

SELECTING HAY FOR THE WINTER

by Dr. Robert L. Leonard, DVM, at www.horsedoc.org

Here in the Ozarks we have enjoyed one of the wettest summers we have seen in a long time! We have only to visit with colleagues from anywhere else in the country to realize our good fortune. As a result, the supply of locally produced hay is in good supply. If you are finding a ready supply in your area, this could be your opportunity to purchase a better quality hay for the same price you have been paying. As we have often written, *the ideal way to maintain our horses is to feed a good quality hay*, and only feed grain if additional conditioning is needed. For maintenance, a good quality hay is usually all that is necessary.

When referring to a “good quality” hay, we are *not talking about a pure alfalfa*. While a second or later cutting of alfalfa that has been properly harvested is considered the ultimate hay, *this quality is not necessary* for maintenance of *most of our horses*. The other end of the quality spectrum is a first cutting of an overmature fescue or native grass. The challenges a horse has in digesting the top and bottom quality hays will be addressed later in this article.

For the million or so years before horses had the benefit of our care, their ration consisted of mixed grasses they grazed while continuously on the move. As a result they did not participate in the frustrating habit of overgrazing one patch of grass while allowing a patch right next to it to grow well into maturity, as we see them do often today. They balanced their nutritional needs by eating a variety of grasses, some of which were high in protein, some new growth grasses and some mature with higher fiber content. They also avoided internal parasites because by the time the worm eggs hatched and the larva wiggled to their position up the grass stem the herd had moved on over the next hill, leaving them to die at the ripe old age of five days (less in dry, hot, or cold weather).

Due to a constant supply of grass, the digestive tract of the horse became very efficient at digesting forages. The strong teeth grind the grass into small particles while mixing it with saliva. Saliva contains a large amount of sodium bicarbonate (certainly a generic of Arm and Hammer Baking Soda). As it is swallowed, the bicarb balances out the acid used by the stomach for digestion and keeps the pH near neutral. The last several feet of large intestine is the same as the rumen of the cow and provides for the breakdown of fibrous material from the forages.

When the horse is consuming concentrated feeds which do not require chewing, the stomach *pH gets out of control* and *ulcers start forming*. This is only a problem when we feed our horses grain and third cutting alfalfa! Before you start calling your hay supplier for a refund on that very nice alfalfa hay (or our clinic to complain), please read further to see our recommendations for feeding.

Unlike the cow who only grazes eight hours a day, the horse will eat until it is satisfied. If it is eating low quality grass or hay, such as straw or a first cutting fescue baled well past its maturity, *huge quantities will be consumed* in an attempt to quiet the hunger pangs. Whether this is a young foal or an older horse, *the abdomen will stretch* to reflect this large quantity of roughage. Since the coarseness of the hay determines how fast it moves through the gut, the lower quality-high fiber forages move through slowly. The bowel must expand to accommodate the bulk of the digesting forages as well as the incoming hay. This puts pressure on the outer abdominal wall, *leading to the pot belly affect*. After changing to a

better quality hay or grass it will take months for the abdomen to recover and the horse returns to her desired figure.

If the very best quality of hay is fed, there actually *may not be enough roughage* to satisfy the needs of the horse. The later cuttings of alfalfa have a fine leaf with little stem, which makes it low in fiber. The horses love this feed and it does contain twice the fat of the grass hays. Alfalfa also has a high protein content, which can be irritating to the lining of the bowel. The combination of low fiber and high protein causes the feed to move through the intestine much faster than normal, leading to a very soft stool. *To continue feeding this ration will predispose the horse to ulcers and possibly diarrhea.*

Next week we will discuss the specific hays, and how to determine the nutritional and dollar value of each.

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