



Feeding the Malnourished Horse

The Educated Horseman: Management Series



Weight loss or reduction in appropriate body condition can be linked to a number of factors, most commonly age, disease and lack of proper nutrition. Regardless of the reason for the reduction in body condition, care must be taken to create a plan to return the horse to a more “ideal” nutritional level. This plan should include veterinary examination to ensure that proper organ function is in place and that the horse is not suffering from a condition or illness that would cause the weight or appetite loss.

Henneke Body Condition Scoring system

To access a horse’s current condition, you must first understand the Henneke Body Condition Scoring system. This system relates the amount of excess energy reserves or fat cover on a horse’s body. It applies a scoring system of 1-9. A “moderate,” or a horse with ideal fat stores, will have a score of 5. A horse with a score of 5 will have a level back, ribs that cannot be visually distinguished but can be felt easily, fat around the tailhead, with withers that appear rounded with a shoulder and neck that blend smoothly into the body.

The Louisiana Department of Agriculture and Forestry minimum horse care standards require that a horse has a minimum body condition score of a 3 to prevent cruelty or neglect charges. A horse with a body condition score of 3 is considered “thin” and has built up fat only halfway on the spine, with slight fat covering over the ribs, (but the spine and ribs are easily noticeable), has a prominent tailhead, and the bones of the pelvis, hip and withers are accentuated. A horse can also be considered “starved” if it has lost more than 15 percent of its body weight in 60 days or less.

A normal horse with adequate nutritional support will utilize fat and carbohydrate stores as an energy source to fuel normal physiologic activities, which are then replenished by nutrients in their diet. When a horse does not have access to or cannot consume enough nutrients, the body begins to break down proteins, from tissues like muscle and vital organs to provide the energy it needs to maintain the basic daily functions. If this process

continues for an extended period, irreversible damage can be done to major organ systems, which decreases the overall chance that the animal will return to a normal body condition or survive.

Once an animal reaches a malnourished state, it can be a long, difficult process for it to return to a normal nutritional plane. It is important to work with a veterinarian to ensure proper feeding methods and products are being used. It is very easy for a malnourished animal to experience **refeeding syndrome**, a condition that occurs when horses are introduced to feed too quickly, which will result in a surge of insulin secretion and a rapid uptake of glucose. The rapid increase of glucose will cause increased mineral uptake into the cells and can cause heart, liver, kidney, respiratory failure or death. Refeeding syndrome can occur in three to 10 days following an increase in calories; therefore, it is important to reintroduce feed slowly to a malnourished horse to prevent additional health issues.

High Forage Feeding Regime

Research has shown that high forage diets are the most successful at returning horses to an appropriate body condition score following malnutrition and preventing the occurrence of refeeding syndrome. Alfalfa hay has been shown to be the best option to raise the body condition score in a malnourished horse due to its high protein and low carbohydrate composition. This reduces the potential spike in insulin and the chance of refeeding syndrome from occurring.

The suggested alfalfa feeding regime is:

Days 1-3: 1 pound of alfalfa hay every four hours.

Days 4-14: 4 pounds of alfalfa hay every eight hours.

After two weeks, horses can be fed as much hay as they will eat.

Even though research has shown that alfalfa hay is the best option, its expense and availability may make it an unviable option. In that case, grass hay can be substituted; however, grain or concentrated pellets

should be avoided completely until the horse has returned to a normal body condition score.

The suggested grass hay feeding regime is:

Days 1-3: 2 pounds of grass hay every four hours.

Days 4-14: Slowly increase grass hay until you can feed 8 pounds of grass hay three times a day.

After two weeks, horses can be fed as much grass hay as they will eat.

Return to Normal Is a Long, Slow Process

Although there are appropriate protocols to help a malnourished horse return to a normal body condition, it is a long, slow process. Typically, three to five months (up to a year) may be needed to see the horse return to a healthy status. It is extremely important that a malnourished horse be examined by a veterinarian on a regular basis so the appropriate recommendations for treatment of illness, disease, parasites, vaccinations and dental condition can be addressed when the animal is in good enough condition to reduce overall stress.

Keep in mind that despite an owner's willingness to continue extended care of a malnourished horse,

in some instances humane euthanasia may still need to be considered, due to lack of improvement or other complications due to the reduced health status. Maintaining adequate nutritional status and care for your horse is the best preventative for the dangers associated with a low body condition. If you suspect your horse is malnourished please contact your local veterinarian immediately.

References

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