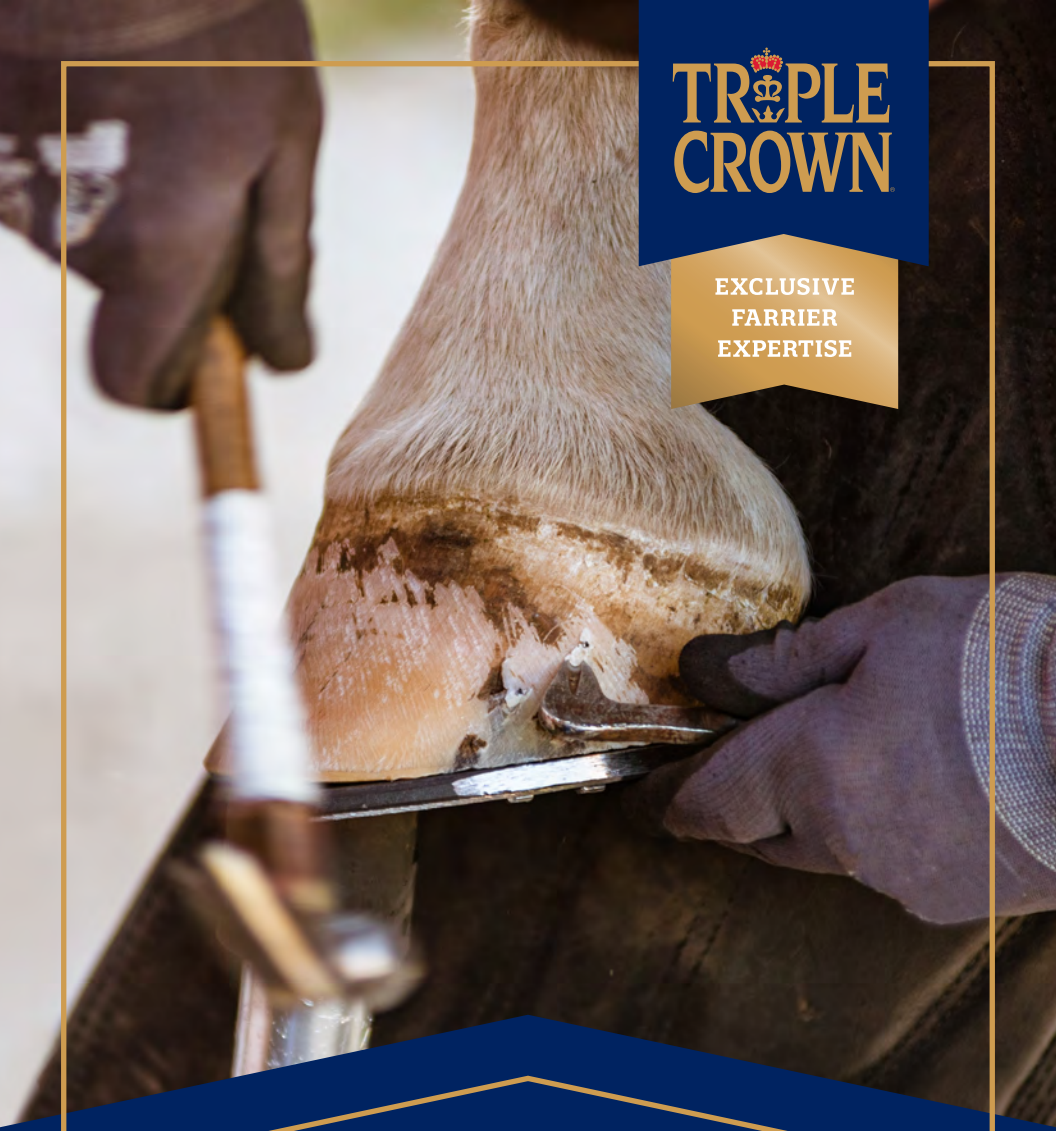

TRIPLE CROWN

EXCLUSIVE FARRIER EXPERTISE

NUTRITION FOR FOOT HEALTH

Building a better foot through better nutrition

NUTRITION
BEYOND
COMPARE

QUICK CODE KEY

EP	Extruded Pelleted Form		GMO Free
P	Pelleted Form		Soybean Free
BP	Textured Form		Contains EquiMix®

At Triple Crown, we understand that identifying the best horse feed isn't exactly easy. So to help farriers make the right recommendation to their clients, and even the right choice for their own horses, we created this handy guide to Triple Crown's entire line of super premium feeds, forages and supplements.

What is it that makes Triple Crown feeds so elite? Maybe it's the fact that each of our products is corn free and features fixed formulas so you know you are getting the same high quality ingredients in every bag. Or that we continue to incorporate the latest advancements in equine nutrition in order to improve the health and wellbeing of your horse.

Triple Crown will never settle for anything less than offering the absolute best, most nutritionally advanced horse feed on the market— for nutrition that goes beyond expectations.

THAT'S OUR PROMISE TO YOU.

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Horse Feed and Feeding References

Supporting Research & Technical Papers

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NUTRITION GUIDELINES FOR CLINICAL DISORDERS

Equine Metabolic Syndrome and Equine Cushing's Disease
Horses affected with Equine Cushing's Disease (ECD) may be insulin resistant with elevated blood glucose and/or blood insulin levels. Feed a low soluble carbohydrate (starch + ethanol soluble carbohydrates (ESC)) diet fortified with high levels of antioxidants (Vitamin E, C and organic selenium) to horses with ECD and Equine Metabolic Syndrome (EMS) to support immune system function, especially for ECD horses.

Supplementing with magnesium (2g per 100 lb. of body weight) and chromium (1mg per 100 lb. of body weight) for horses exhibiting severe insulin resistance is recommended. A diet with less than 20% soluble carbohydrate content (starch + ESC) in both hay and horse feed is recommended. A dietary soluble carbohydrate content of less than 10% for very sensitive cases where laminitis is severe has also been followed with some success. Horses with insulin resistance, chronic laminitis and obesity should be kept off lush pastures, muzzled while on pasture or managed with limited hay in a dry lot. Routine exercise and turnout are essential recommendations, as they will help to decrease insulin resistance and normalize blood glucose and insulin levels.

RECOMMENDED PRODUCTS: Triple Crown Low Starch, Senior Gold/Senior Active+, Balancer/Balancer Gold, Lite and Safe Starch Fortified Forage; Balancer/Balancer Gold and Lite for obese horses, ponies, miniature horses and easy keeper horse breeds

Gastric Ulcers
Higher intensity levels of training and competition are correlated with an increase in the incidence of ulcers. Horses suffering from ulcers should be treated immediately. Allowing turn out and grazing 24 hours a day will help to alleviate ulcers as stress levels will be reduced and increased saliva production will help reduce stomach acidity and prevent further damage. The fermentation of fat and fiber will not

produce lactic acid. Selecting a horse feed with high levels of fat and digestible fiber and low levels of soluble carbohydrates will reduce fermentation and acid production in the stomach and small intestine where ulcers form.

Providing enough hay is important to insure adequate salivary bicarbonate to buffer stomach acidity. Feeding a daily buffer or antacid product may be required to maintain an ulcer-free condition. Alfalfa or a legume\grass mixed hay may be preferred due to the higher calcium content and potential stomach buffering capacity. Increasing the frequency of feeding can be helpful in keeping stomach pH less acidic with more constant saliva production and the dilution effect of a more consistently full stomach.

StressFree Forage is an ideal supplement to use support normal digestive health in mature horses prone to gastric and colonic ulcers. StressFree is a revolutionary feed supplement that promotes gastric health by using a multiple nutrient-based approach for the health of the entire digestive tract. Chopped alfalfa hay provides a buffering effect for horses on or off pharmacological treatments. Mannan oligosaccharides (MOS) naturally stimulate immune function, while Omega-3 fatty acids reduce intestinal cell inflammation. L-Carnitine, an amino acid recommended by veterinarians to increase nutrient metabolism, improves cellular repair.

RECOMMENDED PRODUCTS: Triple Crown Low Starch, Senior/Senior Gold/Senior Active+, Perform Gold, Complete, Alfalfa Forage Blend and StressFree Fortified Forage

Insulin Resistance
Insulin Resistance (IR) is the failure of body tissues to respond as expected to the hormone insulin. A hormone secreted by the pancreas, insulin is released when blood sugar (glucose) is high, such as after a eating, to stimulate the uptake of glucose by tissues and maintain proper levels of glucose in the body. Certain cells, like those in muscle and fat, are incredibly dependent on insulin to usher in glucose to fuel body processes. Insulin resistance occurs when the cells become less sensitive to insulin, thereby limiting the uptake of glucose.

When insulin resistance is severe enough, glucose accumulates in the blood, thus limiting the availability of energy to cells. Most at risk are "easy keeping" breeds and those prone to being overweight: ponies, minis, Morgans, Mustangs, Arabs, and draft breeds.

Some of the signs of insulin resistance include rapid and/or continuous weight gain, unusual fat deposits on the crest, shoulders, withers, croup, and base of tail, and/or an undetermined case of laminitis.

How do you manage a horse with IR? Daily exercise is a good starting point if laminitis is not an issue. Ideally, 30 minutes each day will help with weight loss in conjunction with a review of the horse's diet. The diet may need to be altered to reduce soluble carbohydrates by eliminating grains and high sugar feeds. Hay should be tested to determine nonstructural carbohydrates levels. If the sugar content of hay is unknown, the hay can be soaked in hot water for 30 minutes or cold water for 60 minutes to remove some of the sugar (drain water before feeding).

A base diet low in sugar and starch and good quality hay is usually a safe place to begin. Whether or not horses diagnosed with insulin resistance should have access to pasture needs to be evaluated on an individual basis. Some horses with a history of laminitis are restricted from pasture entirely, while others wear a grazing muzzle so that intake/consumption is restricted.

RECOMMENDED PRODUCTS: Triple Crown Balancer/Balancer Gold, Lite, Safe Starch Fortified Forage and Timothy Balance Cubes

Laminitis (Dietary-Related) and Colic

Control soluble carbohydrate intake and provide additional calories from fat and digestible fiber sources. Limit pasture consumption during spring and fall seasons due to high levels of plant starches and sugars (especially fructans in cool season grasses). Avoid small grain hays and pastures (oat, rye, wheat and barley) and fescue due to greater sugar content than other cool-season grasses (Timothy, orchard grass, and Bermuda grass), alfalfa and grass/alfalfa mixed hay.

RECOMMENDED PRODUCTS: Triple Crown Safe Starch Fortified Forage and Senior Gold/Senior Active+ for horses with a history of chronic colic and/or laminitis. Triple Crown Balancer and Lite for horses with excessive body condition or easy keepers, and Senior Gold/Senior Active+ for older horses (>20 years of age)

Leaky Gut Syndrome
Leaky Gut Syndrome (LGS) occurs when the lining of the gastrointestinal (GI) tract is compromised, allowing harmful pathogens or toxins to cross the intestinal barrier and be absorbed into the bloodstream. A "leak" into the bloodstream will cause intestinal inflammation, resulting in various systemic problems for your horse. These leaks often start slowly, but with time can result in a wide variety of health and performance issues you see every day in your horse:

- Change in behavior or personality
- Not performing at previous or expected level
- Weight loss
- Chronic or recurrent colic
- Laminitis

Common environmental and situational stressors – ranging from pathogens and parasites to hay/diet changes, performance and trailering – can all lead to LGS. Stress can result in damage to the tight junctions of the intestinal lining that are an important barrier between toxic intestinal contents and the bloodstream.

The best way to prevent LGS or help to heal a leaky gut is through good nutrition and attention to gut health. Feeding nutrients that support gut health will help mitigate the everyday "slow leak" and improve your horse's health and wellbeing.

Kemin® created its multi-faceted Gut Health Triple Check approach to provide a broad platform of solutions that clean up contaminants in feed and water, build up intestinal strength and immune system to reduce LGS, and knock out harmful pathogens for a healthier horse, featuring:

- ButiPEARL® Z EQ: a combined organic acid and nutrient that promotes intestinal barrier strength
- CLOSTAT®: contains a proprietary, patented strain of Bacillus subtilis PB6– a unique, naturally-occurring probiotic that inhibits pathogen growth and restores microbial balance

RECOMMENDED PRODUCTS: Any Triple Crown feed, Safe Starch Fortified Forage and StressFree Fortified Forage

Polysaccharide Storage Myopathy (PSSM)
PSSM is an inherited autosomal dominant metabolic muscle problem that is found in many horse breeds. Horses with PSSM have symptoms including exertional rhabdomyolysis or tying up, muscle tremors and gait abnormalities. A genetic mutation causes unregulated and excessive glycogen formation in the muscle of horse with Type-1 PSSM. This mutation is in a gene called GYS1 and it is responsible for the accumulation of excess glycogen in muscle cells and symptoms of PSSM in affected horses. Type-1 PSSM occurs in Quarter Horse, Paint,Appaloosa, Morgan, Tennessee Walker, draft purebreds and crosses, and a small percentage of warm blood breeds. Type-2 PSSM is the form of tying up disease that affects most warm blood breeds, Arabians, Thoroughbreds and Standardbreds. The cause for Type-2 PSSM has not been discovered, but is also due to a genetic mutation or defect.

A genetic test for diagnosis of Type-1 PSSM is available using a hair root or blood sample for horse breeds known to have the GSY1 mutation. A muscle biopsy test can also be used for diagnosis of PSSM, and further genetic testing will determine if it is Type-1 or Type-2. Both types of PSSM cause symptoms which include elevated blood serum levels of aspartate aminotransferase (AST) and creatine kinase (CK) enzymes, muscle stiffness and cramping, myoglobinuria, sweating and increased heart rate when exercised (all symptoms of exertional rhabdomyolysis), profuse sweating, muscle tremors, poor performance, difficulty in backing, hind limb weakness and abnormal gait. Horses affected with Type-1 PSSM respond well to a low starch diet. When selecting an appropriate feed for horses with PSSM, the levels of starch and ethanol soluble

carbohydrate (ESC) values can be used to determine if the soluble carbohydrate levels are low enough to help alleviate Type 1 PSSM symptoms in an affected horse.

Select a feed with less than 18% starch plus ESC for horses with Type-1 PSSM. Horses affected with Type-2 PSSM also respond to a low soluble carbohydrate diet, but results are not as consistent. Use the same feed selection guidelines for Type-2 PSSM horses as for Type-1. Also consider adding more vegetable oil (lowers glycemic response) and using nutritional calming agents (Magnesium Oxide or Thiamine) if symptoms in Type-2 PSSM horses do not totally subside. Because of the additional calories provided by vegetable oil, the feeding rate may be so reduced (less than 4 lb. daily) that a supplement pellet with a lower feeding rate and greater nutrient density (Triple Crown Lite or Balancer) may be required to meet the vitamin and mineral requirements due to the low rate of concentrate provided due to the large amount of oil or other fat source that is fed.

RECOMMENDED PRODUCTS: Triple Crown Senior/Senior Gold/Senior Active+, Low Starch, Lite, Balancer, Safe Starch Fortified Forage, Ground Golden Flax and Essential Omega Blend

TRIPLE CROWN®

FEEDING SITUATION AND SOLUTION CHART

FEEDING SITUATION
Allergies to Molasses, Corn, Oats, Barley, Alfalfa
Founder/Laminitis
Ulcers: Colonic/Gastric
Miniature Horses & Ponies
HYPP (Hyperkalemic Periodic Paralysis)
Rescue/Starved Horse
Tying Up Disease (PSSM/RER/MFM)*
ROA/COPD (Heaves)
Weanling to Yearling with Physitis (4-12 months)
Weanling to Yearling, Broodmares
Cushing's Disease/Insulin Resistance/Metabolic Syndrome*
Obese Horse/Easy Keeper
Thin Horse/Hard Keeper/Performance Horse
GMO Free
No Soybean

** High fat products may not be suitable for all horses with certain conditions. Call 800-451-9916 for specific help with individual cases.*

U - Great choice for Underweight Horses

O - Great choice for Overweight Horses

NOTE: Please refer to Digestible Energy Values chart on page 55 when multiple products apply.

TRIPLE CROWN

Digestive health and gut function play an essential role in horse health. That's why EquiMix, found only in Triple Crown products, is the core of all our horse feed formulas. EquiMix helps improve digestion by focusing on the stability of the microbiome while optimizing immune function and enhancing nutrient absorption in order to help build a strong foot, from the inside out.

AT A GLANCE

ButiPEARL Z EQ: The combination of zinc and butyric acid strengthens the lining of the gut, leading to improved nutrient absorption and a stronger barrier against pathogens, parasites and toxins.

Direct-Fed Microbials (Probiotics): Supplementation of digestive bacteria helps reduce digestive upsets during periods of stress—now featuring a patented strain of Bacillis subtilis to help protect against equine pathogens such as Clostridia and Salmonella.

Yeast Cultures (Prebiotics and Probiotics): A combination of live yeast cultures and yeast metabolites help maintain a healthy microbial population and stable pH to improve forage fermentation

Mannan Oligosaccharide/MOS (Prebiotic): MOS is a derivative of the yeast cell wall and helps protect against pathogenic bacteria, like E. coli and Salmonella, from challenging the digestive system

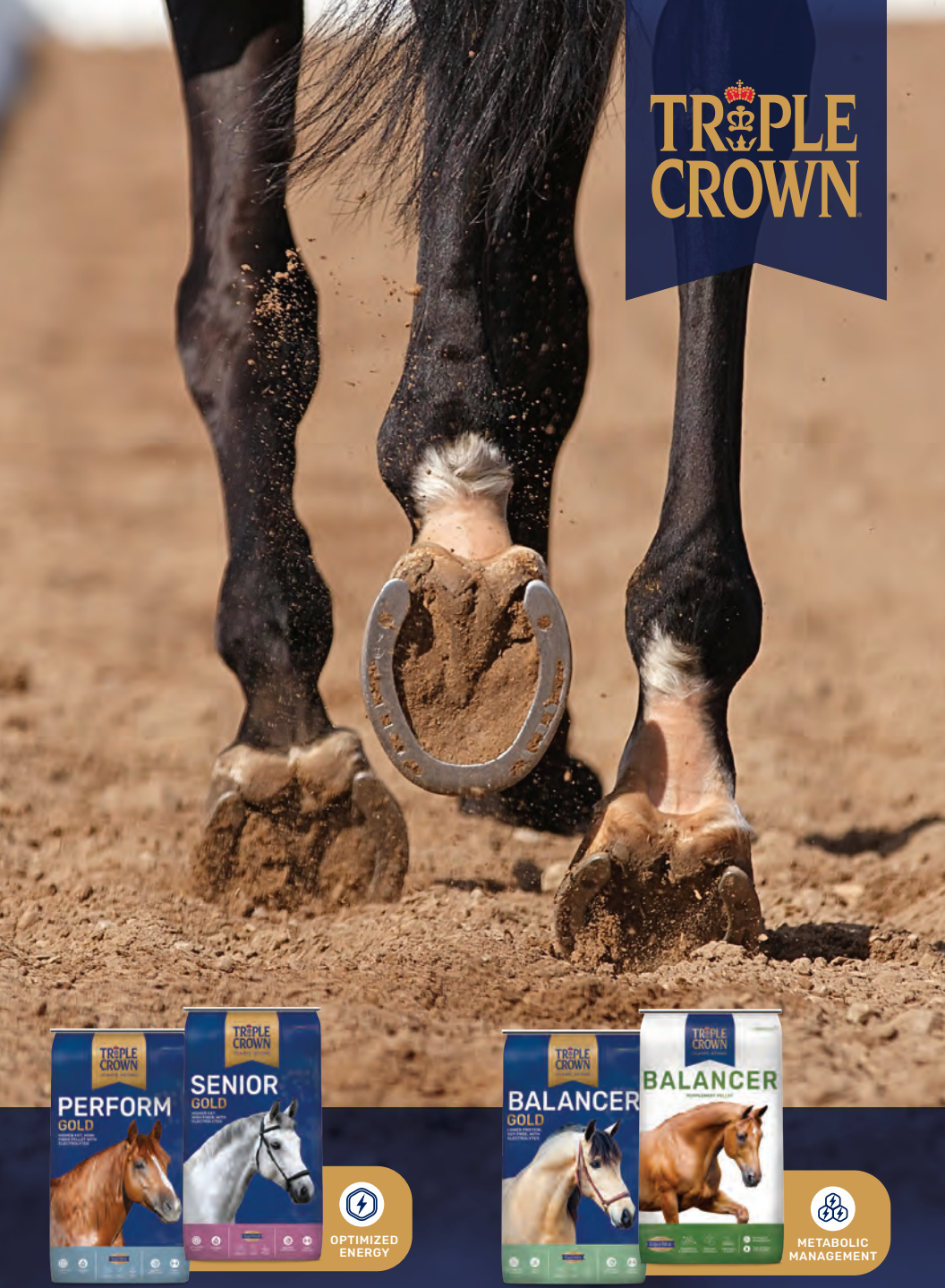
Mycotoxin Prevention: Mycotoxins are toxins created when normal fungus or mold on plants are stressed by weather or storage. University research indicates that as much as 80% of hay may contain some level of toxins. Triple Crown uses technology derived from the yeast cell wall that chemically bonds with mycotoxins which are excreted and thereby not absorbed into the bloodstream, resulting in a healthy intestinal environment.

Lysolecithin: Improves digestibility of fat by breaking up energy-rich fat sources into smaller droplets. By increasing the surface area, fats are more easily absorbed.

Seven Organic Minerals: Improves absorption and avoids interactions with other minerals. Balance and bioavailability play a critical role in metabolic functions.

Digestive Enzymes: Help maximize digestion and absorption of fats, protein, carbohydrates and minerals in the small intestine.

Three Micro Nutrients: Via kelp meal, a natural source of organic minerals boron, chromium and vanadium, aid in structural soundness and improve protein and energy utilization.



NOW WITH CHROMIUM!

VISIT TRIPLECROWNFEED.COM OR CALL 1.800.451.9916 TO LEARN MORE

TRIPLE CROWN®

PERFORM GOLD

12.5% Protein • 12% Fat • 15% Fiber • 1,800 KCAL/lb.

IDEAL FOR: Performance horses and hard keepers

Guaranteed Analysis:

Crude Protein (min.)	12.50%
Lysine (min.)	0.80%
Methionine (min.)	0.28%
Threonine (min.)	0.55%
Tryptophan (min.)	0.20%
Leucine (min.)	0.90%
Crude Fat (min.)	12.00%
Crude Fiber (max.)	15.00%
ADF (max.)	19.00%
NDF (max.)	34.00%
Calcium (min./max.)	0.90/1.40%
Phosphorus (min.)	0.60%
Magnesium (min.)	0.45%
Potassium (min.)	1.00%
Sodium (min./max.)	0.50/0.75%
Chloride (min.)	0.45%
Salt (min./max.)	0.35/0.75%
Omega-3 Fatty Acids (min.)	1.30%
Omega-6 Fatty Acids (min.)	3.50%
Selenium (min./max.)	0.50/1.00 ppm
Zinc (min.)	220 ppm
Manganese (min.)	95 ppm
Cobalt (min.)	0.24 ppm
Copper (min.)	50 ppm
Iron (min.)	60 ppm
Chromium (max.)	1.47 ppm
Vitamin A (min.)	5,900 IU/lb.
Vitamin D (min.)	1,100 IU/lb.
Vitamin E (min.)	210 IU/lb.
Riboflavin (min.)	2.50 mg/lb.
Thiamine-B1 (min.)	7.00 mg/lb.
Ascorbic Acid (min.)	40 mg/lb.
Biotin (min.)	0.22 mg/lb.
Total Direct Fed Microbials (min.)	3.59 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	907 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	907 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	33.85 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.74 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	170 CU/lb.
Protease (Bacillus Licheniformis) (min.)**	0.62 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Wheat Middlings, Alfalfa Meal, Soybean Oil, Heat Stabilized Rice Bran, Ground Flaxseed, Soybean Hulls, Beet Pulp, Molasses, Lignosulfonate, Distillers Dried Grains, Dried Whey, Calcite, Sodium Bicarbonate, Calcium Carbonate, Monocalcium Phosphate, Salt, Magnesium Oxide, L-Lysine, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Saccharomyces Cerevisiae Yeast Extract, Saccharomyces Cerevisiae Active Dry Yeast, Hydrated Sodium Calcium Aluminosilicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Product, Dried Bacillus Licheniformis Fermentation Extract, Saccharomyces Cerevisiae Yeast Culture, Selenium Yeast, Vitamin E Supplement, DL-Methionine, Chromium Propionate, Dried Kelp, Zinc Hydroxychloride, Zinc Sulfate, Manganese Hydroxychloride, Ascorbic Acid, Manganese Sulfate, Lecithin, Natural & Artificial Flavors, Fenugreek Seed, Vitamin B12 Supplement, Magnesium Proteinate, Copper Hydroxychloride, Niacin Supplement, Biotin, Copper Sulfate, L-Leucine, Thiamine Mononitrate, Vitamin A Supplement, Dried Bacillus Subtilis Fermentation Product, Cobalt Proteinate, Beta-Carotene, Pyridoxine Hydrochloride, Cobalt Sulfate, Riboflavin Supplement, D-Calcium Pantothenate, Vitamin D3 Supplement, Choline Chloride, Folic Acid, Menadione Sodium Bisulfite Complex, Ethylenediamine Dihydriodide.

Feeding Directions:
Triple Crown Perform Gold is a high calorie diet designed to be fed to performance horses of any age. If feeding as a grain concentrate with hay, feed a minimum rate of 6 lb. per day to provide all necessary minerals and vitamins to horses in training and performing in strenuous type activities.

FOR PERFORMANCE HORSES: Begin by feeding as much good quality forage as possible, along with free access to clean water and salt. Horses should receive the equivalent of at least 10 lb. of hay per day or more. Feed Triple Crown Perform at a rate that will maintain the horse's desired body condition and energy level. Use 0.5 lb. per 100 lb. of bodyweight or 6 to 8 lb. per day for an average size Thoroughbred or Quarter Horse-type horse as a starting guideline; then adjust as desired.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

SENIOR GOLD

Equi Mix BP

14.5% Protein • 12.5% Fat • 18% Fiber • 1,800 KCAL/lb.

IDEAL FOR: Mature horses, hard keepers and those prone to gastric ulcers and PSSM

Guaranteed Analysis:

Crude Protein (min.)	14.50%
Lysine (min.)	0.90%
Methionine (min.)	0.25%
Threonine (min.)	0.70%
Tryptophan (min.)	0.20%
Leucine (min.)	1.00%
Crude Fat (min.)	12.50%
Crude Fiber (max.)	18.00%
ADF (max.)	22.00%
NDF (max.)	37.00%
Calcium (min./max.)	0.90/1.40%
Phosphorus (min.)	0.55%
Magnesium (min.)	0.40%
Potassium (min.)	1.00%
Sodium (min./max.)	0.50/1.00%
Chloride (min.)	0.50%
Salt (min./max.)	0.40/0.90%
Omega-3 Fatty Acids (min.)	1.10%
Omega-6 Fatty Acids (min.)	5.00%
Selenium (min./max.)	0.60/1.00 ppm
Zinc (min.)	260 ppm
Manganese (min.)	140 ppm
Cobalt (min.)	0.45 ppm
Copper (min.)	70 ppm
Iron (min.)	175 ppm
Chromium (max.)	1.47 ppm
Vitamin A (min.)	6,000 IU/lb.
Vitamin D (min.)	1,000 IU/lb.
Vitamin E (min.)	200 IU/lb.
Riboflavin (min.)	3.20 mg/lb.
Thiamine-B12 (min.)	8.00 mg/lb.
Ascorbic Acid (min.)	50 mg/lb.
Biotin (min.)	0.25 mg/lb.
Total Direct Fed Microbials (min.)	3.63 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	925 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	925 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	34 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.77 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	170 CU/lb.
Protease (Bacillus Licheniformis) (min.)**	0.63 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Shredded Beet Pulp, Dehydrated Alfalfa Meal, Wheat Middlings, Ground Soybean Hulls, Dehulled Soybean Meal, Soybean Oil, Distillers Dried Grains, Molasses, Ground Flaxseed, Heat Stabilized Rice Bran, Sodium Bicarbonate, Monocalcium Phosphate, Calcium Carbonate, Dried Whey, Calcite, Salt, Lignosulfonate, Magnesium Oxide, L-Lysine, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Saccharomyces Cerevisiae Yeast Extract, Saccharomyces Cerevisiae Active Dry Yeast, Hydrated Sodium Calcium Aluminosilicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Product, Dried Bacillus Licheniformis Fermentation Extract, Saccharomyces Cerevisiae Yeast Culture, Selenium Yeast, Vitamin E Supplement, DL-Methionine, Chromium Propionate, Zinc Sulfate, Dried Kelp, Manganese Sulfate, Zinc Hydroxychloride, Ascorbic Acid, Manganese Hydroxychloride, Vitamin B12 Supplement, Leucine, L-Threonine, Lecithin, Natural & Artificial Flavors, Fenugreek Seed, Magnesium Proteinate, Copper Sulfate, Copper Hydroxychloride, Niacin Supplement, L-Tryptophan, Biotin, Thiamine Mononitrate, Vitamin A Supplement, Beta-Carotene, Dried Bacillus Subtilis Fermentation Product, Cobalt Proteinate, Pyridoxine Hydrochloride, Riboflavin Supplement, Cobalt Sulfate, D-Calcium Pantothenate, Vitamin D3 Supplement, Choline Chloride, Folic Acid, Menadione Sodium Bisulfite Complex, Ethylenediamine Hydroiodide.

Feeding Directions:
Triple Crown Senior Gold is designed for horses that have difficulty consuming hay and traditional horse feeds in pelleted or textured form due to damaged or worn teeth. The nutrient concentration of Senior Gold has also been adjusted to provide a greater allowance to older and other metabolically challenged horses that sometimes experience difficulty digesting and/or metabolizing normal feedstuffs, minerals and vitamins.

IF YOUR HORSE CAN EAT HAY: Provide good quality hay and/or pasture, salt and fresh, clean water on a free-choice basis. Adjust the amount of Triple Crown Senior Gold fed on a daily basis in order to maintain body condition at a moderate level. Begin with aboput 6 lb. per day and then adjust up or down as needed after 2 to 4 weeks in order to maintain desired body condition. Do not feed more than 5 lb. of Triple Crown Senior Gold at a single meal. Allow 3 to 4 hours between meals when feeding 4 to 5 lb. at a single meal.

IF YOUR HORSE HAS DAMAGED OR WORN TEETH AND CANNOT EAT HAY: Triple Crown Senior Gold can be fed as the sole feed for your horse. Provide salt and fresh, clean water on a free-choice basis. Adjust the amount of Senior Gold fed on a daily basis in order to maintain body condition at a moderate level. Begin with approximately 12 lb. per day and then adjust up or down as needed after 2 to 4 weeks in order to maintain desired body condition. Do not feed more than 5 lb. at a single meal. Allow 3 to 4 hours between meals when feeding 4 to 5 lb. at a single meal. Water should be added to at the rate of approximately 1 cup of water per 2 to 3 lb. of Senior Gold 10 to 15 minutes prior to feeding. The amount of water added can be adjusted to meet the desires of the individual horse.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

NOW WITH CHROMIUM!

TRIPLE CROWN®

BALANCER GOLD

13.5% Protein • 4.5% Fat • 15% Fiber • 1,300 KCAL/lb.

IDEAL FOR: Ponies, miniature horses, easy keepers

Guaranteed Analysis:

Crude Protein (min.)	13.50%
Lysine (min.)	0.90%
Methionine (min.)	0.29%
Threonine (min.)	0.60%
Tryptophan (min.)	0.25%
Leucine (min.)	1.00%
Crude Fat (min.)	4.50%
Crude Fiber (max.)	15.00%
ADF (max.)	20.00%
NDF (max.)	32.00%
Calcium (min./max.)	3.00/3.50%
Phosphorus (min.)	1.50%
Magnesium (min.)	2.50%
Potassium (min.)	1.50%
Sodium (min./max.)	0.65/1.00%
Chloride (min.)	0.65%
Salt (min./max.)	0.25/1.00%
Omega-3 Fatty Acids (min.)	1.20%
Omega-6 Fatty Acids (min.)	1.00%
Selenium (min./max.)	3.50/4.50 ppm
Zinc (min.)	1,000 ppm
Manganese (min.)	575 ppm
Cobalt (min.)	2.10 ppm
Copper (min.)	300 ppm
Iron (min.)	500 ppm
Chromium (max.)	8.80 ppm
Vitamin A (min.)	36,000 IU/lb.
Vitamin D (min.)	6,000 IU/lb.
Vitamin E (min.)	1,000 IU/lb.
Riboflavin (min.)	15.00 mg/lb.
Thiamine (min.)	42.00 mg/lb.
Ascorbic Acid (min.)	275 mg/lb.
Biotin (min.)	1.40 mg/lb.
Total Direct Fed Microbials (min.)	17.97 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	4.54 billion CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	4.54 billion CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	169 million CFU/lb.
Saccharomyces Cerevisiae (min.)	8.69 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	850 CU/lb.
Protease (Bacillus Licheniformis) (min.)**	3.08 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Alfalfa Meal, Wheat Middlings, Dried Whey, Monocalcium Phosphate, Ground Flaxseed, Calcium Carbonate, Magnesium Oxide, Lignosulfonate, Sodium Bicarbonate, Calcite, Selenium Yeast , Salt, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Saccharomyces Cerevisiae Yeast Extract, Saccharomyces Cerevisiae Active Dry Yeast, Hydrated Sodium Calcium Aluminosilicate, Dried Enterococcus faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Product, Dried Bacillus Licheniformis Fermentation Extract, Saccharomyces Cerevisiae Yeast Culture, Vitamin E Supplement, Lysine, Chromium Propionate, Dried Kelp, Zinc Sulfate, Manganese Sulfate, Leucine, L-Threonine, Zinc Hydroxychloride, Ascorbic Acid, Manganese Hydroxychloride, Vitamin B12 Supplement, L-Tryptophan, DL-Methionine, Lecithin, Natural & Artificial Flavors, Fenugreek Seed, Magnesium Proteinate, Niacin Supplement, Copper Hydroxychloride, Copper Sulfate, Biotin, Leucine, Thiamine Mononitrate, Vitamin A Supplement, Beta-Carotene, Dried Bacillus Subtilis Fermentation Product, Cobalt Proteinate, Pyridoxine Hydrochloride, Riboflavin Supplement, D-Calcium Pantothenate, Cobalt Sulfate, Vitamin D3 Supplement, Choline Chloride, Folic Acid, Menadione Sodium Bisulfite Complex, Ethylenediamine Dihydriodide.

Feeding Directions:
Triple Crown Balancer Gold can be used to balance pasture and/or hay, improve nutrition in diets when feeding small amounts, or to mix with your own grains for a balanced diet. Adjust feed, pasture or hay to maintain desired body condition. For balancing pasture and/or hay, feed 1 to 1.5 lb. per 1,000 lb. of body weight. Feed .5 to .75 lb. for ponies. For horses in moderate to high levels of activity, and for broodmares and breeding stallions, feed 1.5 to 2 lb. per day. For balanced diets where current feeding rates fall below the minimum for that diet, add .5 to 1 lb. per 1,000 lb. of body weight along with the diet being fed. Feed .25 to .5 lb. for ponies. For horses with moderate to high levels of activity, and for broodmares and breeding stallions, feed 1 lb. per day. When mixing with your own grains (oats, corn or barley), mix at a ratio of 1:4.5 of Triple Crown Balancer Gold, along with your grains and add molasses, if desired, for palatability and consistency.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

SENIOR ACTIVE+

14% Protein · 12% Fat · 16% Fiber · 1,535 KCAL/lb.

IDEAL FOR: Active, older horses

Guaranteed Analysis:

Crude Protein (min.)	14.00%
Lysine (min.)	0.95%
Methionine (min.)	0.30%
Threonine (min.)	0.80%
Tryptophan (min.)	0.15%
Leucine (min.)	0.97%
Crude Fat (min.)	12.00%
Crude Fiber (max.)	16.00%
ADF (max.)	22.00%
NDF (max.)	34.00%
Calcium (min./max.)	0.75/1.25%
Phosphorus (min.)	0.65%
Magnesium (min.)	0.55%
Potassium (min.)	0.99%
Sodium (min./max.)	0.25/0.75%
Chloride (min.)	0.50%
Salt (min./max.)	0.25/0.75%
Omega-3 Fatty Acids (min.)	1.20%
Omega-6 Fatty Acids (min.)	5.50%
Selenium (min./max.)	0.60/1.10 ppm
Zinc (min.)	220 ppm
Manganese (min.)	95 ppm
Cobalt (min.)	0.20 ppm
Copper (min.)	50 ppm
Iron (min.)	200 ppm
Vitamin A (min.)	5,930 IU/lb.
Vitamin D (min.)	1,125 IU/lb.
Vitamin E (min.)	170 IU/lb.
Riboflavin (min.)	2.50 mg/lb.
Thiamine (min.)	7.00 mg/lb.
Ascorbic Acid (min.)	40 mg/lb.
Biotin (min.)	0.20 mg/lb.
Total Direct Fed Microbials (min.)	4.05 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	1.13 billion CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	1.13 billion CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	27 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.77 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.68 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,430 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Wheat Middlings, Soybean Hulls, Dehydrated Alfalfa Meal, Soybean Oil, Dried Plain Beet Pulp, Distiller's Dried Grains with Solubles, Oat Groats, Whole Flaxseed, Stabilized Rice Bran, Soybean Meal, Sodium Bicarbonate, Calcite, Calcium Carbonate, Monocalcium Phosphate, Salt, Magnesium Oxide, L-Lysine Hydrochloride, L-Tryptophan, DL-Methionine, L-Threonine, L-Leucine, Dextrose, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Bacillus Subtilis, Hydrolyzed Yeast, Zinc Amino Acid Complex, Manganese Amino Acid Complex, Copper Amino Acid Complex, Hydrated Sodium Calcium Aluminosilicate, Yeast Extract, Kelp Meal, Dried Yeast, Lecithin, Fenugreek Seed, Magnesium Proteinate, Selenium Yeast, Vitamin E Supplement, Ascorbic Acid, Niacin Supplement, Biotin, Thiamine Mononitrate, Vitamin A Supplement, Vitamin B12 Supplement, Beta-Carotene, Pyridoxine Hydrochloride, Riboflavin Supplement, Calcium Pantothenate, Vitamin D3 Supplement, Choline Chloride, Folic Acid, Menadione Sodium Bisulfite Complex, Ferrous Sulfate, Zinc Sulfate, Manganese Sulfate, Copper Sulfate, Cobalt Proteinate, Ethylenediamine Dihydroiodide, Cobalt Sulfate, and Natural and Artificial Flavors.

Feeding Directions:
Start with the amount of feed recommended for the given weight and work level of the horse; adjust amount being fed over time to achieve desired body condition. If feeding less than 5 lb. per day per 1,000 lb. of body weight, add Triple Crown Balancer to provide essential vitamins and minerals at a level that meets your horse's daily requirements. Please contact Triple Crown with any questions you might have about your horse's feeding program.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

SENIOR

14% Protein · 10% Fat · 17% Fiber · 1,546 KCAL/lb.

IDEAL FOR: Mature horses, hard keepers, rescue/starved horses, horses with ulcers, COPD/heaves

Guaranteed Analysis:

Crude Protein (min.)	14.00%
Lysine (min.)	0.80%
Methionine (min.)	0.22%
Threonine (min.)	0.66%
Tryptophan (min.)	0.18%
Leucine (min.)	0.96%
Crude Fat (min.)	10.00%
Crude Fiber (max.)	17.00%
ADF (max.)	21.00%
NDF (max.)	36.00%
Calcium (min./max.)	0.90/1.40%
Phosphorus (min.)	0.60%
Magnesium (min)	0.37%
Potassium (min.)	1.20%
Sodium (min./max.)	0.40/0.75%
Salt (min./max.)	0.25/0.50%
Total Omega-3 Fatty Acids (min.)	0.60%
Total Omega-6 Fatty Acids (min.)	3.50%
Selenium (min./max.)	0.50/1.00 ppm
Zinc (min.)	200 ppm
Manganese (min.)	100 ppm
Cobalt (min.)	0.40 ppm
Copper (min.)	50 ppm
Iron (min.)	175 ppm
Vitamin A (min.)	6,000 IU/lb.
Vitamin D (min.)	1,000 IU/lb.
Vitamin E (min.)	175 IU/lb.
Riboflavin (min.)	2.50 mg/lb.
Thiamine-B1 (min.)	7.00 mg/lb.
Ascorbic Acid (min.)	45 mg/lb.
Biotin (min.)	0.20 mg/lb.
Total Direct Fed Microbials (min.)	2.33 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	590 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	590 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	22 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.13 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.44 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	927 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Dehydrated Alfalfa Meal, Wheat Middlings, Shredded Beet Pulp, Soybean Hulls, Cane Molasses, Dehulled Soybean Meal, Soybean Oil, Distillers Dried Grains, Ground Flaxseed, Stabilized Rice Bran, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Magnesium Oxide, Yeast Extract, Yeast Culture, Hydrolyzed Yeast, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Lecithin, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Salt, Sodium Bicarbonate, Fenugreek Seed, Anise, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Brewers Dried Yeast, Manganese Sulfate, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Triple Crown Senior is designed for horses that have difficulty consuming hay and traditional horse feeds in pelleted or textured form due to damaged or worn teeth. The nutrient concentration is also adjusted to provide a greater allowance to older and other metabolically-challenged horses that sometimes experience difficulty digesting and/or metabolizing normal feedstuffs, minerals and vitamins.

IF YOUR HORSE CAN EAT HAY: Provide good quality hay and/or pasture, salt, and fresh, clean water on a free-choice basis. Adjust the amount of Triple Crown Senior fed on a daily basis in order to maintain body condition at a moderate level. Begin with about 6 lb. per day (Ponies: 4 lb.) and then adjust as needed after 2-4 weeks in order to maintain desired body condition. Do not feed more than 5 lb. at a single meal (Ponies: 3 lb.). Allow 3-4 hours between meals when feeding 4-5 lb. (Ponies: 2-3 lb.) at a single meal.

IF YOU HORSE HAS DAMAGED OR WORN TEETH AND CANNOT EAT HAY: Triple Crown Senior can be fed as the sole feed for your horse. Provide salt and fresh, clean water on a free-choice basis. Adjust the amount fed on a daily basis in order to maintain the horse's body condition at a moderate level. Begin with approximately 12 lb. of Triple Crown Senior per day (Ponies: 8-10 lb.) and then adjust up or down as needed after 2-4 weeks in order to maintain desired body condition. Do not feed more than 5 lb. (Ponies: 3 lb.) at a single meal. Allow 3-4 hours between meals when feeding 4-5 lb. (Ponies: 2-3 lb.) at a single meal. Water should be added to at the rate of approximately 1 cup of water per 2-3 lb. of Triple Crown Senior 10-15 minutes prior to feeding. The amount of water added can be adjusted to meet the desires of the individual horse or pony.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

COMPLETE

12% Protein • 12% Fat • 15% Fiber • 1,700 KCAL/lb.

IDEAL FOR: Hard keepers, performance horses, COPD/ heaves

Guaranteed Analysis:

Crude Protein (min.)	12.00%
Lysine (min.)	0.65%
Methionine (min.)	0.20%
Threonine (min.)	0.52%
Tryptophan (min.)	0.15%
Leucine (min.)	0.80%
Crude Fat (min.)	12.00%
Crude Fiber (max.)	15.00%
ADF (max.)	16.00%
NDF (max.)	30.00%
Calcium (min./max.)	0.75/1.25%
Phosphorus (min.)	0.55%
Magnesium (min.)	0.30%
Potassium (min.)	1.00%
Sodium (min./max.)	0.30/0.60%
Salt (min./max.)	0.20/0.50%
Total Omega-3 Fatty Acids (min.)	0.70%
Total Omega-6 Fatty Acids (min.)	5.00%
Selenium (min./max.)	0.40/0.75 ppm
Zinc (min.)	170 ppm
Manganese (min.)	85 ppm
Cobalt (min.)	0.25 ppm
Copper (min.)	35 ppm
Iron (min.)	170 ppm
Vitamin A (min.)	4,000 IU/lb.
Vitamin D (min.)	750 IU/lb.
Vitamin E (min.)	115 IU/lb.
Riboflavin (min.)	1.90 mg/lb.
Thiamine-B1 (min.)	5.20 mg/lb.
Ascorbic Acid (min.)	30 mg/lb.
Biotin (min.)	0.20 mg/lb.
Total Direct Fed Microbials (min.)	2.53 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	636 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	636 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	16.25 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.25 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.47 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,000 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Dehydrated Alfalfa Meal, Cane Molasses, Shredded Beet pulp, Whole Oats, Soybean Hulls, Wheat Middlings, Dehulled Soybean Meal, Soybean Oil, Distillers Dried Grains, Ground Flaxseed, Stabilized Rice Bran, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Magnesium Oxide, Yeast Extract, Yeast Culture, Hydrolyzed Yeast, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Lecithin, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Salt, Sodium Bicarbonate, Fenugreek Seed, Anise, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Brewers Dried Yeast, Manganese Sulfate, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Triple Crown Complete is designed for mature horses. If feeding as a grain concentrate with hay, feed a minimum of 5-15 lb. per day for desired body condition. If replacing all the hay in the diet, feed 1-1.5% of body weight daily. Triple Crown Complete can be soaked with warm water for older horses with poor teeth and/or respiratory problems, or for horses prone to choking.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

GROWTH

15% Protein • 10% Fat • 15% Fiber • 1,620 KCAL/lb.

IDEAL FOR: Weanlings, yearlings, broodmares and breeding stallions

Guaranteed Analysis:

Crude Protein (min.)	15.00%
Lysine (min.)	0.90%
Methionine (min.)	0.27%
Threonine (min.)	0.69%
Tryptophan (min.)	0.21%
Leucine (min.)	1.10%
Crude Fat (min.)	10.00%
Crude Fiber (max.)	15.00%
ADF (max.)	17.00%
NDF (max.)	29.00%
Calcium (min./max.)	1.10/1.60%
Phosphorus (min.)	0.70%
Magnesium (min.)	0.50%
Potassium (min.)	1.10%
Sodium (min./max.)	0.40/0.75%
Salt (min./max.)	0.30/0.70%
Total Omega-3 Fatty Acids (min.)	0.60%
Total Omega-6 Fatty Acids (min.)	3.50%
Selenium (min./max.)	0.60/1.50 ppm
Zinc (min.)	250 ppm
Manganese (min.)	150 ppm
Cobalt (min.)	0.50 ppm
Copper (min.)	70 ppm
Iron (min.)	175 ppm
Vitamin A (min.)	8,000 IU/lb.
Vitamin D (min.)	1,500 IU/lb.
Vitamin E (min.)	245 IU/lb.
Riboflavin (min.)	4.00 mg/lb.
Thiamine-B1 (min.)	10.50 mg/lb.
Ascorbic Acid (min.)	65 mg/lb.
Biotin (min.)	0.35 mg/lb.
Total Direct Fed Microbials (min.)	3.64 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	908 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	908 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	26 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.80 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.68 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,430 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Dehydrated Alfalfa Meal, Whole Oats, Shredded Beet Pulp, Soybean Hulls, Wheat Middlings, Cane Molasses, Dehulled Soybean Meal, Distillers Dried Grains, Soybean Oil, Whole Roasted Soybeans, Ground Flaxseed, Stabilized Rice Bran, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Magnesium Oxide, Yeast Extract, Yeast Culture, Hydrolyzed Yeast, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Lecithin, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Salt, Sodium Bicarbonate, Fenugreek Seed, Anise, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Brewers Dried Yeast, Manganese Sulfate, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Triple Crown Growth should be fed to growing horses along with free access to good quality pasture and/or hay, fresh clean water and plenty of free exercise. For nursing foals, feed 1% of body weight up to 400 lb. For weanlings and older, the amount of Triple Crown Growth fed daily should be adjusted to maintain a moderate body condition level. If not sure how much to feed, begin with 6-8 lb. per day divided into as many feedings as feasible and then adjust up or down depending upon the needs of the individual horse. If feeding less than 5 lb. of Triple Crown Growth on a regular basis due to easy maintenance of desired body condition, then 0.5-1 lb. per day of Triple Crown Balancer should also be fed in combination with Triple Crown Growth as means to insure adequate mineral and vitamin intakes to support sound growth. For ponies, feed half of the recommendations listed above for horses.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

BALANCER

30% Protein • 3% Fat • 5% Fiber • 1,266 KCAL/lb.

IDEAL FOR: Ponies, miniature horses, easy keepers, horses with metabolic disease

Guaranteed Analysis:

Crude Protein (min.)	30.00%
Lysine (min.)	2.00%
Methionine (min.)	0.62%
Threonine (min.)	1.35%
Tryptophan (min.)	0.44%
Leucine (min.)	2.25%
Crude Fat (min.)	3.00%
Crude Fiber (max.)	5.00%
ADF (max.)	7.00%
NDF (max.)	13.00%
Calcium (min./max.)	4.00/5.00%
Phosphorus (min.)	1.50%
Magnesium (min.)	2.40%
Potassium (min.)	1.30%
Sodium (min./max.)	0.50/1.00%
Salt (min./max.)	0.95/1.45%
Omega-3 Fatty Acids (min.)	0.40%
Omega-6 Fatty Acids (min.)	1.10%
Selenium (min./max.)	3.40/4.40 ppm
Zinc (min.)	1,000 ppm
Manganese (min.)	575 ppm
Cobalt (min.)	2.10 ppm
Copper (min.)	300 ppm
Iron (min.)	500 ppm
Chromium (max.)	8.80 ppm
Vitamin A (min.)	36,000 IU/lb.
Vitamin D (min.)	6,000 IU/lb.
Vitamin E (min.)	1,000 IU/lb.
Riboflavin (min.)	16.00 mg/lb.
Thiamine-B1 (min.)	42.00 mg/lb.
Ascorbic Acid (min.)	275 mg/lb.
Biotin (min.)	1.40 mg/lb.
Total Direct Fed Microbials (min.)	17.97 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	4.54 billion CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	4.54 billion CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	169 million CFU/lb.
Saccharomyces Cerevisiae (min.)	8.69 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.) *	850 CU/lb.
Protease (Bacillus Licheniformis) (min.) **	3.08 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Soybean Meal, Wheat Middlings, Calcium Carbonate, Monocalcium Phosphate, Magnesium Oxide, Heat Stabilized Rice Bran, Soybean Oil, Molasses, Ground Flaxseed, Salt, Lignosulfonate, Sodium Bicarbonate, Selenium Yeast, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Saccharomyces Cerevisiae Yeast Extract, Saccharomyces Cerevisiae Active Dry Yeast, Hydrated Sodium Calcium Aluminosilicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Product, Dried Bacillus Licheniformis Fermentation Extract, Saccharomyces Cerevisiae Yeast Culture, Vitamin E Supplement, DL-Methionine, Chromium Propionate, L-Threonine, L-Lysine, Dried Kelp, Zinc Sulfate, Manganese Sulfate, Zinc Hydroxychloride, Ascorbic Acid, L-Leucine, Manganese Hydroxychloride, Vitamin B12 Supplement, Lecithin, Natural & Artificial Flavors, Fenugreek Seed, Magnesium Proteinate, Niacin Supplement, Copper Hydroxychloride, Copper Sulfate, Biotin, Thiamine Mononitrate, Vitamin A Supplement, Beta-Carotene, Dried Bacillus Subtilis Fermentation Product, Cobalt Proteinate, Pyridoxine Hydrochloride, Riboflavin Supplement, D-Calcium Pantothenate, Cobalt Sulfate, Vitamin D3 Supplement, Choline Chloride, Folic Acid, Menadione Sodium Bisulfite Complex, Ethylenediamine Dihydroiodide.

Feeding Directions:
Triple Crown Balancer can be used to balance pasture and/or hay, improve nutrition in diets when feeding small amounts, or to mix with your own grains for a balanced diet. Adjust feed, pasture or hay to maintain desired body condition.

FOR BALANCING PASTURE AND/OR HAY: feed 1-1.5 lb. per 1,000 lb. of body weight. Feed 0.5 -.75 lb. for ponies. For horses in moderate to high levels of activity, and for broodmares and breeding stallions, feed 1.5-2 lb. per day.

FOR BALANCED DIETS WHERE CURRENT FEEDING RATES FALL BELOW THE MINIMUM FOR THAT DIET: add 0.5-1 lb. per 1,000 lb. of body weight along with the diet being fed. Feed 0.25-0.5 lb. for ponies. For horses in moderate to high levels of activity, and for broodmares and breeding stallions, feed 1 lb. per day.

WHEN MIXING WITH YOUR OWN GRAINS (OATS, CORN OR BARLEY): mix at a ratio of 1:4.5 of Triple Crown Balancer along with your grains and add molasses, if desired, for palatability and consistency.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

LITE

12% Protein · 3% Fat · 20% Fiber · 1,150 KCAL/lb.

IDEAL FOR: Ponies, miniature horses, easy keepers, horses with metabolic disease

Guaranteed Analysis:

Crude Protein (min.)	12.00%
Lysine (min.)	0.80%
Methionine (min.)	0.26%
Threonine (min.)	0.84%
Tryptophan (min.)	0.16%
Leucine (min.)	0.91%
Crude Fat (min.)	3.00%
Crude Fiber (max.)	20.00%
ADF (max.)	25.00%
NDF (max.)	44.00%
Calcium (min./max.)	1.75/2.25%
Phosphorus (min.)	1.00%
Magnesium (min.)	0.50%
Potassium (min.)	1.00%
Sodium (min./max.)	0.40/0.75%
Salt (min./max.)	0.75/1.25%
Total Omega-3 Fatty Acids (min.)	0.22%
Total Omega-6 Fatty Acids (min.)	1.20%
Selenium (min./max.)	2.30/2.95 ppm
Zinc (min.)	540 ppm
Manganese (min.)	380 ppm
Cobalt (min.)	2.00 ppm
Copper (min.)	140 ppm
Iron (min.)	200 ppm
Vitamin A (min.)	11,000 IU/lb.
Vitamin D (min.)	2,000 IU/lb.
Vitamin E (min.)	305 IU/lb.
Riboflavin (min.)	4.60 mg/lb.
Thiamine-B1 (min.)	12.00 mg/lb.
Ascorbic Acid (min.)	80 mg/lb.
Biotin (min.)	0.40 mg/lb.
Total Direct Fed Microbials (min.)	3.64 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	908 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	908 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	25 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.80 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.68 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,430 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Soybean Hulls, Wheat Middlings, Dehydrated Alfalfa Meal, Distillers Dried Grains, Ground Flaxseed, Calcium Carbonate, Salt, Sodium Bicarbonate, Dicalcium Phosphate, Yeast Extract, Yeast Culture, Calcium Silicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Magnesium Oxide, Fenugreek Seed, Lecithin, Anise, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Soybean Oil, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Manganese Sulfate, Lignin Sulfonate, Brewers Dried Yeast, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Triple Crown Lite is designed to be a palatable feed for horses that will provide a desired intake level of supplemental minerals and vitamins without encouraging excessive weight gains. Triple Crown Lite should be fed to horses that have a tendency to become overweight or are receiving less than 4 lb. of grain per day. Triple Crown Lite should be fed in combination with hay and/or pasture, salt, and fresh, clean water. If your horse is being fed more than 5 lb. of grain daily in order to maintain desired body condition, Triple Crown Lite is not recommended.

MATURE HORSES: Feed 1-2 lb. of Triple Crown Lite per 500 lb. of body weight per day. If more than 4 lb. of Triple Crown Lite is required to maintain the horse's desired body condition a switch to another Triple Crown formulation such as Low Starch may be necessary.

PONIES AND MINIATURE HORSES: Feed 1 lb. of Triple Crown Lite per 500 lb. of body weight and adjust feeding rate to maintain desired body condition. CAUTION: In order to avoid excessive mineral and vitamin intake, DO NOT feed more than 5 lb. of Triple Crown Lite per day. Chronic intake of excess minerals and/or vitamins can adversely affect the health of your horse.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

LOW STARCH

13% Protein · 6% Fat · 18% Fiber · 1,428 KCAL/lb.

IDEAL FOR: Hyperactive horses, horses prone to ulcers, horses with HYPP

Guaranteed Analysis:

Crude Protein (min.)	13.00%
Lysine (min.)	0.75%
Methionine (min.)	0.25%
Threonine (min.)	0.70%
Tryptophan (min.)	0.15%
Leucine (min.)	0.90%
Crude Fat (min.)	6.00%
Crude Fiber (max.)	18.00%
ADF (max.)	22.00%
NDF (max.)	44.00%
Calcium (min./max.)	0.75/1.25%
Phosphorus (min.)	0.60%
Magnesium (min.)	0.50%
Potassium (min.)	0.75%
Sodium (min./max.)	0.50/1.00%
Salt (min./max.)	0.75/1.50%
Total Omega-3 Fatty Acids (min.)	0.60%
Total Omega-6 Fatty Acids (min.)	2.90%
Selenium (min./max.)	0.60/1.60 ppm
Zinc (min.)	220 ppm
Manganese (min.)	100 ppm
Cobalt (min.)	0.20 ppm
Copper (min.)	50 ppm
Iron (min.)	100 ppm
Vitamin A (min.)	6,000 IU/lb.
Vitamin D (min.)	1,200 IU/lb.
Vitamin E (min.)	205 IU/lb.
Riboflavin (min.)	3.20 mg/lb.
Thiamine-B1 (min.)	8.00 mg/lb.
Ascorbic Acid (min.)	55 mg/lb.
Biotin (min.)	0.25 mg/lb.
Total Direct Fed Microbials (min.)	3.64 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	908 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	908 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	25 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.80 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.68 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,430 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Wheat Middlings, Soybean Hulls, Ground Beet Pulp, Distillers Dried Grains, Soybean Oil, Ground Flaxseed, Stabilized Rice Bran, Calcium Carbonate, Salt, Sodium Bicarbonate, Dicalcium Phosphate, Yeast Extract, Yeast Culture, Calcium Silicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Magnesium Oxide, Fenugreek Seed, Lecithin, Anise, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Manganese Sulfate, Lignin Sulfonate, Brewers Dried Yeast, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Triple Crown Low Starch can be fed to all horses one year of age or older. Feed enough to maintain desired body condition and energy level along with hay, and/or pasture, water and salt. If feeding less than 6 lb. per day to horses weighing 900 lb. or more, also feed additional minerals and vitamins supplied by either Triple Crown Balancer or Triple Crown Lite. Triple Crown Low Starch is a complete diet and can replace all or a part of your fiber portion of your diet; however, we strongly recommend that you continue to feed a portion of your diet in long stem hay or pasture.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

SAFE STARCH® FORTIFIED FORAGE

11% Protein · 6% Fat · 28% Fiber · 1,100 KCAL/lb.

IDEAL FOR: Horses with metabolic disease, founder/ laminitis, poor teeth

Triple Crown Safe Starch Fortified Forage (a mixture of orchard and Timothy hays) provides horses with their entire diet –forage, as well as vitamins and minerals. Featuring Triple Crown's unique EquiMix®, Triple Crown Safe Starch Fortified Forage is specially selected, low starch and sugar grass hay that is molasses and whole grain free and provides 6% fat.

Guaranteed Analysis:

Crude Protein (min.)	11.00%
Lysine (min.)	0.35%
Methionine (min.)	0.10%
Threonine (min.)	0.30%
Tryptophan (min.)	0.07%
Leucine (min.)	0.38%
Crude Fat (min.)	6.00%
Crude Fiber (max.)	28.00%
ADF (max.)	30.00%
NDF (max.)	46.00%
Calcium (min./max.)	0.60/1.00%
Phosphorus (min.)	0.40%
Magnesium (min.)	0.50%
Potassium (min.)	2.00%
Selenium (min.)	0.30 ppm
Zinc (min.)	120 ppm
Manganese (min.)	120 ppm
Copper (min.)	35 ppm
Iron (min.)	180 ppm
Vitamin A (min.)	4,000 IU/lb.
Vitamin D (min.)	750 IU/lb.
Vitamin E (min.)	110 IU/lb.
Ascorbic Acid (min.)	30 mg/lb.
Biotin (min.)	0.15 mg/lb.
Total Direct Fed Microbials (min.)	1.89 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	454 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	454 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	80 million CFU/lb.
Saccharomyces Cerevisiae (min.)	908 million CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.34 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	715 HUT/lb.

*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Orchard Grass Hay, Timothy Grass Hay, Soybean Oil, Wheat Middlings, Dehulled Soybean Meal, Rice Bran, Glycerin, Calcium Carbonate, Dicalcium Phosphate, Monocalcium-Dicalcium Phosphate, Monosodium Phosphate, Salt, Sodium Bicarbonate, Sodium Sesquicarbonate, Magnesium Oxide, Butyric Acid, Peppermint Essential Oil, Zinc Oxide, Hydrated Sodium Calcium Aluminosilicate, Manganous Sulfate, Magnesium Proteinate, Manganese Amino Acid Complex, Zinc Sulfate, Zinc Amino Acid Complex, Ferrous Sulfate, Iron Amino Acid Complex, Copper Sulfate, Copper Amino Acid Complex, Cobalt Sulfate, Ethylenediamine Dihydriodide, Selenium Yeast, Vitamin A Supplement, Vitamin D3 Supplement, Vitamin E Supplement, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Ascorbic Acid (Vitamin C), Riboflavin Supplement, Niacin Supplement, Calcium Pantothenate, Vitamin B12 Supplement, Choline Chloride, d-Biotin, Thiamine Mononitrate, Pyridoxine Hydrochloride, Folic Acid, Beta-Carotene, Calcium Lignin Sulfonate, Trichoderma Longibrachiatum Fermentation Extract, Brewers Dried Yeast, Dried Yeast Fermentation Solubles, Lactobacillus Acidophilus Fermentation Product, Enterococcus Faecium Fermentation Product, Bacillus Subtilis Fermentation Product, Dried Saccharomyces Cerevisiae Fermentation Solubles, Bacillus Subtilis Fermentation Extract, L-Lysine, DL-Methionine, L-Threonine, L-Leucine, Kelp Meal, Lecithin, Fenugreek Seed, Flaxseed, Anise Seed.

Feeding Directions:
Triple Crown Safe Starch Fortified Forage is an all-in-one diet for mature horses. No other hay, pasture, or mineral and vitamin supplement is required to provide your horse a complete and balanced diet. Feed Triple Crown Safe Starch Fortified Forage to mature horses at a rate that maintains desired body condition. Begin with approximately 2% of body weight (20 lb. for a 1,000 lb. horse) and adjust up or down, depending upon the individual horse's body condition. You want to feed a minimum of 1% of body weight.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old or contaminated with mold, insects or foreign material.

FEEDING SCENARIO	FEEDING RATE	FEEDING NOTES
To supplement hay or pasture	4-6 lb.	Improve hay quality or pasture by adding Safe Starch
To replace feed/grain	8 lb.	Meets vitamin/mineral requirements; Should be fed in combination with a min. of 1% of body weight in hay/pasture
To use as a complete diet	10-20 lb.	Complete balanced diet; Adjust up or down depending on desired body condition

per 1,000 lb. horse

with ButiPEARL® Z EQ & CLOSTAT®

TRIPLE CROWN®

STRESSFREE® FORTIFIED FORAGE

14% Protein • 7% Fat • 25% Fiber • 1,150 KCAL/lb.

IDEAL FOR: Horses with gastric/colonic ulcers and horses that tend to go off feed due to stress caused from trailering,

Triple Crown StressFree Fortified Forage is an alfalfa-based supplement that utilizes a multiple nutrient-based approach to support normal digestive health. The inclusion of chopped alfalfa hay provides a natural buffering effect for horses on or off pharmacological treatments. Mannan oligosaccharides (MOS) help stimulate immune function, while Omega-3 fatty acids aid in the reduction of intestinal cell inflammation. This forage contains CLOSTAT and ButiPEARL Z EQ, an encapsulated form of butyric acid and zinc, which helps strengthen the intestinal tract to help protect against pathogens, parasites and toxins while improving nutrient absorption.

Guaranteed Analysis:

Crude Protein (min.)	14.00%
Crude Fat (min.)	7.00%
Crude Fiber (max.)	25.00%
ADF (max.)	35.00%
NDF (max.)	42.00%
Beta Glucan (min.)	6.50 g/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	220 million CFU/lb.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Sun-Cured Alfalfa, Alfalfa Meal, Flaxseed Oil, Soybean Oil, Wheat Middlings, Yeast Extract, Distillers Dried Grains, Cane Molasses L-Carnitine, Butyric Acid, Zinc Oxide, L-Glutamine, Bentonite, Lignosulfonate, Dried Bacillus Subtilis Fermentation Product, Anise, Peppermint Essential Oil, Calcium Carbonate, Glycerin.

Feeding Directions:
Feed 2-4 lb. of StressFree Fortified Forage, per horse, per day. StressFree can be mixed with horse's grain or fed separately.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old or contaminated with mold, insects or foreign material.

TRIPLE CROWN®

PREMIUM ALFALFA FORAGE BLEND

15% Protein · 2.5% Fat · 30% Fiber · 960 KCAL/lb.

IDEAL FOR: Hay shortages, poor hay quality

Made primarily with the best alfalfa and a small amount of Timothy hay and orchard grass, Triple Crown Premium Alfalfa Forage Blend is intended to replace all or part of the hay portion of any horse's diet. Triple Crown Premium Alfalfa Forage Blend is chopped to an average length of two inches and blended with a small amount of molasses and glycerin to maintain product consistency and leaf integrity.

Guaranteed Analysis:

Crude Protein (min.)	15.00%
Crude Fat (min.)	2.50%
Crude Fiber (max.)	30.00%
ADF (max.)	35.00%
NDF (max.)	42.00%

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Sun Cured Alfalfa, Timothy Hay, Orchard Grass, Cane Molasses, Glycerin (Proprionic Acid, Sodium Benzoate, Potassium Sorbate(Preservatives)).

Feeding Directions:
Triple Crown premium forages should be fed at a minimum rate of 1-1.5% of body weight (10-15 lb. for a 1,000 lb. horse) per day if using as a complete hay replacement. Feed 4-6 lb. per day if using as a supplement to normal long stem hay. Feed separately in a feed bin or bucket, or mix with your grain ration. Mixing may help reduce rapid consumption (bolting) and slow the digestive passage through the gut to maximize digestion.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old or contaminated with mold, insects or foreign material.

TRIPLE CROWN®

PREMIUM GRASS FORAGE

8% Protein · 2.5% Fat · 30% Fiber · 920 KCAL/lb.

IDEAL FOR: Hay shortages, poor hay quality, poor teeth

Triple Crown Premium Grass Forage offers horse owners the perfect remedy for poor-to-average quality equine hay. Comprised of chopped and blended Timothy hay and orchard grass, Triple Crown Premium Grass Forage is a highly digestible, consistently superior forage that's ideal for any feeding need.

Guaranteed Analysis:

Crude Protein (min.)	8.00%
Crude Fat (min.)	2.50%
Crude Fiber (max.)	30.00%
ADF (max.)	30.00%
NDF (max.)	46.00%

Ingredient List:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Timothy Hay, Orchard Grass and Glycerin.

Feeding Directions:
Triple Crown premium forages should be fed at a minimum rate of 1-1.5% of body weight (10-15 lb. for a 1,000 lb. horse) per day if using as a complete hay replacement. Feed 4-6 lb. per day if using as a supplement to normal long stem hay. Feed separately in a feed bin or bucket, or mix with your grain ration. Mixing may help reduce rapid consumption (bolting) and slow the digestive passage through the gut to maximize digestion.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old or contaminated with mold, insects or foreign material.


TRIPLE CROWN
JUST AS MOTHER NATURE INTENDED.
TRIPLE CROWN
ALWAYS BEYOND
PELLETED
HORSE FEED
NATURALS
EquiMix
RICE BRAN
NATURALS
ALFALFA-TIMOTHY
NATURALS
STEAM CRIMPED OATS
NATURALS
WHOLE OATS
NATURALS
GOLDEN GROUND FLAX
NATURALS
ALFALFA
NATURALS
TIMOTHY BALANCE
NATURALS

TRIPLE CROWN®

NATURALS

PELLETED FEED

14% Protein · 6% Fat · 18% Fiber · 1,470 KCAL/lb.

IDEAL FOR: When GMO ingredients and soy are a concern

Guaranteed Analysis:

Crude Protein (min.)	14.00%
Lysine (min.)	0.60%
Methionine (min.)	0.25%
Threonine (min.)	0.50%
Tryptophan (min.)	0.21%
Leucine (min.)	1.00%
Crude Fat (min.)	6.00%
Crude Fiber (max.)	18.00%
ADF (max.)	22.00%
NDF (max.)	35.00%
Calcium (min./max.)	0.75/1.25%
Phosphorus (min.)	0.50%
Magnesium (min.)	0.50%
Potassium (min.)	1.10%
Sodium (min./max.)	0.40/0.75%
Salt (min./max.)	0.25/0.75%
Total Omega-3 Fatty Acids (min.)	1.70%
Total Omega-6 Fatty Acids (min.)	1.70%
Selenium (min./max.)	0.30/0.80 ppm
Zinc (min.)	220 ppm
Manganese (min.)	100 ppm
Cobalt (min.)	0.20 ppm
Copper (min.)	50 ppm
Iron (min.)	100 ppm
Vitamin A (min.)	6,000 IU/lb.
Vitamin D (min.)	1,200 IU/lb.
Vitamin E (min.)	210 IU/lb.
Riboflavin (min.)	3.20 mg/lb.
Thiamine-B1 (min.)	9.00 mg/lb.
Ascorbic Acid (min.)	55 mg/lb.
Biotin (min.)	0.30 mg/lb.
Total Direct Fed Microbials (min.)	3.64 billion CFU/lb.
Lactobacillus Acidophilus Fermentation Product (min.)	908 million CFU/lb.
Enterococcus Faecium Fermentation Product (min.)	908 million CFU/lb.
Bacillus Subtilis Dried Fermentation Product (min.)	25 million CFU/lb.
Saccharomyces Cerevisiae (min.)	1.80 billion CFU/lb.
Cellulase (Trichoderma Longibrachiatum) (min.)*	0.68 million CU/lb.
Protease (Bacillus Licheniformis) (min.)**	1,430 HUT/lb.

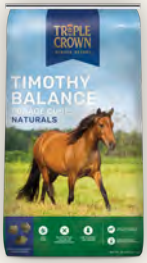
*One cellulase unit (CU) is defined as the amount of activity that will produce a relative fluidity change of 1 (determined with a calibrated viscometer) in 5 minutes in a defined carboxymethylcellulose substrate at pH 4.5 and 40°C"

** One hemoglobin unit (HUT) of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10g per mL of tyrosine in 0.006N hydrochloric acid.

Ingredients:
(Free from Restricted Ruminant Protein Products per Title 21, CFR 589.2000/2001) Non-GMO Dehydrated Alfalfa Meal, Ground Oats, Wheat Middlings, Ground Flaxseed, Flaxseed Oil, Calcium Carbonate, Salt, Sodium Bicarbonate, Dicalcium Phosphate, Yeast Extract, Yeast Culture, Calcium Silicate, Dried Enterococcus Faecium Fermentation Product, Dried Lactobacillus Acidophilus Fermentation Product, Dried Bacillus Subtilis Fermentation Product, Dried Trichoderma Longibrachiatum Fermentation Extract, Dried Bacillus Subtilis Fermentation Extract, Zinc Hydroxychloride, Manganese Hydroxychloride, Copper Hydroxychloride, Vegetable Oil, Butyric Acid, Zinc Oxide, Peppermint Essential Oil, Kelp Meal, Magnesium Oxide, Fenugreek Seed, Lecithin, Anise, Magnesium Proteinate, Selenium Yeast, L-Lysine, DL-methionine, L-Threonine, L-Leucine, Ascorbic Acid (Source of Vitamin C), Niacin Supplement, Biotin, Vitamin A Supplement, Vitamin E Supplement, Thiamine Mononitrate, Beta-Carotene, Calcium Pantothenate, Riboflavin Supplement, Pyridoxine Hydrochloride, Vitamin B12 Supplement, Vitamin D3 Supplement, Choline Chloride, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Folic Acid, Hydrated Sodium Calcium Aluminosilicate, Manganese Sulfate, Lignin Sulfonate, Brewers Dried Yeast, Zinc Sulfate, Copper Sulfate, Cobalt Proteinate, Iron Amino Acid Complex, Ethylenediamine Dihydroiodide, (Propionic Acid, Sodium Benzoate, Potassium Sorbate (Preservatives)).

Feeding Directions:
Feed Triple Crown Naturals Pelleted feed at a rate that maintains your horse's desired body condition and energy level. If feeding less than 6 lb. per day to a mature horse, or 3 lb. per day to a pony, also provide supplemental mineral and vitamin fortification. Provide clean fresh water on a continuous basis and feed good quality hay or provide adequate pasture, along with salt.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.



TRIPLE CROWN®

NATURALS TIMOTHY BALANCE® CUBES

8% Protein • 1.8% Fat • 35% Fiber • 830 KCAL/lb.

IDEAL FOR: When excessive soluble carbohydrates are a concern

Triple Crown Naturals Timothy Balance Cubes are a consistent, convenient, low protein forage replacement or supplement formulated with Timothy hay, beet pulp and specific minerals. Designed for horses with Cushing's disease, insulin resistance, laminitis and other conditions when a nutritious, low nonstructural carbohydrate diet is recommended.

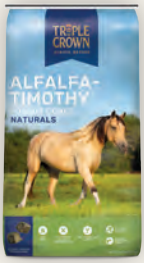
Guaranteed Analysis:

Crude Protein (min.)	8.00%
Crude Fat (min.)	1.80%
Crude Fiber (max.)	35.00%
Calcium (min.)	0.80%
Phosphorus (min.)	0.30%
Magnesium (min.)	0.30%
Copper (min.)	30 ppm
Selenium (min.)	0.20 ppm
Zinc (min.)	90 ppm
Iodine (min.)	0.80 ppm
Manganese (min.)	90 ppm
Moisture (max.)	12%

Ingredients:
Timothy Hay, Beet Pulp, Calcium Hydroxide, Monosodium Phosphate, Magnesium Oxide, Copper Sulfate, Zinc Sulfate, Manganese Sulfate, Sodium Selenite, Calcium Iodate.

Feeding Directions
Feed at 1.5-2% of body weight per day as a hay replacement. As a hay supplement, feed at a rate to maintain body condition, along with hay. Feed in a bucket or feed tub, preferably at ground level.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.



TRIPLE CROWN®

NATURALS PREMIUM ALFALFA-TIMOTHY CUBES

12% Protein • 1.8% Fat • 32% Fiber • 960 KCAL/lb.

IDEAL FOR: Hay shortages, poor hay quality, poor teeth, respiratory problems

Replace all or part of your hay with Triple Crown Naturals Premium Alfalfa-Timothy Forage Cubes. Comprised of pre-bloom alfalfa and immature Timothy hay, the heat produced during the cubing process virtually eliminates dust, mold and fungus.

Guaranteed Analysis:

Crude Protein (min.)	12.00%
Crude Fat (min.)	1.80%
Crude Fiber (max.)	32.00%
Moisture (max.)	12%

Ingredients:
Dehydrated Alfalfa and Timothy Hay.

Feeding Directions:
If replacing all the hay in the diet, feed 1-1.5% of body weight per day. If feeding as a supplement to hay, feed 4-6 lb. of cubes per day. Cubes can be soaked in warm water to loosen for older horses with bad teeth or for horses prone to choking. Store cubes off the floor and out of direct sunlight. Because fiber consumption encourages drinking, always provide plenty of fresh, clean water at all times.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

NATURALS PREMIUM ALFALFA CUBES

15% Protein • 1.5% Fat • 30% Fiber • 980 KCAL/lb.

IDEAL FOR: Hay shortages, poor hay quality, poor teeth, respiratory problems

Replace all or part of your hay with Triple Crown Naturals Premium Alfalfa Forage Cubes. Comprised of pre-bloom alfalfa, the heat produced during the cubing process virtually eliminates dust, mold and fungus.

Guaranteed Analysis:

Crude Protein (min.).....15.00%
Crude Fat (min.).....1.50%
Crude Fiber (max.).....30.00%
Moisture (max.).....12%

Ingredients:

Dehydrated Alfalfa.

Feeding Directions:

If replacing all the hay in the diet, feed 1-1.5% of body weight per day. If feeding as a supplement to hay, feed 4-6 lb. of cubes per day. Cubes can be soaked in warm water to loosen for older horses with bad teeth or for horses prone to choking. Store cubes off the floor and out of direct sunlight. Because fiber consumption encourages drinking, always provide plenty of fresh, clean water at all times.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

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TRIPLE CROWN®

NATURALS RICE BRAN

13% Protein • 17% Fat • 12.5% Fiber • 1,500 KCAL/lb.

IDEAL FOR: Supplementing calories, top line supoort and healthy skin & coat

Developed for underweight and hard working performance horses, Triple Crown Naturals Rice Bran is a GMO free, high fat supplement that provides additional calories to horses requiring more energy without the hyperactivity associated with high sugar and starch diets.

Guaranteed Analysis:

Crude Protein (min.)	13.00%
Lysine (min.)	1.00%
Methionine (min.)	0.45%
Threonine (min.)	0.65%
Tryptophan (min.)	0.35%
Leucine (min.)	1.20%
Crude Fat (min.)	17.00%
Crude Fiber (max.)	12.50%
Acid Detergent Fiber (max.)	10.00%
Neutral Detergent Fiber (max.)	18.00%
Calcium (min./max.)	1.50/2.50%
Phosphorus (min.)	1.50%
Magnesium (min.)	0.70%
Potassium (min.)	1.20%
Zinc (min.)	25.00 ppm
Copper (min.)	12.00 ppm
Selenium (min.)	0.30 ppm
Vitamin E (min.)	25.00 IU/lb.
Omega-3 Fatty Acid (min.)	0.20%
Omega-6 Fatty Acid (min.)	6.00%

Ingredients

Stabilized Rice Bran, Calcium Carbonate, Calcite, Lysine, DL-Methionine, L-Tryptophan, Threonine, L-Leucine

Feeding Directions:

WEIGHT OF HORSE	POUNDS PER DAY TO SUPPLEMENT (LOW-TO-HIGH INTENSITY WORK)
660 lb.	0.5 - 1.5 lb.
880 lb.	1.0 - 2.5 lb.
1,100 lb.	1.0 - 3.0 lb.
1,320 lb.	1.0 - 3.0 lb.
1,540 lb.	1.5 - 3.0 lb.

may be divided into multiple feedings per day

TRIPLE CROWN®

NATURALS GOLDEN GROUND FLAX

23% Protein • 36% Fat • 12% Fiber • 2,050 KCAL/lb.

IDEAL FOR: Omega-3 fatty acid supplementation

Omega-3 fatty acid supplementation helps improve immune function and hair/hoof condition, while helping to reduce inflammation in exercised and older horses. Made of 100% golden ground flax, this product provides 77 g/lb. Omega-3 Alpha-Linolenic Acid and 22 g/lb. of Omega-6 Linoleic Acid, and has a 2-year shelf life.

Guaranteed Analysis:

Crude Protein (min.)	23.00%
Crude Fat (min.)	36.00%
Crude Fiber (max.)	12.00%
Calcium (min.)	0.10%
Calcium (max.)	0.60%
Phosphorus (min.)	0.42%
Omega-3 Fatty Alpha-Linolenic Acid (min.)	77 g/lb.
Omega-6 Fatty Linoleic Acid (min.)	22 g/lb.

Ingredients:
Ground Golden Flax.

Feeding Directions:
Feed at a rate of 6 oz. to 1 lb. per 1,000 lb. of body weight. Not intended as a vitamin and mineral supplement and should be fed in conjunction with a Triple Crown feed.

NOTE: Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

NATURALS WHOLE & STEAM CRIMPED OATS

9% Protein · 3% Fat · 12% Fiber · 1,500 KCAL/lb.

IDEAL FOR: Supplemental energy and calories

Triple Crown Naturals Whole and Steam Crimped Oats are Canadian-sourced, high test weight and GMO free. Triple recleaned and dust free, these grains help optimize performance and health.

Guaranteed Analysis:

Crude Protein (min.).....9.00%
Crude Fat (min.).....3.00%
Crude Fiber (max.).....12.00%

Ingredients:

Whole Oats; Steam Crimped Oats, Respectively.

Feeding Directions:

Provide plenty of fresh, clean water at all times. Keep product fresh in cool, dry storage. Examine product daily. DO NOT use if old, moldy or contaminated with insects.

TRIPLE CROWN®

ESSENTIAL OMEGA BLEND

98% Fat · 30% Omega-3 · 29% Omega-6 · 250 KCAL/oz.

IDEAL FOR: Balancing Omega-3 and Omega-6 fatty acid supplementation

Triple Crown Essential Omega Blend is a unique combination of rice bran oil, flaxseed oil and soy oil. Omega-3 fatty acids have proven to help support immune function and improve hair and hoof condition. In addition, this blend provides extra calories for weight gain and performance.

Guaranteed Analysis:

Crude Fat (min.)	98.00%
Total Fatty Acids (min.)	90.00%
Omega-3 as Alpha-Linolenic Acid (min.)	30.00%
Omega-6 as Linoleic Acid (min.)	29.00%
Unsaponifiable Matter (max.)	4.00%
Iron Free Fatty Acids (as Oleic) (max.)	1.00%
Insoluble Impurities (max.)	0.10%
Moisture (max.)	0.10%

Ingredients
Rice Bran Oil, Flaxseed Oil, and Soy Oil.

Feeding Directions
FOR MAINTENANCE: Feed 2 oz. (use self-measuring marks) per horse, per day. Top dress on normal daily ration.

FOR PERFORMANCE: Feed 4-8 oz. or more (use self-measuring marks) per horse, per day, spread over two or more feedings on normal daily ration.

TRIPLE CROWN

WITH
ButiPEARL® Z EQ
& CLOSTAT®

Boost performance and well-being with powerful technologies designed for equine success—

SUPPLEMENT WITH STRESSFREE®

COMMON REASONS TO SUPPLEMENT:

- Trailering
- Performing
- Change in weather

TRIPLE CROWN®

AVERAGE SOLUBLE CARBOHYDRATE VALUES*

PRODUCT AND FORM	AVG. WSC
Triple Crown Perform Gold, Pelleted	7.7%
Triple Crown Senior Gold, Textured	7.8%
Triple Crown Balancer Gold, Pelleted	8.5%
Triple Crown Senior Active+, Extruded	4.9%
Triple Crown Senior, Textured	8.3%
Triple Crown Complete, Textured	12.0%
Triple Crown Growth, Textured	12.2%
Triple Crown Balancer, Pelleted	8.0%
Triple Crown Lite, Pelleted	4.8%
Triple Crown Low Starch, Pelleted	5.1%
Triple Crown Naturals, Pelleted	7.3%
Triple Crown Safe Starch® Forage	8.1%
Triple Crown StressFree® Forage	8.6%
Triple Crown Alfalfa Forage Blend	8.7%
Triple Crown Grass Forage	8.7%
Triple Crown Timothy Balance® Cubes	8.0%

All feeds have fixed ingredient formulas. Values reflect an estimated analysis of multiple feed samples from across the U.S. with the understanding that geographic differences can impact the results.

When choosing a horse feeds, select feeds and forage with Low Starch + ESC values for horses to prevent tying up disease (EPSM, PSSM, RER), prevention of developmental orthopedic disease (DOD), calmer behavior and reduced insulin resistance for equine metabolic syndrome (EMS) and Cushing's disease. Also, forages with high NSC values (fructans) are more likely to cause laminitis.

WSC is water soluble carbohydrates, ESC is ethanol soluble carbohydrates, NSC is nonstructural carbohydrates and NSC = Starch + WSC.

AVG. ESC	AVG. STARCH	AVG. STARCH + AVG. ESC	% NSC =g/lb.
5.6%	9.7%	15.3%	17.4%=78.99g
5.4%	3.6%	9.0%	11.4%=51.75g
6.4%	7.8%	14.2%	16.3%= 74.00g
3.8%	8.1%	11.9%	12.9%= 58.57g
5.3%	6.4%	11.7%	14.7%= 66.73g
8.8%	11.5%	20.3%	23.5%=106.69g
10.5%	12.4%	22.9%	24.6%=111.68g
7.2%	3.1%	10.3%	11.1%=50.39g
4.8%	5.3%	9.5%	10.1%=45.85g
3.1%	9.9%	13.0%	15.0%=68.10g
7.0%	14.8%	21.8%	22.1%-100.33g
4.5%	1.8%	6.3%	9.9%=44.94g
6.6%	1.1%	7.7%	9.7%=44.03g
8.0%	4.7%	12.7%	13.4%=60.83g
6.1%	2.1%	10.8%	10.8%=49.03g
6.7%	2.0%	8.7%	10.0%=45.40g

*Estimated values determined by Equi-Analytical, Ithaca, NY. Equi-Analytical makes no claims with regard to the accuracy of the data. Link: http://equi-analytical.com/common-feed-profiles/

**The following coefficients of variation (cv) can be associated with the carbohydrate analyses. These should reasonably account for both sampling and analytical variation, though as you know, poor sampling can lead to much larger variation. The coefficients of variation (cv) for starch is 10%, WSC is 15% and ESC is 15%. For example, a feed with a WSC value of 10% should be expected to range from 8.5 – 11.5% and a WSC value of 20% to range from 17 – 23%. In addition, there are variables on ingredients between suppliers that could be as much as an additional 5% to 10% per ingredient.

TRIPLE CROWN®

DENSITY MEASUREMENTS

PRODUCT AND FORM	POUNDS PER DRY U.S. QUART
Triple Crown Perform Gold, Pelleted	1.31
Triple Crown Senior Gold, Textured	1.08
Triple Crown Balancer Gold, Pelleted	1.25
Triple Crown Senior Active+, Extruded	0.81
Triple Crown Senior, Textured	1.08
Triple Crown Complete, Textured	1.01
Triple Crown Growth, Textured	1.15
Triple Crown Balancer, Pelleted	1.25
Triple Crown Lite, Pelleted	1.42
Triple Crown Low Starch, Pelleted	1.31
Triple Crown Naturals, Pelleted	1.25

TRIPLE CROWN®

DIGESTIBLE ENERGY VALUES

PRODUCT	DIGESTIBLE ENERGY PER POUND (AS FED BASIS) KCAL/LB
Triple Crown Perform Gold	1,800
Triple Crown Senior Gold	1,800
Triple Crown Balancer Gold	1,300
Triple Crown Senior Active+	1,535
Triple Crown Senior	1,546
Triple Crown Complete	1,700
Triple Crown Growth	1,620
Triple Crown Balancer	1,266
Triple Crown Lite	1,150
Triple Crown Low Starch	1,428
Triple Crown Naturals	1,470
Triple Crown Safe Starch® Forage	1,100
Triple Crown StressFree® Forage	1,150
Triple Crown Alfalfa Forage Blend	960
Triple Crown Grass Forage	920
Triple Crown Timothy Balance® Cubes	830

TRIPLE CROWN®

FEEDING RATES

FEED	POUNDS PER DAY*
Triple Crown Perform Gold	6
Triple Crown Senior/Senior Gold	6
Triple Crown Senior Active+	5
Triple Crown Complete	5
Triple Crown Growth	6
Triple Crown Balancer/Balancer Gold	1
Triple Crown Lite	2
Triple Crown Low Starch	6
Triple Crown Naturals Pelleted	6

NOTE: Pounds per day listed above reflect minimum required to meet vitamin and mineral requirements.

*Assumes 1,000 lb. horse. Adjust for activity level, age, hay quality, compromised dentition and body condition.

FEEDING INSTRUCTIONS

Nutritional requirements vary from horse to horse. For general feeding instructions, see product packaging. For a customized feeding regimen, please email info@triplecrownfeed.com or call 800.451.9916 to speak with a Triple Crown feed expert. To help ensure proper feeding, contact us for a free Triple Crown measuring cup at 800.451.9916.


SAFE STARCH
SENIOR GOLD
COMPLETE
PERFORM GOLD
SENIOR
BALANCER GOLD
STRESS FREE

THE INTERCONNECTIVITY OF LAMINITIS, INSULIN AND METABOLIC DISORDERS.

Laminitis is a debilitating condition that, when severe, can be fatal. Laminitis occurs when the laminae (the tissue that attaches the coffin bone to the hoof wall) becomes inflamed and the bone begins to pull away from the hoof or even penetrate the sole of the hoof. Depending upon the severity, outcomes can range from mild soreness to extreme pain.

Laminitis is beginning to be viewed not as an isolated disease, but instead as a syndrome that is the result of other systemic issues. This means that we need to identify and treat the underlying cause of the laminitis in addition to directly addressing the associated lameness and pain.

The two most common types of laminitis are:

- Sepsis Associated Laminitis (SAL) – a systemic inflammatory response – that can be caused by colitis, retained placenta or acidosis from grain overload. Studies indicate that only about 10-12% of laminitis cases are related to SAL.
- Endocrinopathic Laminitis (EL) caused by issues related to disorders such as Equine Metabolic Syndrome (EMS) or Pituitary Pars Intermedia Dysfunction (PPID) that is sometimes referred to as Cushing's disease. EL also includes Pasture Associated Laminitis (PAL). Studies indicate that approximately 90% of laminitis cases fall into this category.

HYPERINSULEMIA AND LAMINITIS

As mentioned, EMS and PPID are common underlying causes for Endocrinopathic Laminitis. EMS is not a disease, but rather a description of risk factors for the most common type of laminitis (EL). Insulin dysregulation is a key component of EMS and often results in hyperinsulemia (abnormally high insulin levels). EMS is typically seen in middle-aged horses, and these horses are more likely to be obese, suffer from hypertension and exhibit increased fasting triglyceride (a type of fat found in the blood) levels.

How might EMS lead to laminitis? Models indicate that hyperinsulemia is associated with laminitis, and this has led to the development of a couple of different theories. One describes how high levels of insulin in the blood create a cascade of events that lead to the constriction of blood vessels in the tissues in the hoof. This would limit both nutrient and oxygen flow to the tissues, which could result in laminitis. The other is that abnormally high insulin levels trigger excess production of specific growth factors that weaken certain tissues in the hoof, again leading to the onset of laminitis.

PPID is an endocrine or hormone disorder and is usually seen in older horses. Studies have shown that horses with PPID are more likely suffer from hyperinsulemia and laminitis. Again, the connection between abnormal insulin levels and laminitis appears.

TREATMENT AND MANAGEMENT OPTIONS

There are several approaches to reduce the incidence or severity of laminitis. First, consult your veterinarian. Your vet will be able to diagnose whether your horse has EMS or PPID. Following a positive diagnosis, a team made up of a farrier, nutritionist and feed company representative can be utilized to develop a proper management and nutrition plan for PPID and EMS.

Any "at-risk metabolic horse" with a history of laminitis or documented insulin dysregulation should be fed diets low in soluble nonstructural carbohydrates (NSC) – sugars and starches. Both lush, fast-growing and froststressed pastures are higher in NSC and should be avoided. An at-risk horse could be "pushed over the edge" by consuming grasses from these types of pasture and begin to exhibit pasture associated laminitis (PAL). Grazing muzzles can help control intake, and suggested grazing times should be focused on early morning when sugars are lowest in the plants. Some laminitis cases cannot tolerate any pasture and must be turned out on dry lots for exercise. The NSC content of hays should also be monitored, and if needed, hay can be soaked in water to reduce soluble carbohydrates.

HOW CAN CHROMIUM HELP?

Preliminary equine research suggests that supplemental chromium could also help support horses with insulin resistance or dysregulation, but further case-controlled studies are needed. Daily chromium supplementation, in combination with the management plans discussed, can be part of a comprehensive support solution. Chromium propionate has been proven to improve insulin sensitivity and may lead to better outcomes in these horses.

LOOKING FOR MORE RESOURCES?

Visit kemin.com/chromiumeq to learn more

SCAN TO LEARN MORE

KemTRACE® CHROMIUM

BENEFITS OF CHROMIUM

Insulin plays a key role in "unlocking the door" to the cell so blood glucose can enter and be used for energy. Chromium improves insulin function by increasing insulin receptor activation, leading to efficient clearance of glucose from the bloodstream.[1] Maximizing each cell's utilization of glucose means the horse can more efficiently use energy for body upkeep, immunity, reproduction and performance.

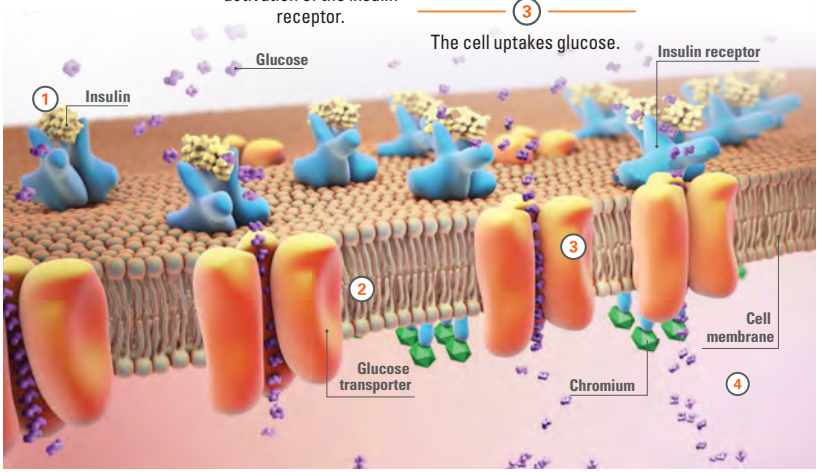
BIOAVAILABILTY

KemTRACE® Chromium is a highly bioavailable, organic source of chromium propionate and the only source reviewed by the U.S. FDA. The chromium in KemTRACE Chromium is readily absorbed in the small intestine and transported throughout the body to be used by cells related to the following functions:

- ✔ Muscle performance
- ✔ Immune function
- ✔ Reproduction
- ✔ Growth
- ✔ Lactation

KemTRACE CHROMIUM
MODE OF ACTION

1. Insulin stimulates glucose uptake.[11]
2. Readily available chromium from KemTRACE® Chromium optimizes the activation of the insulin receptor.
3. The cell uptakes glucose.
4. The additional glucose allows more energy to be available for proper cell function, which can boost immunity, growth, health and performance.



RESPONSE BASED ON HIERARCHICAL NEEDS

Approximately 60% of a mammal's daily energy intake is for the basic processes needed for life, such as digestion and respiration.[2] Any additional energy is stored or used for immune function, reproduction, physical activity or growth. By increasing insulin sensitivity and mobilizingmore blood glucose into tissue, feeding supplemental chromium can result in improved health, performance and energy based on the animal's hierarchy of needs.

UPKEEP AND BODY CONDITION

- More efficient use of glucose results in more glucose available for energy demands higher up in the hierarchy of needs.

HEALTH AND IMMUNITY

- Activated immune cells need a large amount of energy.
- Glucose is the only energy source that activated immune cells can use.[3]
- Increased glucose uptake by the immune cells may help the horse mount an immune response, resulting in a healthier horse.

ATHLETIC PERFORMANCE

- Increased glucose utilization can positively impact performance.
- Low muscle glycogen levels in horses (less than 50% of normal) can impair physical performance.[4]
- Increasing the rate of glucose uptake in skeletal muscle cells in order to replenish their glycogen stores may improve performance.

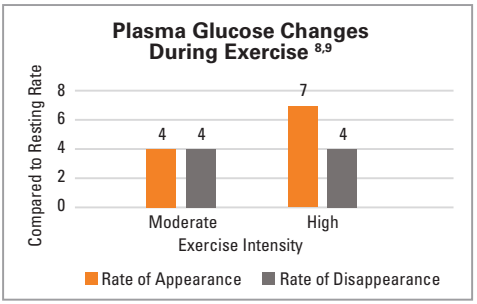
During intensive exercise, glucose's rate of appearance is increased 7x compared to at rest. However, the rate of disappearance (usage) plateaus at 4x vs rest. Increasing the utilization of additional blood glucose could lead to improvements in athletic performance.

REDUCE THE NEGATIVE IMPACTS OF STRESS

- Chromium supplementation has been shown to lower plasma cortisol – a stress hormone – levels by up to 25%, thereby reducing the negative impacts of stress.[5]

REPRODUCTION

- Abnormal insulin levels can negatively impact estrus cycles and follicle development. Improving insulin sensitivity may improve the ability to produce viable follicles and become pregnant. [6]
- Reproduction is an energetically intensive activity and improved glucose utilization can help maintain energy balance which may improve the ability to become and stay pregnant.[7]
- Abnormal insulin levels may lead to decreased embryonic weight and negatively impact placental development. Improving insulin sensitivity could lead to improved birth weights and livability.[6]
- Improved glucose utilization can lead to improved milk production during lactation. [8]



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PTP-3535
Rev. May 2023

Horses Fed ButiPEARL® Z EQ and CLOSTAT® During NSAID Administration had Fewer and Less Severe Gastric Ulcers[1]

Non-steroidal anti-inflammatory drugs (NSAIDs) such as phenylbutazone (Bute) are among the frequently administered pharmaceuticals in equine veterinary medicine. They are generally considered very safe; however, their tendency to cause gastrointestinal ulcers is well established.

The goal of this study was to determine the effect of CLOSTAT® and ButiPEARL® Z EQ on the incidence and severity of squamous and glandular ulcers in horses being treated with Bute.

Materials & Methods

Thirty-six horses were randomly selected from over seventy available horses. Each horse in triplet was matched based on age (+/- 2 years), breed, sex, and weight (+/- 100 lbs.) and then randomly assigned to one of three treatments (12 horses per treatment):

- Control: No Bute and no ButiPEARL Z EQ (BP Z EQ) or CLOSTAT
- Bute: Phenylbutazone (4.4 mg/kg of body weight every 24 hours) and no ButiPEARL Z EQ or CLOSTAT
- BP Z EQ and CLOSTAT: Phenylbutazone (4.4 mg/kg of body weight every 24 hours) with ButiPEARL Z EQ and CLOSTAT (4 g/h/d of each in 0.5 lbs. pellets)

Groups were housed side-by-side, separated by fences in identical pastures. When the horses were moved to their assigned pastures to begin the 14-day acclimation period from -28d to -14d (Figure 1), they were put on a basal diet of 3 lbs. of SafeChoice® pellets (fed using individual feed bags assigned to each horse) along with free choice coastal hay from the same cutting.

On -14d, ten of the twelve horses in each treatment were evaluated to determine that they did not have any underlying health issues, and the extra two horses were released from the study. The extra horses were needed to ensure that each treatment would contain ten horses. The horses assigned to the BP Z EQ and CLOSTAT treatment had their basal diet top dressed with pellets containing BP Z EQ and CLOSTAT. The other treatments received that same top dressing of pellets, but they did not contain BP Z EQ or CLOSTAT. Horses were placed into individual stalls for all feedings and kept there until all the pellets had been consumed.

On 0d, all horses were placed into their individual stalls. Feed was withheld for 18 hours and water for 3 hours prior to gastroscopy (d1 of the experiment). The stomach was examined and assigned a score by a single observer blinded to treatment group. This same procedure was completed for the 10d gastroscopy.

On 1d, Bute was administered by using an oral paste as a carrier to both the Bute and the BP Z EQ and CLOSTAT groups. The control group was given an oral

paste that did not contain Bute. This was done every 24 hours up to 10d of the experiment.

Ultimately two horses were removed from the study, one due to colic (BP Z EQ and CLOSTAT treatment group) and one due to behavior (Bute treatment group).

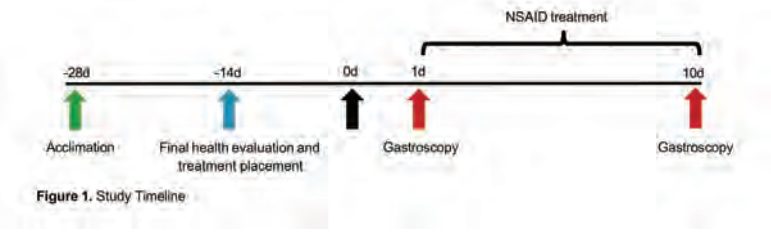

Figure 1. Study Timeline

Results

Squamous Ulcer Scores

On 0d, no evidence of squamous ulcers was found in any of the horses. On 10d, there was a significant difference in squamous ulcer scores between the control and Bute groups with the BP Z EQ and CLOSTAT group being the intermediate (Figure 2, P=0.02). There was an association with treatment to squamous scores using the Chi-square test (Figure 3, P=0.04) with the BP Z EQ and CLOSTAT group having fewer horses with severe ulcers (scores of 2 and 3) than the Bute treatment group

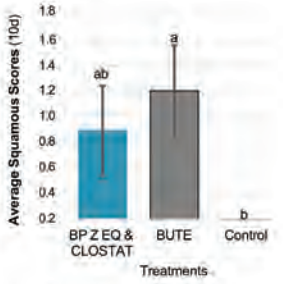

Figure 2: Average Squamous ulcer scores at day 10. Avg ± SE. Superscripts indicate significant differences between treatments, *P*=0.02.

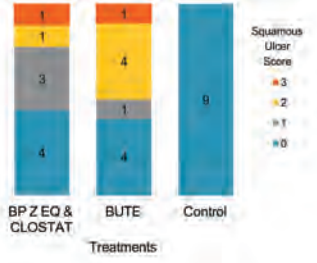

Figure 3: Squamous ulcer scores at day 10 for each group. No. indicates number of horses that received each score. Chi-square tests, *P*=0.049.

Glandular Ulcer Scores

On 0d, no evidence of glandular ulcers was found in any of the horses. On 10d, there were no treatment differences with average glandular ulcer scores (Figure 4) and no treatment association with scores according to the Chi-square test (Figure 5). However, on 10d, one control horse received a score of 1 that resulted in no treatment differences. If the control horse was removed from the statistical analysis, it would have resulted in statistical treatment differences similar to those seen in the squamous scores with BP Z EQ and CLOSTAT being intermediate.

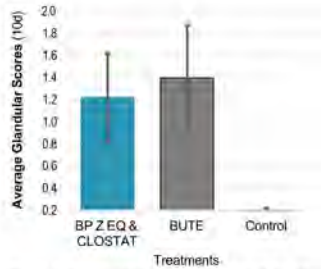

Figure 4: Average Glandular ulcer scores at day 10. Avg ± SE.

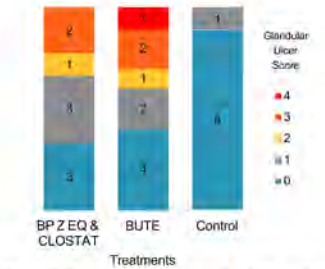

Figure 5. Glandular ulcer scores at day 10 for each group. No. indicates number of horses that received each score.

Conclusion

Overall, ButiPEARL Z EQ and CLOSTAT showed an effect on squamous and glandular ulcers. The horses fed a combination of ButiPEARL Z EQ and CLOSTAT had numerically lower average squamous and glandular ulcer scores than the Bute treatment group. Additionally, the number of horses with more severe squamous and glandular ulcers (grades 2, 3 and 4) were lower in the horses in the ButiPEARL Z EQ and CLOSTAT treatment group compared to those in the Bute treatment group.

KEMIN
Technical Literature

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LEAKY GUT SYNDROME

KEMIN EQUINE

SUMMARY

Leaky gut syndrome (LGS) occurs when the lining of the gastrointestinal (GI) tract is compromised, allowing harmful substances to cross the intestinal barrier and be absorbed into the bloodstream. A leak into the bloodstream will cause intestinal inflammation, resulting in various systemic problems for your horse.[1] These leaks often start slowly, but with time can result in a wide variety of health and performance issues you see every day in your horse.

SYMPTOMS

Quite often your horse simply seems "off" and is not performing at their previous level or a level that is expected. Personality or behavior has changed (dull or irritable) and they are often "girthy" when saddled. You may see occasional loose manure, skin allergies or recurrent low-grade colic.[2] The result is that your horse does not feel well, and their overall performance and well-being is being negatively impacted.

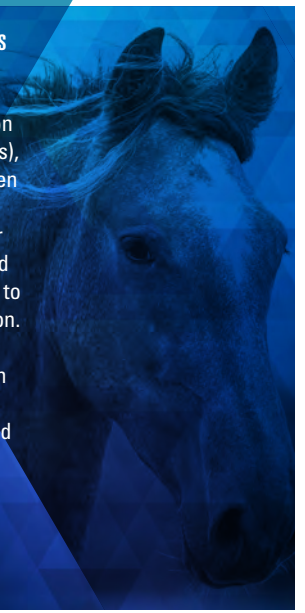
CAUSES

Pathogenic bacteria, mold toxins, parasites and common stressors such as exercise, training, transportation, heat and even simple hay changes, can all lead to LGS.[1] Any of these stressors can result in damage to the tight junctions of the intestinal lining that are an important barrier between toxic intestinal contents and the bloodstream. Repeated exposure to any of these common stressors will result in small, recurrent intestinal leaks, causing greater health and performance issues over time.

PREVENTING LGS

The best way to prevent LGS or help to heal a leaky gut is through good nutrition and attention to gut health.

An exciting area in horse nutrition is the incorporation of fermentable fibers (such as beet pulp and soy hulls), probiotics and prebiotics. Probiotics backed by proven horse research, such as the PB6 in CLOSTAT®, are a logical approach to support overall gut health in your horse. Specific fatty acids, such as butyric acid found in ButiPEARL® Z EQ, are also proven to be protective to the intestinal lining and help in tight junction formation. Through novel nutritional science, horses can now be fed supplemental butyric acid to ensure the health of intestinal cells. Feeding nutrients that support gut health will help mitigate the everyday "slow leak" and improve your horse's health and wellbeing.



CLOSTAT® ButiPEARL® Z EQ

LEARN MORE AT **kemin.com/leakygut**

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CLOSTAT®

CLOSTAT® contains a proprietary, patented strain of *Bacillus subtilis*, PB6. Kemin selected PB6 — a unique, naturally-occurring probiotic — because it helps maintain the balance of microflora in the intestinal tract in an array of animals, including horses.

MODE OF ACTION

The PB6 in CLOSTAT has been found to secrete one or more biocidal proteins that are inhibitory towards certain strains of pathogenic bacteria such as *Clostridium perfringens* and other equine-specific pathogens. These proteins disrupt the membrane of bacteria, causing leakage of the cell contents and ultimately killing the pathogenic bacteria without harming the beneficial gut microflora.

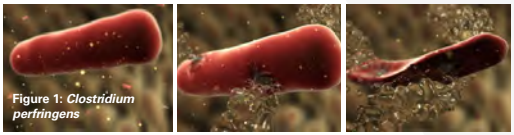

Figure 1: *Clostridium perfringens*

WHY IS THIS IMPORTANT?

Pathogenic bacteria like *C. perfringens* create lesions in the small intestine that compromise the integrity of the intestinal lining. Harmful pathogens and toxins can then pass through the intestinal lining into the bloodstream, resulting in intestinal inflammation and disease. By inhibiting the growth of pathogenic bacteria, the PB6 in CLOSTAT helps maintain a healthy microbial balance in the horse's digestive tract.

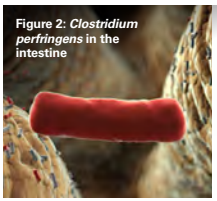

Figure 2: *Clostridium perfringens* in the intestine

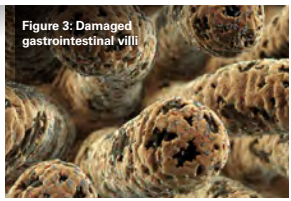

Figure 3: Damaged gastrointestinal villi

CLOSTAT FEATURES

- **Contains the probiotic PB6, a unique, patented strain of *Bacillus subtilis*[1]**
- **Research-proven efficacy of PB6 against equine-specific pathogens**
- **Stable under normal pelleting conditions**
- **Demonstrated equine safety in foals and adults[2,3]**
- **Stable during processing and packaging**
- **Stable when blended with other feed ingredients**

PB6 VS. EQUINE-SPECIFIC PATHOGENS

PB6 has been proven to inhibit the growth of several equine-specific bacterial pathogens, including *Clostridium difficile, Clostridium perfringens, Streptococcus equi* and *Rhodococcus equi* [4,5] (confirmed equine pathogen isolates obtained from the Iowa State University Vet Diagnostic Lab). In the images below, the antagonistic activity appeared as clear zones between the PB6 (vertical streak) and the bacterial cultures (horizontal streaks).

Figure 4. Effect of PB6 against *Clostridium difficile*

Figure 5. Effect of PB6 against *Clostridium perfringens*

Figure 6. Effect of PB6 against *Streptococcus equi*

Figure 7. Effect of PB6 against *Rhodococcus equi*

CLOSTAT VS. THE COMPETITION — INHIBITION OF PATHOGENS, THERMAL STABILITY AND pH TOLERANCE[6]

	Inhibition of Pathogens				
***Bacillus subtilis* probiotics**	***Clostridium perfringens* ATCC 13124**	***Salmonella typhimurium* ATCC 14028**	***Escherichia coli* CVVC 1550**	**Thermal stability**	**Survivability in low pH**
PB6	+	+	+	+	+
Competitor A	+	+	+	+	-
Competitor B	+	+	-	-	NA
Competitor C	-	-	-	NA	NA
Competitor E	+	-	-	+	+
Competitor F	-	-	-	NA	NA
Competitor G	-	-	-	NA	NA
Competitor H	-	-	-	NA	NA
Competitor I	-	-	-	NA	NA
Competitor J	-	-	-	NA	NA

KEMIN EQUINE

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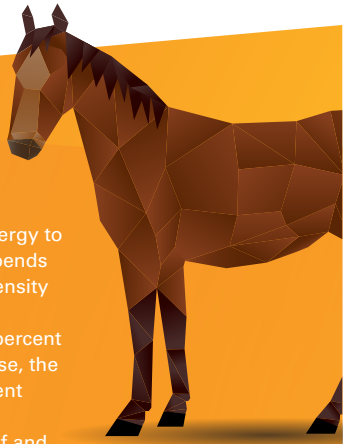
KemTRACE® CHROMIUM



GLYCOGEN AND THE ATHLETIC HORSE

Carbohydrates and fats supply the bulk of the energy to horses during exercise and use of each often depends on the intensity of the exercise. During lower intensity exercise, approximately 42 percent of energy is supplied through the oxidation of fat, versus 58 percent from carbohydrates. During high intensity exercise, the ratio can shift to 30 percent from fat and 70 percent from carbohydrates.[1] Regardless of intensity, top performance requires both an adequate supply of and efficient use of carbohydrates.

Cells take up carbohydrates from blood plasma in the form of glucose, which is stored as glycogen in the liver and skeletal muscle. For optimal performance, horses must effectively utilize plasma glucose and maintain cellular glycogen stores. Carbohydrate availability and its impact on physical performance in horses are connected in two ways:[1]

1. Increased time to fatigue when supplemental glucose is administered intravenously (IV) during moderate exercise
2. Negatively impacted performance when muscle glycogen stores are depleted prior to exercise

This research demonstrates the importance glucose/glycogen metabolism to physical performance.

GLUCOSE UTILIZATION

Providing glucose through IV is not a practical solution. Ensuring the diet provides adequate levels of glucose or glucose precursors, as well as the efficient use of the available glucose, is ideal.

Unlike humans, plasma glucose levels in horses can increase during exercise because of the mismatch between glucose's rate of appearance (Ra) due to the breakdown of glycogen in the liver and the rate of disappearance (Rd) or uptake by skeletal muscle cells. At moderate levels of exercise, horses can experience a four-fold increase in both Ra and Rd.[3] However, at higher intensities, while the four-fold increase in Rd is maintained, Ra can increase to seven times higher than normal – resulting in a significant increase in plasma glucose levels.[4] **If skeletal muscle cells could further increase their uptake of glucose, it might be possible to improve performance or delay fatigue.**

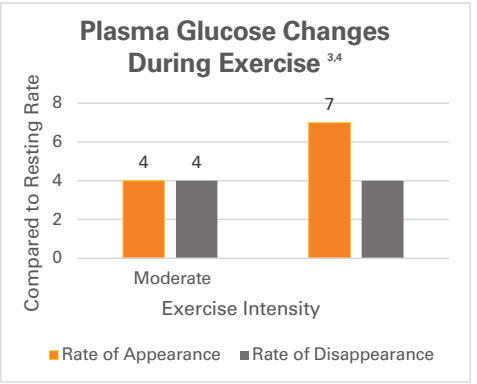
GLYCOGEN LEVELS

Low levels of skeletal muscle glycogen (approximately 50 percent of normal) have been shown to negatively impact performance.[2] One 800-meter sprint can deplete glycogen stores by up to 65 percent.[1] Multiple events during the day or consecutive days of competition or training could quickly deplete glycogen levels to the point at which performance is impacted or horses become easily fatigued. The rate of glycogen synthesis is considerably lower in horses than in humans. Once significantly depleted, it can take 48-72 hours to replenish glycogen stores.

There are two thoughts as to why horses have such a slow rate of glycogen replacement:[1]

1. The gastrointestinal function in horses is not well suited to digest starch and other soluble carbohydrates, resulting in limited glucose availability
2. The mechanisms involved in glycogen synthesis are not as productive as in other species

WHAT COULD YOUR HORSE DO WITH ADDITIONAL GLUCOSE?



IMPACT ON GLUT4 RECEPTORS

GLUT4 is the primary glucose transporter, responsible for facilitating movement of glucose into cells.[5] When GLUT4 activity is disrupted, glucose transport and insulin sensitivity are significantly reduced.[6] While research in glycogen synthesis is limited in horses, supplemental chromium in rats and beef cattle has been shown to increase movement of GLUT4 receptors to the surface of skeletal muscle, resulting in improved glucose uptake metabolism.[7,8,9]

For more information, visit
www.performancehorsenutrition.com.

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