

What is a Probiotic?

A Probiotic (pro meaning life) is a substance that promotes and stimulates the growth of microorganisms, especially intestinal microflora.

How do probiotics work in horses?

Probiotics stimulate the bacterial population so necessary to the equine normal digestive processes, by producing enzymes. These enzymes catalyze the breakdown of complex feed into lactic acid which is a valuable source of energy and which helps regulate acidity in the intestinal tract.

What disturbs the horses gut flora?

Stress, illness and age can disrupt beneficial microflora in the horses gut. These microflora or beneficial bugs are important in the proper digestion of feed products in the large intestine and cecum. They break down and ferment the fibrous portions of the horses' diet into a form that can be utilized by the horse; create B vitamins; create nutrients essential to reduce the risk of overgrowth of harmful bacteria and microflora. When the hind gut becomes acidic as can happen with high grain diets, stress, illness and age the beneficial flora decrease and the harmful flora flourish. This change in gut flora causes digestive upset and potential release of endotoxins (a precursor to laminitis). With the help of Equine Choice the beneficial gut flora can remain at a level to overcome the harmful bacteria.

What is Equine Choice?

Equine Choice is a concentrated source of protected, live, reproducible Saccharomyces Cerevisiae Yeast (proprietary to Equine Choice), Enzymes, B-Vitamins and Amino Acids to be used as an animal feed additive. Six principal enzymes, which aid in digestion, are sourced from plant digest. Probiotics produce amylase and protease enzymes known to assist animal digestion. Probiotics also produce nutrients, which feed and stimulate digestive bacteria in the gut. It is palatable and stimulates appetite.

What does Equine Choice Contain?

- Proprietary Saccharomyces Cerevisiae Yeast which is a heat stable, live, protected reproducible yeast. The yeast uses the free oxygen in the gut to grow. As the oxygen is used up conditions change so that lactic acid bacteria do not multiply, therefore removing the amount of acid in the gut and returning it to a more normal condition.
- <u>Beta-Glucans & Mannans</u> which are pure saccharomyces cerevisiae yeast cell wall and a source of Mannan Oligosaccharides (MOS) derived from primary inactivated yeast. This natural nutritional supplement is shown to support a healthy immune system and may increase its reaction capacity.
- Organic Oat Bran (Carrier) which is a highly concentrated rich source of Beta-Glucans and free of potential Mycotoxin
- <u>Bacillus Species (Licheniforms & Subtillus</u>) These are superior strains that
 are <u>heat and freeze stable, live bacteria</u>. They introduce microorganisms in the feed
 which stabilize the gastrointestinal system and participate in the digestion of feed
 components.



- Beta-Glucanse (Enzyme) which degrades cellulose
- **Xylanase (Enzyme)** which stimulates growth rates by improving digestibility. Xylanase thins out the gut contents and allows increased nutrient absorption and increased diffusion of the pancreatic enzymes in the digesta. It also changes hemicellulose to sugars so that nutrients formerly trapped within the cell walls are released.
- <u>Amylase (Enzyme)</u> which breaks down starch into a complex sugar that can be used in the body.
- <u>Protease (Enzyme)</u> which aid in the breakdown of protein into a form that can be utilized.
- <u>Lipase (Enzyme)</u> which performs essential roles in the digestion, transport and processing of dietary fats.
- Cellulase (Enzyme) which breaks down cellulose in plants for enhanced digestion.

How is the yeast unique?

Equine Choice contains a proprietary Saccharomyces Cerevisiae Yeast, which is unique in that it is protected. The specialized outer coating is unique to this product.

Why is the protection so important?

When most probiotics, the unprotected ones, are killed off in significant numbers, when they come into contact with the acidic environment of the stomach. The specialized outer coating dissolves at a slow rate allowing a significant amount of product to pass through the stomach and into the hind gut - in a live and reproducible state. It is the hind gut where microflora's break down fibre for utilization by the horse; this is where a probiotic is required.

Will the yeast affect or create a yeast infection in my mares?

No, the Saccharomyces Cerevisiae Yeast used is a pure cultured product. Other yeast products are byproducts of other manufacturing processes and therefore may not be pure, which may result in issues with mares. The type used in Equine Choice is pure and therefore will not adversely affect your mares.

How does it work?

- Saccharomyces Cerevisiae Yeast scavenges oxygen; stimulate growth factors therefore increasing number of <u>Beneficial</u> organisms
- Scavenge sugars, and stimulate lactate utilizers decreasing lactate acid and stabilizes ph levels
- MOS is a non-digestible protein carbohydrate which means when it is added to the
 horses total feed its complex nature prohibits it from being digested by the animal.
 This in turn makes it available to be used as a nutrient by the good bacterial or flora in
 the gut. The beneficial bugs grow rapidly in the gut and provide an improved defense
 against harmful bacteria.



What are benefits of using Equine Choice for horses?

- Maintain microbial balance in the gut.
- Stimulates natural bacteria in the digestive system for improved feed conversion and enhanced appetite.
- Stimulates and maintains optimum digestion of protein and fibers to ensure peak performance
- To maintain consistent and optimum digestive tract and hind gut pH balance.
- Improved digestibility of fiber, starches, fats and proteins.
- · Less digestive upsets
- Enhances appetite
- Stimulates immune system and overall health by ensuring proper absorption of energy and nutrients.
- Minimizes acidosis, colic and laminitis
- · Survives pre-caecal digestion

What Research is there to support Equine Choice claims?

Independent research conducted by Dr. Cuddeford, Professor of Animal Health and Welfare, University of Edinburgh, Scotland reports that:

- 33% of this particular strain of Saccharomyces Cerevisiae Yeast reaches the hind gut alive
- Fiber digestion improved 13% in grass hay and 8% in alfalfa hay

How do I store the Equine Choice?

Product should be kept in cool dry locations with the lid tightly closed to prevent moisture from entering the product.

What sizes of Equine Choice containers are there?

- 80 cc tube of oral paste. When fed at 15-20 cc per dose the tube would last 4-5 doses.
- Granular product is supplied in: 1.7 kg pail (34 day supply for one horse); 4.2 kg pail (84 day supply for one horse); and 20 kg tub (80 day supply for five horses).

When should I use the oral paste?

The paste is used for situations requiring a high number of CFU's to be delivered into the intestinal tract immediately. Common situations would be colic, diarrhea, during antibiotic therapy, chemical de-wormings, new foals, stressful situations such as weaning, trailering, shows or racing.

When should I use the granular product?

Dry granular type supplement meant for top dressing on feed. Use for maintenance on performance horse or horses difficult to keep weight on due to age or health conditions. This supplement can be mixed into dry or wet feed JUST PRIOR TO FEEDING. Do not mix into rations ahead of time as the live yeast contents when exposed to moisture may germinate in the bucket instead of in the horse!



What happens if too much is given to a horse?

The vitamins contained in the product are water soluble so they are not toxic. The probiotic ingredients only enhance digestion and amounts above what the digestive system can use will be utilized as food. No harm will be done.

What sets Equine Choice apart from other products?

- Ingredients that are stable in temperature fluctuations found in transport and storage
- Ingredients that are active, live and reproducible not fibre.
- Very high CFU (Colony Forming Units).
- Independent research verifying product is viable and does reach the hind gut alive.
- Long shelve life.
- Palatable.
- Sold in tightly resealable container to protect live contents.
- Organic oat bran carrier with very high levels of Beta-Glucans.

How do probiotics work in foals?

Foals are born with a bacteria-free gut. It is necessary to immediately establish lactobacilli populations shortly after birth, otherwise, pathogenic organisms can populate the gut and cause problems. The use of probiotics during stressful periods will maintain a favourable microbial balance in the gut. The microbial balance in the gut is upset during times of stress by decreasing lactobacilli levels and increasing pathogenic bacterial levels. This results in morbidity and mortality problems. It is important in time of stress to ensure the delicate balance of the foal's intestinal tract is kept undisturbed.

I am presently using the Original Blend of Equine Choice, how do I transition my horse onto the Generation 2 Equine Choice Product?

As with any feed changes transition should be slow, start with $\frac{1}{4}$ - $\frac{1}{2}$ the feeding amount for a couple of days, then increase incrementally until you are on the full recommended feeding rate. This allows the horses taste senses and digestive tract to become adjusted to the changes slowly.

Other Animal Probiotics Available for Small Animal Pets (Best In Show), Beef Cattle, Sheep, Goats and Poultry (Stockmans Choice) and Dairy Cattle (Dairymans Choice).