

## **Agriculture and Natural Resources**

FSA3136

## Tips for Feeding Horses During a Drought

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Drought can cause challenges to horse owners even when they foresee the conditions and have a plan in place. In normal conditions, the rule of thumb to follow in the southern United States for pasturing a horse is 1 adult horse per 2 acres or 1 acre for a yearling or two-year-old. Further, one of the most important factors in feeding a horse is to keep any changes in feed gradual – this includes both forages and concentrates (grains, pellets, oats, etc). Horses do not accept a change in forage very well, and the shortage of hay and increase in expense of concentrates have caused many horse owners to evaluate current feeding programs and seek alternatives.

Here are some facts and helpful suggestions for feeding horses during a drought or during dry-season conditions:

- Roughage is the most important facet of a horse's diet. The owner should strive for approximately 50% of the horse's daily intake to be forage based (should be 1%-2% of total body weight).
- Roughage provides essential sources of digestible energy, protein, and some vitamins and minerals.
- Implement a rotational grazing program. During months when rain is more prevalent, use a fencing system that will not allow sections of the pasture to be grazed.

 Plant winter annuals such as rye, ryegrass or wheat. While the initial cost may be high, this option could possibly be less expensive than hay purchased over the course of a winter and early spring.

Ryegrass can be planted as early as late August. The typical planting times for planting on a tilled seedbed begin in early September through early November. The typical planting period for sod-seeding either by no-till or broadcast methods begins in late September through early November. Early-planted ryegrass (September) can provide grazing in late fall. Late-planted ryegrass (November) will not provide significant grazing until late winter (March), except during warm winters as in 2011-12.

- Only feed hay when the previous feeding has been "cleaned up" completely.
- Weigh each hay feeding to prevent over-distribution.
- Foaling mares should be kept away from fescue because of concerns over foal death at time of birth and the complete absence of milk production in some mares provided access to fescue.
- Horse owners who have access to round bales (or the equipement to handle them) can save costs over the course of a dry season.

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They should:

- Keep the bale covered and out of reach to horses.
- Limit each feeding by:
  - (1) Limiting access to the bale to 2 hours each day.
  - (2) Using a pitchfork to pull each daily feeding off the bale.

The crude fiber lost in **not** feeding hay can be found in other sources. Some common supplemental feedstuffs that can replace a **portion** of the roughage in the diet are:

(crude fiber = 11%-15%, usually approximately 1 cup per feeding is sufficient – starting with a small handful on the first feeding)

- Rice bran (high in fat and phosphorus, may need to supplement calcium if not balanced by manufacturer).
- Wheat bran (high in phosphorus, may need to supplement calcium if not balanced by manufacturer).
- Oats (considered safe to feed, contain more fiber than other grains). Can be mixed with other concentrates in a higher volume than others listed above. Crimped oats are more easily digested.

Some common alternative roughages that can be a replacement or a **partial** replacement for hay are:

(high fiber feeds, >15% crude fiber)

- Other hay sources:
  - Alfalfa
  - Oat hay
  - Straw (Oat straw is more palatable than wheat or barley straw. However, straw in general should serve as a last resort as an alternative feed.)
- Alfalfa hay cubes (may require soaking to make more palatable)

- Alfalfa pellets
- Beet pulp (may also require soaking to make more palatable)

During a drought it is tempting to increase what is most available, and many times that is concentrates (grains, oats, pellets, etc.). These types of increases should be limited or avoided completely. However, if they are increased, keep in mind:

- Feed smaller meals more frequently (for example, once in the morning, noon and late evening).
- Concentrates should consist of between 0.5%-1% of body weight (a 1,000-pound horse would receive between 5 and 10 pounds of concentrate per day). This amount should be divided into three equal feedings per day.
- When increasing concentrates, it becomes more and more important to check feed for insects.
- Feed concentrates by weight not volume. Weigh the feed and determine the amount to be fed by the weight of the horse.
- Concentrates should not exceed 50% of the horse's total diet.

Other items to consider during a drought:

- Hay is available to the south and east of Arkansas. Join with other horse owners as a group to split the costs of having the hay transported by someone else, or purchase hay as a group to reduce costs.
- Also, if your horse is chewing on trees, fence posts or eating weeds, this may be an indication you are not meeting your horse's nutritional needs.

SOURCES: Clemson University, Colorado State University, University of Arkansas and Texas A&M University. Drs. Paul Sciliano and Lori Warren (2010), Dr. John Jennings (2012) and Dr. Pete Gibbs (2006).