

YEAST: DOES YOUR HORSE NEED IT?

Yeast is shown to improve digestion, decrease lactic acid buildup after exercise and enhance overall performance in horses.

By Paul Kropp

Yeast brings to mind images of bread rising in the kitchen. Or maybe thoughts of microbreweries and beer trucks. But what about horse feed? Recent data shows that adding yeast culture to feed formulas directly corresponds with improved digestion, decrease in lactic acid after exercise, better utilization of protein in the diet, enhanced overall fitness levels and improved tissue and muscle reproduction and repair. Indirectly, this could lead to fewer incidents of diarrhea, colic, laminitis and a variety of other equine health and performance problems, while simultaneously improving performance and well-being of the horse.

Fussy Stomachs

Because horses are non-ruminant herbivores with unique digestive systems designed to maximize fibrous feedstuffs, most of their food products are indigestible without the help of intestinal bacteria.

4-H horse

In a digestive process called fermentation, these intestinal bacteria (called microbes) break down the fibrous portions of the diet into secondary products that are utilized for energy. Fermentation occurs in the large intestine, specifically the cecum and large colon. The large intestine, commonly referred as the hind gut, is the largest component of the horse's gastrointestinal tract. Feed particles that are unaffected by enzymes in the small intestine are subject to fermentation in the hindgut – a time-consuming procedure, considering that ingesta sometimes stay in the hind gut for upwards of 36-48 hours.

Conversion to Energy

In the hind gut, microbes produce volatile fatty acids (or VFA's), which are very short-chain fats absorbed by the blood and utilized for energy. VFA's can contribute more than 30-70 percent of the horse's energy requirement. The hind gut also has the ability to digest those starches that were unaffected in the small intestine. Unfortunately, diets with heavy starch content can put extra stress on the digestive tract. In some cases, there are not enough enzymes to digest all of these starches, and problems can result if excess starch reaches the hind gut.

Dying Microbes

As the microbes in the hind gut begin to break down these starches through the starch fermentation process, the very sensitive ecosystem of pH and microbes can be adversely affected. As starches are fermented, lactic acid is produced as a byproduct.

This acid causes the pH of the cecum and colon to drop, resulting in an acidic environment. As a result of this change, those microbes – which are crucial for good digestion – can begin to die.

This causes a drastic change in the hind gut population. As microbes die, there is a strong chance they will release endotoxins, which can also damage the lining of the hind gut.

Many problems occur as a result, from diarrhea to laminitis or colic.

Feed the Bugs

Recent research shows one of the best ways to prevent the dying of these crucial microbes is to add yeast culture to feed formulas. Microbes, which feed on this yeast culture, remain healthy instead of dying, which enables better digestion. The fiber-digesting bacteria remain strong and healthy, and the horse has a better opportunity to receive full utilization of feedstuffs ingested. Diarrhea, laminitis, colic and other health issues can be avoided.

Yeast in Feed

Nearly all Seminole Feed formulas contain added yeast from the exclusive Diamond V Process™, which takes place at the Diamond V corporate headquarters in Cedar Rapids, Iowa. Unlike many products with “yeast” in their names, Diamond V Yeast Culture is a true, fully fermented yeast culture developed specifically for maximum animal nutrition. The Diamond V Process™ carefully ferments selected yeast on the proper media to produce nutritional metabolites that serve as a rich food source for digestive bacteria. The result? Improved feed digestibility, which allows the animal the ability to reach a higher nutritional plane