

Underweight & Overactive

Sometimes it's challenging to keep weight on a horse. A hyperactive horse might burn off too many calories to stay in optimum body condition, while an old broodmare with digestive inefficiency can lose weight during the stress of lactation.

In this article we'll look at ways to help get weight back on these problem horses.

What's the Reason?

"There are usually specific reasons the horse is underweight," says Stephen Duran, MS, PhD, a nutritionist in Weiser, Idaho. "It may be an old horse that's losing

nutrient efficiency or a horse with poor teeth. It may be low in the pecking order and not getting its share of the feed."

The first thing to do is find out why the horse is thin, and you might need help from your veterinarian to figure it out.

"Any disease process is catabolic—

breaking down body tissue," explains Duran. "If a human gets cancer, for instance, one of the symptoms is weight loss. If an animal is sick, they don't feel like eating. Any disease condition or injury can cause the horse to lose weight," he says.

Amy Gill, PhD, an equine nutritionist in Lexington, Ky., says it's often a good idea to have a full diagnostic workup by your veterinarian to find out why a horse is losing weight—to make sure there's not an infection or some type of organ or system failure.

"You also need to see if the horse has ulcers, since this can be a cause of weight

Tips for putting weight on thin and overactive horses



SHANEEN KOHLER

Sometimes it can be challenging to keep weight on horses, especially if they are regular active.

SPORTS MEDICINE

can fix the diet and feed all the right things, but if the horse is stressed or sick, it doesn't matter how many changes you make in the diet. You must deal with the underlying problem first."

Overtraining can also shut down appetite. As work increases, the appetite also increases, until a certain point.

"If you keep increasing the exercise, then the appetite starts going the other way," says Duren. It might take a while to correct this problem and get the horse doing well again.

"Another problem I see is with young, growing horses that people are preparing for show or sale," notes Duren. "They keep increasing the grain being fed to a point where the horse can't digest it efficiently in the small intestine, and it spills over into the hindgut. This changes the population of bacteria in the hindgut, and digestion becomes less efficient. You are feeding more and getting less benefit from it. We see this a lot in racehorses and in young horses being pushed hard."

Parasites can rob a horse of nutrients and cause weight loss. There are excellent deworming drugs today, but some people don't keep horses adequately dewormed.

"Sometimes when a veterinarian is trying to put weight on a horse, he/she will do multiple-day deworming, using a power pack deworming program to very aggressively clean out the digestive tract so parasites aren't stealing nutrition," says Duren.

Some horses are harder to keep weight on, such as a stallion who paces and frets during breeding season, using up energy stall walking or pacing in his paddock.

"The key here is knowing your horse," says Duren. "If he gets thin during breeding season, adjust his body condition beforehand, so he has some reserve going into

PSYCHOLOGY AND PHYSIOLOGY OF FEEDING SCHEDULES

Feed Small Amounts, Often

Rather than feeding large meals once or twice a day, break a grain/supplement feeding into multiple small meals. The horse will eat more total feed through the day this way because he's more interested in each small meal. It's fresh, and therefore more appetizing.

"Psychologically, you want a horse eager for his feed, looking for it, and also want him to realize he's finished his meal," says Amy Gill, PhD, an equine nutritionist in Lexington, Ky. "If you feed five or six small feedings per day, this not only gives him fresh concentrates every few hours, but also stimulates him to nibble his hay again afterward. I showed this in research when I did my dissertation. We fed concentrate two or 16 times per day. The horses that ate 16 times per day consumed more hay and spent more time eating hay."

More frequent eating also keeps a horse from becoming bored. The horse that tends to get "hyper" on grain, or bored and frustrated (spending time and energy cribbing, stall walking, or weaving), will be more content because frequent eating gives him something to do.

"Eating more often helps keep the hyperactive horse busier and quieter," says Stephen Duren, MS, PhD, a nutritionist in Weiser, Idaho. "If you give him multiple small meals, he keeps coming to the feed tub, and this helps occupy his time through the day."

Frequent, small meals simulate grazing and help the basic physiology (and psychology) of the horse.—Heather Smith Thomas

the breeding season. The same with riding horses—you don't want them to start the season thin. And remember that when you increase the exercise, they increase their calorie requirements. So if you're not making feed changes, they will lose weight."

Each horse has its own metabolism rate, and certain horses burn more calories.

"Some horses fret when worked, whether you can see it or not," says Duren. "They experience more stress than other horses doing the same work, and stress is catabolic. It requires more calories to keep this from dragging that horse down in body condition."

Start With Forage

"Depending on how much I know about the horse, I generally start with the basic hay or pasture, to see what kind of hay is fed or if the horse has access to pasture," says Duren. He adds that there are ways to increase caloric content of the hay, such as switching from a low-quality grass hay to a

mixed hay, or adding a small amount of alfalfa hay. Legume hay has a higher calorie content per pound than grass hay. This is also helpful for horses with ulcers; legumes generally have a higher level of calcium than grass hay, and calcium works as an additional buffer against stomach acid.

"You also want to stimulate the horse's appetite," says Gill, noting that legume hays are more palatable. "This also helps a horse with ulcers, because the more he eats, the more saliva he produces, and hence more bicarbonate."

Many horses will nibble on alfalfa even if they are off feed and won't eat grass hay or concentrates.

"Protein content is also important because we want to build muscle in the thin horse, and this takes protein and specific amino acids," says Gill. "The higher protein content of the legume hay is helpful. In general, legume hay is about 15-20% protein, whereas timothy hay is 7-9%. The quality of the protein is also important to getting the right amino acids. People tend to forget about that, but that's more important than actual protein content."

Duren encourages increasing the volume of hay being fed, saying, "Some people limit hay, basing the ration on grain rather than hay. I try to have them maximize the use of good-quality hay. Sometimes this is enough to start the horse in the proper direction, and you don't get into so much risk for digestive upset."

Once horses start eating more forage, they feel better, so appetite improves and they're more interested in cleaning up the grain portion of their diet. If you do need

GAINING WEIGHT

No Instant Fixes

Don't expect a visible change immediately when you start a weight-gain diet. "To change one body condition score (in the 1 to 9 system) is about 40 pounds of body weight," explains Stephen Duren, MS, PhD, a nutritionist in Weiser, Idaho. "If a horse gains half a pound per day, that takes 80 days (to go up one body condition score). A horse usually doesn't become thin overnight, and he doesn't gain it back overnight. People want an instant fix. You can certainly get a horse to gain more than a half-pound per day, but you must be careful. The faster the weight change, the more extensive the diet change must be, increasing the chance for digestive problems and upsets."

These things must be kept in perspective, and changes made wisely and gradually.

—Heather Smith Thomas

STRESS, INSULIN, STARCH, AND SUGAR

Avoid Excess Starch and Sugar

When adding calories, limit the sugar content. “We want to reduce reactivity, so the main thing we talk about is lowering the level of sugar and starch in the diet,” says Amy Gill, PhD, an equine nutritionist in Lexington, Ky. “Sometimes hard-working horses are insulin resistant due to being stressed. They have high cortisol levels, which is the result of stress. Cortisol is antagonistic to the effects of insulin. If you feed a diet high in starch or sugar on top of that, it’s harder for the horse to digest and assimilate the starches and sugars.” —Heather Smith Thomas

to feed more concentrate, horses will eat it much better than if you feed more concentrate without increasing the forage.

You can gradually switch the type of hay to increase calorie density, then increase the volume of hay provided. Then you can address the issue of grain. With some horses, however, all it takes to start gaining weight is to change to better hay and/or increase the volume of hay being fed.

“Access to good-quality pasture will help a healthy horse gain weight,” says Duren. “Horses will graze 17 hours a day. Grass that’s green and growing is ideal feed. The horse should be gradually introduced to pasture if he hasn’t been on it.”

Turning him out without a gradual adjustment period can cause problems such as colic or grass founder.

High-Quality Fiber

For a thin horse that needs more feed,

PSYCHOLOGY OF WEIGHT LOSS**Keep Him Happy**

Amy Gill, PhD, an equine nutritionist in Lexington, Ky., tells horse owners to consider a horse’s environment and stress level if he loses weight, even before considering diet changes. The stress a horse is experiencing might not be obvious at first glance. A nervous horse that worries all the time is often too intensively managed, working too hard, or in an unnatural situation.

“You need to bring everything back to center and get digestive health back in balance,” says Gill. “If you can maximize use of the hindgut and proper fermentation, this can help alleviate a lot of problems, both psychologically and physiologically. And if you can find a way to turn him out more or hand graze him in the afternoon, this will help.

“If it’s a performance horse, maybe you can take him on a quiet ride in the afternoon in a peaceful setting,” adds Gill. “Find ways to make him happier, such as cutting windows in his stall so he can see other horses and not feel so isolated. It’s amazing how these little things can help alleviate stress. Everything is related; you can’t segment horse care into feeding, exercise, etc. There’s not one variable that’s mutually exclusive of another. How you deal with the horse should be total, comprehensive management, taking his total environment into consideration.”

—Heather Smith Thomas

choose a concentrate with more soluble fiber and a lower concentration of starch. One method Duren uses for getting more high-quality fiber and calories into a horse, if the owner doesn’t want to feed grain, is to feed alfalfa pellets or beet pulp and add fat to it. Beet pulp is a great carrier for fat.

“Typically you soak beet pulp before feeding it, and mixing oil into that semi-moist beet pulp is a good, low-sugar method for adding calories,” says Duren

Research has shown that beet pulp and soy hulls have the same digestible energy value as oats. “Being a fiber product, they are safe to feed (like hay), but have the energy density of oats,” says Duren. “We use a lot of beet pulp and soy hulls in racing diets to help horses maintain body condition without relying solely on the small intestine; we’d rather use the hindgut and fiber fermentation because it’s safer for the horse than a high-carbohydrate diet. If you look at the Kentucky Derby horses, this is what they are eating—racing diets that utilize oil and super fibers, along with some simple carbohydrates (sugars),” says Duren.

Feeding Fat

The underweight horse needs more total calories in his diet, which can often be provided by adding fat. “Fat has roughly three times as many digestible calories as an equal weight of oats, so you can make progress toward weight gain if you can get the horse to eat fat,” says Duren.

There are a lot of products on the market that are designed for putting weight on horses, noted Duren. Some grain mixes have a higher fat content and thus a higher calorie content per pound than a regular grain. There are also some high-fat supplements. He says one that developed a following a few years ago is stabilized rice bran, which is 20% fat. Now there are some products that contain 40% fat.

“These are usually a pellet or a meal,” he says. “Farnam has one called Weight Gain. Start to Finish has a product called Cool Omega 40. Those are both 40% fat,

designed for horses that need a very high calorie diet. The vegetable oils (corn oil, soy bean oil, rice bran oil, etc.) are 100% fat.”

Some people don’t want to feed grain, so if they have a thin horse that needs to gain weight, they can use an alfalfa pellet and top dress oil on the pellets, adds Duren. The alfalfa pellet is a good carrier for the fat since the oil sinks into—and is absorbed by—the pellets. Using alfalfa pellets and oil rather than grain is also a good way to control the sugar content of the diet if the owner doesn’t want to feed grain due to behavioral issues. “The horse might gain weight when fed grain, but he is too hyper on a high grain diet,” noted Duren.

He developed a product called Cool Calories, which is 99% fat, but it’s dry rather than an oil. “You can use a scoop to add it to a ration, rather than getting your feed tub messy with oil,” he explains. “It’s just a different form. There are lots of supplements now—from rice brans to the dry fat products to plain vegetable oil—that can all be used to add fat to the diet, and any fat will increase the caloric density of the diet.”

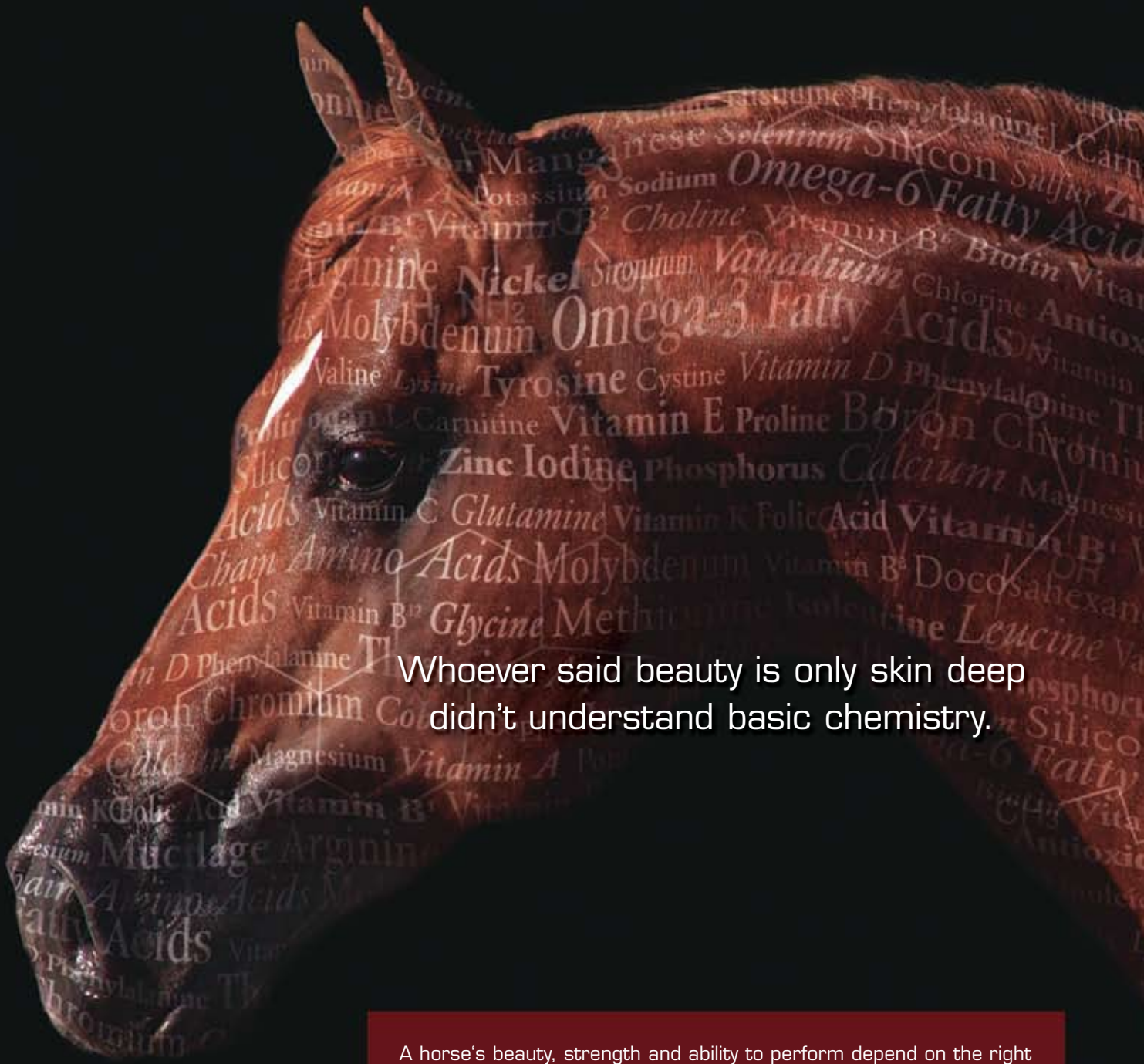
Take-Home Message

If an owner is unsure about the products available to help a horse gain weight, or what might best suit a specific horse, an equine nutritionist is a good source to answer questions.

If a horse needs more calories, make sure he has free access to good-quality forage and feed a fat source and/or super fiber (such as beet pulp). Those can be much more successful for helping your horse put on weight than adding more grain to the diet. 🐾

ABOUT THE AUTHOR

*Heather Smith Thomas ranches with her husband near Salmon, Idaho, raising cattle and a few horses. She has raised and trained horses for 45 years, and as a freelance writer has published 13 books (including the recently released *Care and Management of Horses*, available at www.ExclusivelyEquine.com) and more than 5,400 articles for horse and livestock publications. She is a member of American Horse Publications, American Agricultural Editors Association, and Livestock Publications Council.*



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