

Equine News Q & A

My veterinarian insists that I feed my mares grain through the last 60 days of pregnancy. The mares usually maintain proper body condition on spring pasture alone. Am I doing my mares a disservice by not feeding them grain in late pregnancy?

The mares may not be getting the balance of nutrients they need to support the growth of a fetus on a grass-only diet. Though grass may sufficiently supply an idle gelding with most of his nutritional requirements, the same cannot be said for pregnant mares. The developing fetus increases the nutrient needs of the mare. If the mare does not receive the nutrients in her diet to provide for fetal development, she will take them from her body reserves.

The mares are obviously consuming enough calories to hold their body condition, but they may be suffering subtle deficiencies of protein, vitamins, and minerals. If a commercial concentrate is fed at levels below the recommended feeding rate, the mares will not be consuming the micronutrients they require. For instance, suppose the minimum feeding rate of a particular feed is four pounds, which supplies 2 mg of selenium to meet the mares' daily requirement. If only one pound is fed, mares will only consume 0.5 mg of selenium, a level far below the requirement. If the mares are fed the recommended amount of grain, however, they will get too fat.

Feed manufacturers often produce low-intake feeds for horses. These concentrates are designed to supply the protein, vitamins, and minerals necessary to balance the forage without adding many additional calories. A balancer or supplement pellet, fed at one to two pounds per day, is one example. If the mares are on the verge of becoming overweight, another option would be a vitamin and mineral supplement such as Micro-Phase (Kentucky Performance Products, 800-772-1988), which has an even smaller feeding rate of two to three ounces.

In researching alternative protein sources for horses, I have found many references to safflower meal. What is this feedstuff and is it appropriate for horses?

Safflower is grown chiefly in the West, with United States production centers primarily in California, Montana, and North Dakota. Safflower seeds are processed for their oil, which is used in food and industrial products. Two varieties of safflower exist, one that is high in monosaturated fatty acids (oleic acid) and one abundant in polyunsaturated fatty acids (linoleic acid).

Safflower meal is the material left following oil extraction from safflower seeds. Crude protein varies from 20%-25% for meal containing hulls and up to 49% if hulls are removed. Dehulling is generally not economical for processors.

Safflower is a palatable feedstuff for horses. In a trial conducted at Montana State University, researchers compared the palatability of safflower oil and linseed oil, a common source of supplemental amino acids in horse feeds. In the study, mature horses preferred to eat alfalfa cubes treated with linseed oil, though they did not refuse the safflower-coated cubes.


Safflower meal can be used in horse feeds as a source of protein, but feed manufacturers more frequently use soybean meal and corn gluten.



Many of my traditionalist peers insist on feeding alfalfa to their young horses. I believe that growing horses can be maintained on properly harvested, early maturity grass hay as long as all essential nutrients, including calcium and phosphorus, are present in a concentrate or a vitamin and mineral supplement. Am I off base here or is tradition simply refusing to die?

Alfalfa is well rooted in feeding lore because it was thought to be the only hay that had sufficient nutrients to support rapid growth of young horses. To its credit, alfalfa is much higher in calories than low-quality grass hays and has calcium to support bone development.

Grass hay was formerly harvested for quantity, not quality, and therefore was usually baled when it was tall and overmature. Such hay is low in protein and digestible energy. Education of hay farmers has led to the availability of high-quality grass hays in recent years. It is now possible to find grass hays harvested before maturity.

A high-quality grass hay is better for a young growing horse than alfalfa. Alfalfa tends to be low in phosphorus and superabundant in calcium and protein, almost to the point of excess in some cases. This nutrient profile can contribute to developmental bone disorders. Most grain concentrates are not designed to complement the nutrient profile of alfalfa, which may result in a mineral imbalance. If horsemen can lay their hands on high-quality grass hay, they will be miles ahead of their peers. 



Reprint Courtesy of Kentucky Equine Research, Inc.

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