

## Feeding strategies that can reduce the incidence of colic

On average, 10 out of every 100 horses will suffer from a bout of colic each year. A high percent of these cases can be resolved without surgical intervention. Understanding how the microflora in the digestive tract function and managing your feeding program properly can help reduce the incidence of colic in your horses.

### Your horse is host to millions of microorganisms

The digestive tract of your horse is home to millions of microorganisms that aid in the digestion of feedstuffs. There are more microbes in the gut of your horse than all the individual tissue cells that make up your horse's body! The microbial population is incredibly vast, but also very sensitive; therefore, they must be carefully maintained to protect against changes that can lead to digestive upset, colic and laminitis.



While microorganisms reside in nearly all parts of your horse's digestive tract, the vast majority of them set up shop in your horse's hindgut (cecum and large intestine). Because your horse does not secrete enzymes or digestive juices to break down the feed that enters the hindgut, the task of digestion is left to the resident microbes. They do

this through a process called fermentation. The microbes use some of the fermented nutrients for themselves, while others are absorbed by the horse. Each individual microbe has its own specialty when it comes to fermentation. Some break down proteins, others starches and simple carbohydrates, while still others break down the more complex carbohydrates or fibers. The types and numbers of microbes living in the hindgut are based on the variety of feedstuffs found in your horse's diet. Because of this, the balance of the microbial population can be affected by what, when and how you feed your horse.

### Abrupt feed changes are a microbial home wrecker

Abrupt changes in any part of your horse's feeding program can negatively affect the microbial population. When you suddenly change what you feed, when you feed or how much you feed, it alters the quantity and type of nutrients available to the microbes. When confronted with an abrupt change, some microbes die off because they no longer have access to the nutrients they need to survive. Meanwhile, other microbes readily adapt to the change, allowing their population to increase. In some cases, the surviving microbes produce large quantities of fermentation byproducts that alter the pH (acidity level) in the hindgut. This makes the environment even more unsuitable for beneficial microbes, leading to increased imbalances. It is this disruption in the balance of the microbial population and the increased acidity in the hindgut that can lead to digestive upset and colic.

All of the components in your horse's diet—hay, concentrates, pasture or supplements—can cause imbalances to occur if changes are made too quickly. Research at Texas A&M showed that when hay was changed abruptly, the horses showed an increase in colic for about two weeks following the change. Even the same type of hay (grass, legume, mixed hays) can vary in nutrient makeup from load to load. The good news is you can protect your horse against microbial imbalances by avoiding abrupt diet changes and following a few simple good management practices.

## Three abrupt changes to avoid

1. Feeding a meal (concentrate or forage) earlier or later than normal, because the greater the time discrepancy the greater the risk of microbial die-off.
2. Making an abrupt change in the type or amount of hay, concentrate or supplement fed.
3. Suddenly changing the type of pasture grass, or the time allotted for grazing.

## Eight easy feeding tips to prevent microbial imbalances and reduce digestive upset

1. Provide an unlimited source of clean water at all times.
2. Feed a consistent diet and make all changes in concentrates, hay and supplements slowly—over 7 to 10 days—to allow the microbial population enough time to adapt to new nutrients.
3. Feed a high-quality fiber (such as hay) and offer it free choice whenever possible.
4. Feed concentrates as small, frequent meals 2, 3 even 4 times per day. Do not feed more than 4 pounds of concentrate per meal.
5. Maintain a consistent daily feeding schedule.
6. Keep all feeds and supplements in a horse-proof container or locked feed room to avoid accidental overeating.
7. Never feed tainted or moldy concentrates, hay or supplements.
8. Supplement your horse with high-quality probiotics during times of stress or after antibiotic use. Probiotics support healthy gastrointestinal tissues and maintain a population of beneficial microbes.



To support normal digestive function when change is inevitable, or to restore digestive function when an imbalance is present, turn to ProbioticWise™.

ProbioticWise is a super concentrated source of both prebiotics and probiotics that contribute to the maintenance of a normally functioning digestive tract.

### ProbioticWise:

- Maintains the healthy population of beneficial bacteria throughout the GI tract
- Provides *Saccharomyces boulardii* and fermentation metabolites, including MOS and beta-glucans
- Supports the restoration of normal GI tract function
- Sustains complete digestion of starch and sugar in the foregut, lowering the risk of hindgut upset and pH imbalances (acidosis) that can lead to colic and laminitis
- Supports reduced inflammation levels in GI tract tissues
- Supplies nutrients to the gastrointestinal tissues that support the healing of stomach and colonic ulceration
- Supplies antioxidants that contribute to the maintenance of healthy intestinal cell membrane function

### Veterinarians frequently recommend ProbioticWise to support a healthy GI tract in horses that are:

- Active in a lifestyle where schedule and feed changes are necessary
- At risk for digestive upset due to metabolic disease or old age
- Challenged by a demanding training/competition schedule
- Convalescing after surgery or recovering from illness or injury
- Currently or recently treated with NSAIDs and/or antibiotics
- Predisposed to grain overload and hindgut acidosis due to a high-grain diet
- Susceptible to gastric or colonic ulcers due to lifestyle or past history

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