

Down on the Farm



Feeding Yearlings: Optimum Growth Requires a Delicate Balance of Nutrients

by **KAREN BRIGGS**

Yearlings are a funny bunch. Gangly and half-grown, they're at that gawky stage where their hips are higher than their withers and their legs seem all knobby knees and hocks. And sometimes it seems that designing a correct feeding program for them is almost as awkward as the yearlings themselves. You want your youngsters to achieve their maximum height and full athletic potential, and you want them to look shiny and filled-out if they're representing your farm at the sales—but you don't want to overdo the nutritional support and create all sorts of growth-related problems. How do you walk that fine line?

The good news is that while yearlings still have quite a bit of growing to do, the rate at which it proceeds has slowed somewhat as compared to their foal year. Horses achieve about 90 percent of their full height by 12 to 15 months of age, as well as 95 percent of their mature bone length and 70 percent of their adult bodyweight. The remaining growth happens more gradually over the next few seasons.

Because the growth rate has decreased, the risk of developmental joint problems is lower than it is for weanlings. If your yearlings haven't developed them by now, it's likely that (with continuing, correct nutritional support) they're out of the woods.

Still, it's important to design your program for your

youngsters' optimum growth—not necessarily their fastest growth. Studies have confirmed that a rapid growth rate will not increase the mature size of a horse, and puts undue strain on developing bones and joints. Instead, your goal should be to achieve a steady growth rate from birth to maturity, avoiding any severe growth depressions or spurts by maintaining a good balance of nutrients in the diet, and minimizing stress.

Despite the expectations of the sales ring, a healthy yearling really shouldn't look like a slick miniature version of an adult. He should resemble the teenager he is—angular, somewhat unbalanced, and perhaps even a little on the lean side. Even if he doesn't particularly please the eye at this stage, he's right on track as long as he is growing and gaining weight, has a shiny haircoat and a bright attitude, and your veterinarian gives him a clean bill of health. It's a good bet he will become more balanced and proportionate as he approaches the age of two.

GOOD GRAZING: A HEALTHY START

During the spring and summer months, a good mixed grass and legume pasture may be all a yearling needs to achieve a moderate growth rate. To ensure that your pasture provides sufficient nutrients, get an analysis done of the forage growing on it—your local feed store or agriculture extension specialist should be able to provide this service, and the information it returns can be invaluable. For exam-

ple, if your pasture is largely legume-based (alfalfa or clover, for example), it may not deliver enough phosphorus to meet the requirements of yearlings. In this case, you may need to supplement this mineral so as to provide the correct calcium/phosphorus balance for good bone growth.

Because you want to aim for an average weight gain of between one to one and a quarter pounds daily, up to 18 months of age, you also want to determine whether your pasture has enough grazing to achieve that. Generally speaking, you want to provide at least 60 to 80 pounds of forage dry matter per 100 pounds of your yearling's bodyweight—which can usually be achieved with a stocking rate of about three yearlings per acre while forage is actively growing.

Of course, even if you are lucky enough to have that much safely fenced grazing space, hot, dry conditions may scorch your pasture and leave you with withered grass with no nutritional value to speak of. If your pasture is poor, the growth rate of your youngsters will suffer. In this case, you will want to supplement the diet with both hay and concentrates (grain), to ensure optimum growth.

When grazing on poor pasture, most Thoroughbred yearlings will need their diets supplemented with about one and a quarter to one and a half pounds, per 100 pounds bodyweight, of a balanced grain mix. The format of the grain you feed is less important than the fact that it is nutritionally balanced to support growth, with high levels of calcium and phosphorus, copper and zinc. This is usually much easier to achieve with a commercially balanced sweetfeed, pellet, or extruded ration, than it is by mixing your own.

Look, as well, for a crude protein level that will complement your forage. The overall level of crude protein a yearling should be getting is about 12.5 percent (12 percent for a 'long yearling', one over 18 months old), so if your pasture is low in protein—as it will be in the winter months, if you are experiencing a drought, or anytime if it is largely grass rather than legumes—select a higher-protein grain to balance it. If your pasture is rich and lush, and largely alfalfa or clover, choose a lower-protein grain mix. Many feed companies manufacture rations specifically designed to meet the needs of young, growing horses—it is far better to choose one of these, even if the cost is a little higher, than to feed a maintenance ration for mature horses, which may not provide sufficient nutrients and will eventually compromise your horses' growth.

In addition to grain, good-quality legume or mixed hay should be provided free-choice. Avoid all-grass hays, which usually don't deliver enough crude protein or digestible energy to support optimum growth. (Providing hay may also give herds of young horses an alternative to a habit they sometimes develop out of boredom—chewing each others' manes and tails.) An average 700 pounds, 12-month old yearling needs about seven to ten and a half pounds of hay per day.

Adding some supplemental fat to the diet can be as beneficial for yearlings as it is for mature horses. Not only does fat contribute to a shiny haircoat, it is also easily digestible and provides almost two and a half times as much energy,

pound for pound, as do carbohydrates. You may choose to top-dress corn or soy oil to your yearlings' feed, choose a fat-supplemented complete feed, or mix in some stabilized rice bran—any of these are an effective way to deliver extra fat.

FEEDING FOR THE SALES

Preparing a yearling for the sales pavilion is somewhat at odds with the principle of letting him be a gawky kid. Though the trend of over-fat, overdeveloped youngsters is on the wane to some extent, butterball yearlings are still seen in the sales ring, to the detriment of the eventual health and performance of the animal. When you're preparing your babies for the sales, keep in mind that a well-grown, healthy, strong yearling need not be over-conditioned to catch the eye of a knowledgeable buyer.

Producing that strong and healthy yearling is a combination of solid nutrition and a sensible exercise regime. Twenty-four hour group turnout, in a large, hilly pasture, is the most effective way to naturally condition yearlings—the result is wonderful muscle tone and a grace and balance that stabled horses do not usually possess. However, at some point it will be necessary to bring yearlings into the barn and accustom them to the handling, grooming, and leadline skills they will need to acquire before the upcoming sale.

When your yearlings first come inside, they may be anxious and temporarily lose their appetites. Feeding grain is likely to be detrimental in these first few days. Start with free-choice legume or mixed hay to reduce the risk of boredom and the development of stable vices such as cribbing or stall walking, and then gradually introduce a grain ration over a period of one to two weeks, in proportion to the exercise program you've mapped out and the horse's individual body condition. (On any day when yearlings are not exercised, their grain rations should also be reduced and replaced with an equivalent amount of hay.)

Even if your aim is a slick and well-covered yearling, it is unwise to push for maximum weight gain. Taking an underdeveloped yearling and placing it on high-energy rations in the hopes of building it up quickly may result in nutritional disaster (including musculoskeletal problems). Instead, stick with the basic guideline of your horses gaining one to one and a quarter pounds of bodyweight a day.

By the time your yearlings are ready to feel a saddle on their backs for the first time, their nutritional needs will be leveling off, compared to those required by mature horses. They'll have reached most of their adult height (though of course there'll still be considerable filling out to do) and will be ready to start learning the ropes of their future careers. And, that's the best possible pay-off for your attention to nutritional detail during those vulnerable formative years.

Karen Briggs is a freelance journalist and equine nutritionist who contributes to more than 20 horse-related publications in the United States, Canada and Europe. She is the author of Understanding Equine Nutrition (Eclipse Press) as well as three other books for children and adults, and owns three Thoroughbreds.