Feeding the Emaciated and Starved Horse

Starvation in horses is particularly a problem during the winter and early spring months, or at times of drought, when there is a lack of forage accessible to horses. Horses are considered “starved” when 1) the body condition score (BCS) is less than three, 2) the horses has had nothing to eat for at least 5 days, or 3) the horse has lost more than 15% of its body weight in the previous 60 days. Reintroducing feed to the diet of starved horses too quickly can result in death due to a syndrome called refeeding syndrome.

Refeeding Syndrome

Refeeding syndrome occurs when large amounts of traditional high starch grains or concentrates are fed to starved horses too quickly resulting in a surge of insulin secretion from the pancreas which leads to the rapid uptake of high concentrations of glucose by the body’s cells. The glucose forces large amounts of minerals, including potassium, phosphorus and magnesium out of the cells and into the bloodstream. The result may be heart, kidney and liver failure, and death may occur within 3 to 10 days. To avoid refeeding syndrome, starved horses must be fed gradually allowing their body chemistry to “catch up”.

Alfalfa Hay is the Best Feed for Starved Horses

Grains and concentrates should not be fed to horses for at least the first TWO WEEKS when feeding the starved horse. Emaciated horses should be fed gradually with roughage-based diets and free choice access to fresh clean water and salt. Alfalfa hay is considered the best feed for starved horses because of its high nutrient content and palatability. Alfalfa is typically low in sugar and starch so it produces a lower insulin response than grain diets. However, hay should be analyzed by a forage testing laboratory to determine nutrient content to in order to develop an ideal nutritional program. The recommended feeding schedule for refeeding starved horses with an average ideal body weight of 1000 lb with alfalfa hay is as follows:

- Feed 1 lb (around 1/4 flake) of alfalfa hay every 4 hours for the first 3 days.
- Increase the hay to 4 lb (around 1 flake) and decrease the frequency of feeding to every 8 hours from day 4 to 7.
- Continue feeding at this rate until day 14.
Slowly increase the amount and decrease the frequency of feeding until the horse is receiving all the hay it wants in a day.

Sometimes alfalfa hay is not available in sufficient quantities, or is simply too expensive. Generally, you will have to feed about twice the amount of grass hay compared to alfalfa hay in the early stages of feeding the starved horse.

**Feeding Concentrates after Two Weeks**

If forage alone is not achieving the desired weight gain, concentrates may need to be added after 14 days. Commercial horse feeds that are high in fat and fiber are generally the preferred type of concentrate for starved horses. Senior feeds are a good choice for starved horses because they are manufactured to be highly digestible and easy to chew, and are typically higher in fiber. If grain or concentrates must be fed, a strict feeding schedule should be as follows (for a horse with the ideal bodyweight of 1,000 lb):

- **Never feed concentrates within the first 2 weeks of refeeding a starved horse**
- Feed 1/2 pound of concentrate twice a day beginning after day 14
- Increase grain mix by 1/2 pound a day every 3 days until the horse is being fed 1/2 to 1 pound of grain per 100 pounds body weight of feed per day in 2 feedings

**Expect a Long and Slow Recovery**

Starved horses are extremely sensitive to abrupt changes and recovery for these animals is a long and gradual process. Starved horses can safely gain .5 to 1 pound of body weight per day and it may take up to a year or more for a horse to safely move from a BCS of 1 to a BCS of 5. Returning neglected animals to health can be very rewarding, but it is expensive and requires guidance from equine professionals including an equine veterinarian, an equine nutritionist, and your county extension agent.

**References**


The “Tennessee e-QUINE Report” is a monthly e-publication developed by Dr. Bridgett McIntosh, Department of Animal Science, Extension Horse Specialist, featuring timely issues for equine clientele throughout the State. To subscribe to the e-QUINE Report, contact your local county Extension office.

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