



A hundred years ago, feeding horses was simple. Farmers and trainers went to the feed store, bought a bag of oats or corn, and gave their horses a scoop or two every day. Nutrition management isn't as easy for today's horse owner, who is faced with a seemingly endless and bewildering array of sweet feeds, pelleted feeds, and extruded products, not to mention supplements to nourish or enhance every segment of the horse's mind and body. Even the old-fashioned oat diet has become much more complicated: feed mills still offer whole oats, but owners can also ask for crimped, cracked, crushed, rolled, ground, steamed, roasted, or even naked oats.

It's common for new horse owners to seek feed management advice from their more experienced horse-owning friends, a practice that may yield conflicting information. However, careful consultation with a feed dealer usually shows that there is at least one, and probably several, "right choices" for any equine.

Forage (grass or hay) should be the foundation of every horse's diet, but some type of concentrate must often be added to meet a particular horse's energy requirements for growth, exercise, or reproduction. Extruded, pelleted, or sweet feeds can all provide energy, and each feed form has other attributes that owners should consider as they look for the best products to suit their animals. Examining the pros and cons of each type of feed can clarify the decision.

“All my horses love sweet feed. Even the picky eaters clean up every bit.”

“Oh, yeah? Sweet feed is bad for horses—it’s nothing but sugar.”

Early in the last century, feed dealers combined oats, corn, and barley, threw in salt and other minerals, bound the mixture together with molasses, and called the resulting product “sweet feed.” Horses liked it because it tasted good; owners bought it because it looked and smelled appealing. Modern sweet feeds still meet with approval from both owners and horses, but they now come in a range of formulations to meet the requirements of almost any horse.

A chief advantage of sweet feed (also known as textured feed) is its excellent palatability. Most horses accept it readily, so it is a good choice for equines that tend to back off other feeds. Part of the taste appeal comes from molasses, a sticky by-product of sugarcane processing. But much as horses love it, molasses has come under fire in recent years as research has revealed the danger of feeding high-sugar products that create a steep rise in blood glucose. Especially in young growing horses, this reaction has been linked to an increased incidence of skeletal deformities. As the obvious “sweet” ingredient in sweet feed, molasses has been the focus for those who seek a scapegoat to explain feeding problems.



Although molasses does contain sugar, the molasses used in many modern sweet feed products has lower levels of sugar than that of yesteryear. And, as with any feed-related condition, proper management can minimize the problem. Horses of any age should not be given unlimited access to concentrated grain products, regardless of molasses content. Sweet feeds vary by region, season, manufacturer, and proposed use as to the amount of molasses they contain, and many sweet feeds designed for young horses are formulated with a lower carbohydrate level to minimize developmental problems.

Sweet feeds can be made with a variety of ingredients and proportions. For instance, manufacturers may add vegetable oil, beet pulp, and soy hulls to provide plenty of energy while decreasing the starch content. Sweet feed may also contain ingredients such as yeast to aid digestibility, vitamin E to boost antioxidant content, herbs and other flavorings for taste enhancement, and balancer pellets (protein, vitamins, and minerals) to raise nutrient levels. Other additives prevent mold and make the feed less likely to clump in cold weather. Protein levels have the smallest range (usually from 12 to 16%), while fat and fiber contents can vary much more widely between formulations. With this many choices, owners should be able to select a sweet feed to suit virtually any horse regardless of age, use, and breeding status.

“Pellets contain everything my gelding needs. They don’t mold in the summer, and they’re easy to handle in the winter.”

“Come on, you shouldn’t feed pellets—heat processing destroys all the vitamins!”

Like other feed forms, pelleted products have perceived advantages and drawbacks. In the “plus” column, many owners would list digestibility, uniformity, and ease of handling. Arguments against pellets (many of which are erroneous) include questionable ingredients, nutrient damage during manufacturing, and an increased danger of choking. The truth is that pellets are made of essentially the same ingredients as sweet feed: corn, oats, barley, vitamins, minerals, and molasses. The most obvious difference is in appearance, a result of how the components are put together. To make a pelleted feed, manufacturers combine the ingredients into a slurry and then subject the mixture to a brief period of steam heating, a step that slightly increases the availability of nutrients as they pass through the horse’s digestive tract. The mix is then forced through pellet dies, and the resulting product is cooled and bagged. Heat-processing does make starchy grains easier to digest, but some nutrients can be destroyed if they are exposed to long periods of high heat. To offset this loss, manufacturers often increase the level of heat-sensi-

tive vitamins to ensure sufficient fortification in the final product. Pellets can also be manufactured with a cold-process technique that eliminates loss of critical nutrients.

Pellet enthusiasts point to the fact that ingredients are blended, so picky horses can't sift through their feed, eating what suits their fancy and leaving less desirable scraps in the trough. Detractors come back with the argument that top-dressed supplements tend to stick to sweet feed and thus are consumed, while the same powders or granules often end up in the bottom of the pellet bucket. Adding just a little vegetable oil to a serving of pellets is an easy way to overcome this problem.

Pelleted feeds have been accused of causing choke in horses that gobble their feed. In reality, horses that eat too fast can choke on any type of feed. The danger of choke can be lessened if some water is added to a pelleted ration, softening the feed and providing some lubrication to aid swallowing. Owners of choke-prone horses can also fall back on the time-honored solution of placing several large, smooth rocks in the feed tub to slow consumption and limit the size of each mouthful.

Like sweet feed, pelleted products are available in a variety of formulations, and the levels of protein, fat, and fiber differ by manufacturer and suggested use. For example, formulations for young horses usually contain the highest protein levels, while a feed designed to fuel endurance horses might feature oil as a "cool" energy source. Pellets also contain molasses, although the amount is somewhat less than in sweet feed.

"Have you seen that new extruded feed? It looks like Cheerios!"

"Sure, it looks different, but extruded feed is easy for older horses to chew and digest."

One of the most recently introduced forms of horse feed is an extruded product that resembles some other types of pet food. Made from essentially the same ingredients as textured or pelleted products, extruded feeds consist of rounded chunks that are crisp, crunchy, and slightly shiny. The texture encourages horses to chew more thoroughly, so extruded products may be a safer choice for horses that gobble their feed. The manufacture of extruded feed involves heat and pressure, and this processing results in the most easily digested type of feed, an advantage for senior horses or those with dental problems. Extruded feeds are also the most dust-free, so they may be a good choice for horses with respiratory problems. An owner may have to look a little further to find a choice of extruded horse feeds, as this feed form is somewhat more expensive to produce and therefore has not yet gained the popularity of more traditional feeds.

"What's wrong with something natural like straight oats? That's what my grandpa fed, and that's what I feed, too."

"Oats? You're kidding! What about the mineral balance?"

No horse feed is more traditional than oats. Most horses eat oats readily, and their relatively low starch content decreases the risk of colic. However, oats by themselves do not contain sufficient levels of lysine, an amino acid that is critical for growth in young horses. The mineral profile is heavily skewed toward phosphorus, a fact that threatens the health of young horses needing a balanced calcium:phosphorus ratio for proper skeletal maturation. Broodmares also require large amounts of calcium for milk production, a need that is not met by an oats-only diet. Fortified feeds, whether produced as a textured, pelleted, or extruded product, are formulated to provide a complete nutrient profile for the class of horse that is being fed, and are a better choice than straight grains for most horses.

"I don't give my pony any grain at all. He's too fat already, and I can't work him because his feet are in bad shape."

"Have you tried one of the concentrated, low-calorie nutrient supplements?"

It's true that some equines don't need much grain, if any. The fat pony may benefit from a low-calorie vitamin and mineral supplement that will improve the condition of his hooves. There are other horses that need more energy, vitamins, and minerals than they can get from grass or hay, but traditional concentrates are not the best answer because of medical or genetic conditions such as tying-up, HYPP, or insulin resistance. Horses that tie up usually show a dramatic improvement in exercise tolerance when they are given specially formulated feeds that are low in starch but high in fat and fermentable fiber.

These special-needs equines may seem unique, but actually they are simply extreme examples of the fact that each horse must be fed as an individual. But how does an owner find the answer for each equine in her care? Fortunately, feed dealers can advise owners on equine dietary composition. Kentucky Equine Research Team Members use Micro-Steed, a software tool that analyzes a horse's current ration and compares it to the established nutrient requirements for that animal. Such an analysis allows a dealer to recommend the feed that most closely meets that horse's individual requirements. It's well worth the time and effort to investigate available products, choosing the type and formulation that's just right. ☺☺



Reprint Courtesy of Kentucky Equine Research, Inc.

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