



Correct diet, plentiful exercise bring out best in horses this season

By Amy McLean

Spring in Wyoming can be a bit slow in arriving, but it is glorious when it does! One of the best parts of spring, given enough moisture, is seeing dormant landscapes green up.

As with humans, horses find this an exciting time. Horses are eager to get out and graze; however, for many of us without hundreds or thousands of acres to call our own, allowing uncontrolled grazing can be more hurtful than helpful in the long-run for equines.

Horses need healthy pastures to be happy, and too early or too intense grazing can negatively affect pastures. See the *Barnyards & Backyards* Spring 2005 article "Race for the Green" at barnyardsandbackyards.com. Even when land is plentiful and there is good precipitation, forage can be under snow for months. Feeding a grass-based diet to an animal that grazes 16 to 18 hours a day becomes a difficult task.

Healthy Horses

When adequate forage is not available, owners should consider supplying an additional source of forage, such as hay, hay cubes, or pellets. How do we create a spring diet for a horse that will keep it happy and healthy?

The first considerations when developing a horse feeding regime are:

- Their levels of work/activity
- Their ages

- Their reproductive status (lactating mare or first trimester)
- Weather conditions

Diets should be based on forage. Horses are hindgut fermenters – the cecum (hindgut) is the primary site of digestion, which greatly depends on microbial digestion. Microbes live in the hindgut and breakdown feed-stuffs. The microbial population must be healthy for a horse to get the most from its feed. A horse needs long-stem fiber for physiological reasons (to prevent stereotypies [repetitive actions] such as cribbing) and to maintain a healthy hindgut. Cribbing is a compulsive behavior such as a horse biting an object with its front teeth, arching its neck while pulling against the object, and sucking in air.

Consider High-Fat Diet

If the horse needs additional grain or concentrates to maintain body weight, consider a feed high in fat. A high-fat feed typically has more than 10 percent fat listed on the feed tag, and some feeds/supplements may be as high as 25 percent.

The high-fat diet will supply 2.5 times more energy to a horse than, for example, an energy source such as corn. Select a high-fat feed with a vegetable source of fat versus animal fat. Most manufacturers use stabilized rice bran along with flaxseed to increase fat content. Make sure the fat source has been stabilized so it does not go rancid. Vitamin E is typically used in this process. Horses

consuming high-fat diets are likely to have shiny hair coats.

An area of caution when feeding high-fat diets – there is a chance the horse may consume the diet quite well at first but, if not burning enough calories, consumption may drop. Read the feeding instructions carefully when providing a high-fat diet. Weigh the horse so you know how much to feed it. Many times, horses are fed based on volume versus weight. Typically, a horse should consume 2 percent of its body weight with 1.5 percent in forages and 0.5 percent in concentrates.

The amount of required concentrates may increase according to the horse's level of exercise, reproduction status, etc. In some cases, as much as 3 percent of the horse's body weight may be required in forages and concentrates, especially if the horse is in a high-energy demand situation or is a hard keeper (meaning a horse that's hard to maintain its body condition or keep weight on).

High-fat diets are great for older horses or any horse having a hard time keeping on weight. Another advantage is the high-fat diets typically



A balanced diet of forage and concentrates, if necessary, can fine-tune your equine horse power for spring.

do not affect a horse's behavior. Some owners claim their horses become "excited" or "hot" when consuming a lot of grain. This is often associated with diets high in soluble carbohydrates (sugars and starches). These observations are typically not seen when horses are consuming high-fat diets but, remember, there's always an exception to the rule.

Horses More Often Too Fat

We are more often dealing with horses that are too fat than too thin. Certain breeds of horses and most ponies and donkeys can easily gain weight on minimal forage alone. Such equine are predisposed to metabolic issues due to being overfed and underworked. Obese equine often develop laminitis. Laminitis, inflammation of the laminae tissue in the hoof, is often caused by restricted blood flow to the laminae. The restricted blood flow may be from a dietary issue, such as feeding or overloading your equine with nonstructural carbohydrates.

Equine are intended to eat grass or forages, which are high in carbohydrates both structural (called structural because they provide "structure" in a plant like a skeleton does in a human, these include lignin, hemicellulose, cellulose) and nonstructural

carbohydrates (typically thought of as sugars such as sucrose, glucose, fructose). These nonstructural carbohydrates are sometimes referred to as water-soluble carbohydrates because they dissolve in water. Equine that have Equine Metabolic Syndrome (EMS), cushions, or laminitis are typically prescribed low non-structural carbohydrate diets.

Here are a few simple tips to follow if trying to reduce nonstructural carbohydrates in an equine's diet to help avoid obesity or decrease the chance of laminitis:

- Feed a low carbohydrate diet
- Only graze in the morning
- Feed small meals several times a day (example: two or three feedings/day)
- Feed concentrates low in energy, high in fiber
- If the equine is lamanitic or obese, soak the hay in warm water for at least 30 minutes, which can reduce water-soluble carbohydrates up to 40 percent on the forage (this method literally washes away water-soluble carbohydrates found in the forage).
- Exercise the equine on a daily basis

Spring is a wonderful time for both our equine friends and us. A proper diet and the right amount of exercise will help them feel their best.

FOR MORE INFORMATION

- To learn more about feeding equine with metabolic issues, check out this archived webcast at www.myhorseuniversity.com/resources/webcasts/oct_10_EMS
- To learn more about Equine Metabolic Syndrome and feeding ponies, see this archived webcast at www.myhorseuniversity.com/resources/webcasts/oct_2011
- If interested in learning more about feeding mules and donkeys, view this archived webcast at www.myhorseuniversity.com/resources/webcasts/dec_2011

Amy McLean is the extension equine specialist and lecturer in the Department of Animal Science at the University of Wyoming. She never met an equine she didn't like. Amy can be reached at (307) 766-4373 or at amclean1@uwyo.edu.