

The Art and Science of Feeding Horses

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Providing optimal nutrition for horses is an art and a science. Many feeding practices originate from the experiences of earlier horsemen and women. Others are rooted in myths and wives tales, or trends in other livestock species or human nutrition. As science provides more factual information on horse nutrition and feeding, some common practices are proven accurate while others are shown to provide no benefit to the horse and possibly even be harmful.

One long-standing practice is feeding a hot bran mash once a week or adding bran to horse diets. When horses worked on farms or pulled carts in cities, it was common practice to feed a hot bran mash on Saturday evening, prior to their day off on Sunday. Horse owners believed these weekly bran mashes had a laxative effect and would help prevent colic. Research found no laxative effect to feeding bran or bran mashes to horses. A horse's diet already contains plenty of fiber, 35% on average, compared to the typical human diet containing roughly 2% fiber. Bran increases the fiber content of a person's diet but not a horse's. Bran contains less fiber than hay or pasture and about the same amount as whole oats. This practice may have continued for so long due to a mistake in interpreting what was actually happening in the horse. Most horse owners would never consider changing the grain portion of the ration from one day to another, but adding a large bran mash once a week represents a significant change in the diet. This diet change can alter the microbe population of the hindgut which may cause a transient low-grade diarrhea, and could mistakenly be interpreted as a laxative effect of the bran.

A relatively recent trend is the popularity of feeding high fat diets. Thirty years ago, feeds for horses contained an average of 2 – 2.5% fat, the level naturally occurring in the ingredients. Higher fat diets were considered unnatural for horses and potentially harmful. Early research focused on fat primarily as a calorie source for horses requiring large quantities of grain to maintain body condition, such as hard working horses and lactating broodmares. Additional benefits were also reported, including improved stamina and level of performance in fit horses and health benefits of essential fatty acids found in some fat sources. The current trend is "more is better" when it comes to fat level in horse feeds, but most horses don't really benefit from more than a moderate fat level in the grain portion of the diet. Highly stressed, hard working horses may benefit from higher fat grain mixes or additional fat supplementation to meet very high calorie requirements in smaller amounts of feed. Horses with low to moderate calorie requirements may not benefit any more from high-fat feed than they would from a feed containing 4 – 6% fat. Further, adding fat to a nutritionally marginal diet doesn't create a high performance diet. Adding fat requires feeds to be formulated to account for the higher calorie content and higher requirements for some vitamins. If fat is added to feeds without improving the protein quality and vitamin/mineral balance, deficiencies of some nutrients may occur due to the lower feeding rates. So, while there are benefits to added fat in the diets of many horses, it is not necessarily a matter of "more is better" for all horses under all circumstances.

Before all the interest in fat-added diets for horses, protein content probably received the most attention. Horse owners often chose higher protein feeds for harder working horses. Research showed that level of performance does increase the protein requirement somewhat, but not relative to calorie content. That means as a horse works harder, he requires more feed to meet higher calorie needs. This higher intake of feed provides a higher intake of total protein as well, which readily meets the additional protein needs of the working horse. This may not be the case when fat is added to a ration because fat increases the calorie content and generally reduces the amount of feed required to sustain a given level of work. It is not uncommon to find horses eating a high fat feed that doesn't provide adequate protein or amino acid balance. A horse eating this type of diet may maintain good body condition but often exhibits loss of muscle over the top line, slowed hoof growth and dull hair coats. These problems are all related to inadequate protein intake and more specifically, inadequate essential amino acid intake.

Feeding and caring for horses will always require careful observation and a certain "feel" for horses and how well they are doing, but it is also important to base feeding decisions on proven research. Always check with your veterinarian or an equine nutritionist before implementing a new feeding practice to be sure that it won't be harmful and will truly be helpful to your horse.