

Nutritional Mismanagement Likely Cause of Maladies

We believe the cause of most horse maladies is based on nutritional mismanagement and refusal to accept the fact that nutrition is physiology. This problem goes way beyond simply how much protein or energy is fed each day.

Preventive Medicine and Nutritional Management

As a biotechnology company, we have had a long interest in the concept of preventive medicine. We view nutritional management as one of the cornerstones for implementing such a program.

A Hunch Becomes a Reality

Intervention that helps approximate normal intestinal function should have two positive effects:

1. It should maximize the efficient utilization of the diet fed.
2. It should help prevent the diet from becoming a source of potentially serious, life-threatening, physiologic problems.

At first, this concept was only our working hypothesis — basically a hunch. But, several years ago, we had veterinary clinics participate in 17 field clinical studies with our product called ReStore™. And our hunch proved right.

ReStore™ was developed to enhance the natural digestive processes of the horse. Now, well beyond those initial studies, ReStore™ has positively demonstrated the importance of intestinal management in growth and body condition maintenance. Most interesting to us, ReStore™ appears to positively impact those problems associated with management-imposed nutritional stress, such as colic and chronic diarrhea.

Intestinal Management is Critical to Your Horse

Some say the design and creation of the camel was a celestial committee decision. If so, the horse was planned and developed by the same committee, with leftover parts of the camel.

This design left the horse in a precarious ecological position. Compared to other plant-eating animals, such as the cow, sheep (or even the camel), horses appear to have been put together backward.

The digestive tract of most successful plant-eating animals includes a modification of the stomach. This modification allows for some pre-digestion of plant material by special bacteria that reside here.

Without these bacteria, the animal would starve. No mammal possesses the enzymes necessary to digest the structural part of plants or their seeds. Horses, most likely because their primary defense is to run from danger, were not provided with a modified stomach, which would add

considerable weight and bulk — weight and bulk that must be carried when attempting a fast getaway.

Instead, horses put the specialized digestive organ, vital to living on plants, at the end of the line where essential populations of bacteria live in the large intestines and two blind sacs next to it called ceaca. The rest of the digestive tract is not much different from your own.

How Horses Cope with the Digestive Tract's Arrangement

The backward arrangement of the digestive tract creates problems. To deal with it, horses are forced to spend all of their time eating, and eating relatively small meals. Small meals allow more time for chewing, which increases feed particle breakdown. This gives the natural stomach acids and enzymes produced in the small intestines and pancreas time to attack and absorb some of the nutrients present. Small meals also accommodate the restricted size and efficiency of the all-essential large bowel bacterial attack on the structural part of the plant that makes up the majority of the carbohydrate source available to the horse.

The take-home message: Horses developed over millions of years as animals that do best eating small meals and eating often. What was true a million years ago is still true today.

However, today, relatively few horses have the ability to free range. They live confined to stalls, their behavior dictated by the schedules of their caregivers. There are a number of ramifications to this artificial lifestyle. The most serious results from the inability to eat light and continuously.

Typical Husbandry Challenges Good Nutritional Management

Today, the typical housing environment requires that food be brought to the horse, not sought by the horse. There are only so many hours in a day, so the horse must be fed once or twice a day. Based on its evolutionary development, this is exactly the opposite of the way a horse should be nutritionally managed. Another important consideration: today's horses are larger than horses have ever been. So to keep them "looking good", there's an increased emphasis on feeding concentrated forms of energy and protein, usually delivered in the form of small grains, often further processed.

The net result is that large quantities of feed are presented to a digestive organ designed to handle small quantities. What's worse, these quantities are presented in large bursts, rather than slowly and evenly over prolonged periods. This situation pretty much described how possibly 99% of today's horses are fed. At worst, it can be responsible for everything from behavior problems to loss of use due to structural abnormalities — or worse, the death of your horse.

The horse, despite its size and apparent zest for life, is perhaps the most physically and psychologically delicate of all domestic animals. Our job as caregivers is to minimize the stress they are forced to live with, stress over which we have no control. The closer we can approximate their natural needs, the less we put them at risk. Preventive medicine and management programs based on this concept are the best way to assure your horse lives a long, healthy, and productive life.

Call Biovance at 877-246-7500 to place your order, or you may order via the website: www.restoreforhorses.com.