Alternative Feeds for Horses during Hay Shortages

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Written: November, 2007

The talk among many horse owners during the fall of 2007, while approaching the winter, has been the lack of forage in certain parts of the Midwest due to either wet spring weather and/or subsequent drought. Although some states like Oklahoma and Wisconsin seem to have plentiful hay supplies, it is difficult and expensive for horse owners in many parts of the Midwest, including Southern Illinois, to acquire shipments of good quality forage. Horse owners unfortunate enough to reside in areas of feed shortage should keep an open mind about “alternative feeds” that may be used to stretch winter feed supplies.

Although horses require some source of fiber in the diet in order for the hind gut to function normally, research has found that horses tolerate various forms of processed forages very well. A recent study conducted at the University of Illinois (Andrew, JE, K.H. Kline and J.L. Smith. 2006. Effects of Feed Form on Growth and Blood Glucose in Weanling Horses. J. Equine Vet. Sci. 26: 349-355.) found that young horses consuming a completely pelleted diet of processed hay and grain grew at a slightly faster rate than when the same horses consumed the same feed ingredients as separate hay and grain feedings. These findings illustrate that horses do not require long stemmed forage at all times, as long as the diet contains adequate fiber, even when highly processed into pellets. Therefore, horse owners should consider alternate forage sources such as hay cubes, dehydrated alfalfa pellets and completely pelleted feeds for their horses during times of hay shortages.

Many popular “junior” and “senior” feeds for growing and geriatric horses, respectively, are in a form called “completely pelleted”. This means that this type feed may be offered to the horse as the complete daily ration without additional hay, hay cubes or grain, due to the fact that it is already a comprehensive package of forage, grain products and vitamin/mineral supplements compressed into a pellet. This feeding method is used less commonly than the typical management method whereby forage and grain are fed separately to horses, but may have potential to be used more often. These types of feeds have great potential to be used instead of long-stemmed forages fed along with separate grain meals when forages are very scarce.

Another recent UI study entitled “Effects of feeding distillers dried grains with solubles (DDGS) on growth and feed efficiency of weanling horses”, presented at the June, 2007 Equine Science Society Symposium in Baltimore Maryland, found that up to 15% of the total equine diet, when based upon alfalfa as the forage source, may be replaced by distiller’s dried grains with solubles without significantly suppressing growth rate in young horses. Once again, the forage was provided as processed alfalfa meal in completely pelleted diets, and the horses all grew at a normal rate and did not experience health problems. However, it must be emphasized that such corn by-
products should be incorporated into a complete pellet with high quality forage such as alfalfa. If lesser quality forage is used that may have lower protein quality (i.e. low lysine), then growth suppression will likely be seen. This is due to the fact that DDGS, while high in overall protein concentration, has lower quality protein as compared to more conventional protein sources such as soybean meal. Sources of DDGS may be available in some areas at lower cost that corn, which has become scarce due to the high demand for ethanol fermentation. This recent study has found that DDGS may be used in horse diets to a limited degree to stretch both hay and corn supplies, as long as the forage used is a good quality legume.

Although not backed by recent research, there are reports of horse owners successfully utilizing alternative fiber sources such as corn stalks and soybean stubble to extend scarce hay supplies. However, most horse owners that have been successful at utilizing such forage sources have found that consumption of such relatively unpalatable fiber sources is quite low in horses unless such feedstuffs are further processed. For instance, shredding the corn stalks along with higher quality forage such as alfalfa and mixing with concentrates such as grains and grain by-products may be required in order to achieve adequate consumption of such coarse alternative forage. Furthermore, corn stalks are generally available as bales, and may or may not have the quality necessary to be used as horse feed. If stalks are to be used successfully in horse diets, they should have been baled and stored while they were clean and dry, and be free from mold, dust and bacterial growth.

Another forage product that can be successfully used in horse diets is called “Chaffhaye”. This product is essentially ensiled alfalfa (or grass) in a bag with high moisture content, sprayed with a light coating of low sugar content molasses and some probiotics to start the fermentation process. Although the horse owner is paying for some extra water in this product, the fact that the forage has been packaged before excessive dehydration yields a very nutritious product with no leaf loss.

Although forages and certain grains may be scarce in many parts of the Midwest this winter, horse owners that are open-minded about feeding their horses differently than in past years can survive the potential feed shortages.