

Balancing Your Horse's Diet to Achieve an Ideal Weight

Too fat? Too thin? Expert nutrition advice on balancing your horse's diet to achieve an ideal weight.

By Sarah Christie

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Like people, some horses seem to stay fat off the smell of an empty feed sack, while others can consume enough calories to, well, choke a horse without gaining a pound. Few equine management challenges are more distressing than a "hard keeper" that remains bony regardless of how much he eats. Conversely, horses that are prone to obesity carry significant health risks. Finding the right diet for "special needs" horses doesn't have to be frustrating and expensive. With the variety of specialty feeds and supplements available, and a basic understanding of the equine digestive system, you should be able to design a feeding program tailor-made to achieve an ideal weight.

Find the Cause

James Kerr, DVM, has a thriving equine practice in Santa Rosa, Calif., where he specializes in performance horses. In addition to his practice, Dr. Kerr is also active with the American Endurance Ride Conference (AERC) both as a competitor and a ride veterinarian. He says he sees more horses that are overweight than underweight. "People love them so much they kill them with kindness," Dr. Kerr says. "They want to provide for their every need, which translates into lots of rich food and not enough exercise."

At the same time, he also acknowledges that most underweight horses get that way because of poor management, not a finicky metabolism. So before declaring a moratorium on alfalfa hay or breaking out the beet pulp, it helps to understand why your horse has weight issues. Genetics definitely play a role in regulating equine body mass and metabolic rates, but the environment, exercise and overall health also contribute significantly to whether your horse is ribby or rotund.

Hidden Reasons for Hard Keepers

In the case of the underweight horse, "It's essential to eliminate any hidden health concerns that may be contributing to your horse's condition," Dr. Kerr says. Illness, parasites, dental problems, gastric ulcers and stress can all contribute to weight loss. Veterinary exams can help rule out diseases that lead to weight loss. Sticking to a regular deworming program will help safeguard against internal parasites. And scheduling an annual dental exam will ensure that your horse is actually eating all the food you serve up, instead of dribbling it out onto the ground or passing it through undigested.

Stress can also contribute to weight loss. If your horse is a chronic stall walker, weaver or fence runner, he is burning calories needlessly, all day long. Simple management changes, such as daily turnout or the addition of a stall buddy, can alleviate these behaviors. Rigorous training schedules also cause residual stress after the workout is over, and can lead to gastric ulcers that put horses off their feed. Don't forget horses need vacations too. If your horse is getting mentally "cooked" from intensive training, consider giving him a month or two off to relax and regroup. If he acts hungry but doesn't clean up his feed, or exhibits frequent, mild colic symptoms, you may want to ask your veterinarian to perform a gastric endoscopy to determine whether a stomach ulcer is present.

Risks of Being Overweight

Conversely, obesity carries significant, potentially life threatening consequences. "Laminitis is the number one danger for overweight horses," Dr. Kerr says. "A cresty neck, bubble butt and fat deposits over the withers and shoulders are warning signals that you are teetering on the brink of founder." Kidney and liver disease, as well as glucose intolerance are also risk factors for overweight equines.

If the weight gain is sudden, not related to any changes in feed or exercise, and does not respond to reduced rations, consult your veterinarian. This could be a symptom of a metabolic condition. Proper diet (low starch/low sugar), exercise, and in some cases, medication, can help manage the problem. Also, keep in mind that a potbelly doesn't necessarily mean weight gain; instead, it could be a sign of some other health condition, such as parasite infestation or equine Cushing's disease.

Basic Feed Needs For All

The principles of achieving and maintaining optimum weight in horses are the same as they are in humans: balancing calories in, calories used and calories stored. Finding the right combination of roughage, protein, fat and carbohydrates takes some experimenting. Calorie-rich feeds that are mostly comprised of carbohydrates and sugar—sweet feeds—can

lead to problems such as founder, colic or kidney strain. Too few calories can rob a horse of essential nutrients and cost you a winning performance. Part science and part intuition, a successful feeding program balances calorie input with energy output.

One feed requirement all horses have in common is the need for high-quality forage. "Horses are grazers by instinct," says Sue Garlinghouse, DVM, MS, of Upland, Calif. Dr. Garlinghouse specializes in equine nutrition and has published several research articles on equine physiology. "In a natural setting, horses will graze up to 22 hours per day. So I like to keep something in front of them to munch on all day long, or else they will start to eat the fence posts, the barn and the trees." The key to preventing obesity in the face of an all-day buffet is selecting the best quality hay and the appropriate type.

Weather Considerations and Feed

Additional feed is essential for maintaining body weight in cold weather, especially if rain and wind are involved. For each 10 degrees F below 32 F, two pounds of additional hay above what is normally fed is needed to maintain body weight. Add wind and rain, and requirements increase by as much as 15 additional pounds. Along with extra hay, you can bump up the calories with fat supplements, such as a top dressing of 1/2 to 2 cups of corn oil daily.

The best plan is to provide a warm, dry shelter, and a waterproof blanket when needed, to protect your horse from the elements, in addition to a moderate increase in calories. Horses thrive on hay with a crude protein level of 10 to 12 percent. "Dairy quality" alfalfa can contain as much as 24 percent protein, whereas grass hays and some grain hays can be as low as 6 to 8 percent protein. Combining high- and low-protein hays and adjusting the ratios in response to weight fluctuation is one of the simplest ways to maintain optimum weight.

With a gut evolved for almost non-stop grazing, horses should consume between 1.5 percent to 2.5 percent of their body weight daily in forage. For an average, 1,000 pound adult horse, this means between 15 to 25 pounds of hay per day. Feeding less than this per day can upset the digestive process, lead to nutrition imbalance and increase the chance of colic.

Packing on Pounds Safely

As caloric needs increase with exercise or other physiological demands, the grain bin might seem the logical place to turn to. With 30 to 50 percent more digestible energy per pound than hay, any grain or grain-based feed product provides more calories and energy per mouthful than hay or pasture grass. Corn packs the most energy per pound, followed by barley, then oats. These grains are frequently combined in a mixture with molasses to reduce dust and make them more palatable, which also adds calories in the form of sugar (simple carbohydrates).

So why not simply bump up the grain ration until the weight begins to pile on? According to Dr. Garlinghouse, large amounts of grain can cause side effects ranging from disruptive to deadly.

"Many horses get overly rambunctious on grain," Dr. Garlinghouse says. "If you want them to be able to focus during training and not be jumping out of their skins, large amounts of grain are a problem." More importantly, Dr. Garlinghouse says that studies show the risk of colic increases as grain rations rise. Laminitis, or founder, is also a threat with excessive grain. Additionally, some horses don't seem to process carbohydrates efficiently, leading to a propensity for metabolic problems that can lead to such conditions as chronic "tying up." Dr. Garlinghouse never recommends feeding more than 3 pounds of grain per feeding, or more than a total of 8 pounds per day. Instead, she says supplements and specialty feeds are a safer way to get more calories into the diet without the health risks associated with feeding a lot of grain.

Feeding for Weight Gain

Hay

Alfalfa hay is often recommended for weight gain. Alfalfa cut at the beginning or end of the growing season is appropriate for horses because of its protein levels. Even when weight gain is the goal, avoid feeding alfalfa hay cut at the height of the growing season because of its high protein levels. (Dr. Kerr suggests not exceeding a 14 percent protein level.)

Complete Feeds

"Complete feeds" refer to any highly digestible processed feed product made from a combination of chopped forage, grain, vitamins and minerals. Underweight horses can often benefit from the addition of a complete feed to the diet.

A good complete feed will be high in fiber and include trace minerals, fats and vitamins. Although billed as nutritionally

"complete," Dr. Garlinghouse recommends including at least a low-protein grass hay to give horses something to munch on, thus reducing the risk of colic by keeping the gut active.

Senior feeds are a specialized type of complete feed formulated for older horses. They are typically heat extruded milled grain products, some with higher forage contents than others. They are designed to be more digestible and easier to chew. Because older equines often have trouble holding their weight, particularly in cold winter weather, senior feeds usually have a higher percentage of fats, with a combination of grains, forage, rice bran or stabilized oils.

Fabulous Fats

If after adjusting feed amounts, formulations and exercise your horse still doesn't achieve the desired weight gain, it may be time to consider a weight-gain supplement. The quickest route to increased weight gain without risky side effects is by adding fat in the form of a top dressing.

"Horses utilize fat much more efficiently than human beings do," Dr. Kerr says. "It is a good source of energy as well as an additive for weight gain." Fat has a number of benefits for the working equine. Not only is it 85 percent digestible, it's free from carbohydrates, which means it doesn't contribute to a risk of colic or founder. It produces 30 percent less heat than protein in the metabolic process, and it is an easy way to increase calories without increasing feed volume. Not to mention the glossy coat it produces!

Commercial weight-gain supplements often contain stabilized rice bran or flaxseed products as major ingredients. Both are excellent sources of high-quality fat calories. Stabilized rice bran alone can be fed as a top dressing, but it is extremely high in phosphorus, which creates the possibility of a calcium/phosphorous imbalance unless the diet is carefully modified. Flaxseed meal can also be fed alone. Freshness is the key, and it can be ground at home from whole flaxseeds using an electric coffee grinder. Flaxseed must be ground for horses to benefit; otherwise it passes right through the digestive system.

The most economic way to increase fat calories in the diet is by adding common vegetable oil. One cup of corn or safflower oil contains 240 grams of fat, the equivalent of 1.2 pounds of corn or 1.5 pounds of sweet feed. Thus it can be substituted as part of the daily grain ration. But standard cooking oil does not contain the beneficial fatty acids found in flaxseed oil, and it is important to store properly to avoid rancidity.

Digestive Enzymes

The overall health of a horse's digestive tract will affect his ability to gain and maintain weight. When digestive enzymes and bacteria don't function properly, it can interfere with nutrient absorption and utilization. Supplements and complete feeds provide more fats, carbohydrates and vitamins, but "probiotics" and "prebiotics" may help the digestive tract make optimum use of those nutrients.

Probiotics contain yeast fermentation (*Lactobacillus*) products that may help repopulate the hind gut with good bacteria. These beneficial bacteria aid digestion, helping horses get more nutrition out of what they are eating. While a healthy horse probably has enough gut flora, probiotics can be useful after a bout of diarrhea, rapid feed changes, debilitating disease, gastric ulcers, or following a course of oral antibiotics.

Prebiotics are the newest advancement in equine nutrition. Unlike probiotics, prebiotics don't contain actual bacteria, but instead contain ingredients that enhance the entire gut's ability to support bacterial function. They are formulated to increase digestion and absorption by feeding and improving the environment of the good bacteria that reside there.

Tips for Shedding the Pounds

For weight reduction, Dr. Kerr recommends removing all alfalfa and grain from the diet and feeding strictly grass hay, along with gradually increasing daily exercise, until body weight returns to normal. An overweight horse should be consuming mostly low-protein feed. Dr. Kerr's best advice for the overweight equine is simple: cut back on the calories and increase the exercise. It's important not to deprive even an obese horse of the minimum required daily amounts of roughage because it can lead to colic (daily forage rations should weigh no less than 1.5 to 2.5 percent of a horse's body weight).

As for a sensible exercise program for your horse, start by slowly increasing the frequency and duration of your rides. If you are a weekend rider, throw in a couple of mid-week sessions. If you ride for half an hour every day, up your saddle time to an hour or so. If riding isn't an option, consider longeing at a medium trot until your horse breaks a light sweat, or at least putting him on a hot walker for an hour or so a day. In the wild, horses can typically cover 20 miles per day in search of fresh grass and water. While most riders can't commit to that much time in the saddle, this serves as a good reference point for what a healthy horse can accommodate under natural conditions.

Long Term Weight Maintenance

Whether your horse is underweight, overweight or just right, it's important to evaluate his condition through advancing age, environmental changes and performance demands. Addressing unwanted fluctuations before they become potential health risks is the most important aspect of equine weight management.

A balanced approach to a feed regimen that mirrors nature as closely as possible, while incorporating more advanced formulas and targeted nutritional supplements when necessary, will keep your horse not only looking and feeling his best, but also performing up to his optimum potential.

Further Reading

Meeting Your Horse's Nutritional Needs

Seven Feeding Myths Shattered

Feed Change

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