



*Horse Care*

# Maintaining Proper Weight For Stallions

by HEATHER SMITH THOMAS

Keeping proper body condition is important before, during and after the breeding season. A stallion too fat is more likely to become sluggish (less desire to breed mares) and develop health problems related to obesity. A stallion too thin may not have the energy and endurance needed to hold up through the breeding season.

Stephen Duren, MS, PhD, equine nutritionist (Performance Horse Nutrition) says that stallion managers are starting to pay more attention to proper body weight. "When I was in graduate school at the University of Kentucky it was very common to see stallions that were very overweight. They'd made a name for themselves on the racetrack and come back to the farm—and once they recovered from any racing injuries they might have, they were on good feed, good pasture, with plenty of grain, and often became overweight," he says. This is one reason so many ended up with laminitis (and often had to be put down), and a significant number had heart problems, dying of what appeared to be a heart attack.

"I don't know if the necropsy would confirm that, or what exactly happened, but those stallions certainly had difficulty covering mares. Libido also became a problem. Most of the young stallions will exercise themselves; they'll run up and down the fence and stay physically fit. But many mature stallions who have been breeding mares quite a while are more laid back," says Duren. The stallion starts to realize that if he is needed, the stallion handler will

come get him—there's no need to become too excited. He develops a more philosophical attitude and may be more apt to just stand around.

To counter this problem, many farms have developed some kind of forced exercise program for their stallions in recent years. This may vary from longeing to automatic exercise machines (a walker or Equi-Ciser). "A few farms, like Three Chimneys, have someone ride their stallions. They have a track and actually gallop the stallions regularly. They trot or gallop, whatever the stallion feels like doing; it's not a set regime," says Duren.

## **Nutrient Requirements Of A Breeding Stallion**

"Regarding feed, the stallion's requirements are similar to those of a performance horse in light to moderate exercise, according to NRC recommendations. If you feed some stallions at that level, however, they will gain weight. With others, that's about right," he says. You always need to customize the diet to fit each individual.

The only dietary factor you can observe visually in the stallion is caloric (energy intake). Too many calories will make him fat; too few and he'll lose weight. A simple evaluation of body weight and condition—how fat or how thin the stallion is—will show you whether you have the energy density of the diet correct. If the stallion is too fat or thin, it's your fault, since this is the easy part of the diet to regulate, explains Duren.

Whether he's getting enough copper, zinc, selenium, etc., is more difficult to measure and you may not be able to tell until you get into a deficiency problem. But energy density of the diet and body condition of the stallion is something every farm has the ability to see and to fine tune to fit the horse's need.

"We did a study at Gainesway Farm, sampling pastures and daily recording the amount of other feeds the stallions were getting. The Gainesway stallion barns have four stallions per barn—with many small barns all around the stallion complex. We put a hanging scale in every barn and weighed every feed ingredient every day. Those stallions were all over the board in the number of calories they received. Some of the young stallions who still had a fast rate of metabolism (because they were very physically fit and exercising themselves) ate a lot of feed," he says.

"This is one of the few studies that's been done with a large number of stallions, in which the farm was telling us



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what they did. They weigh their stallions regularly and monitor them, so this gave us a good indication of what the horses were actually eating,” he says.

Regarding nutrition and fertility, a balanced diet (containing proper amounts of various nutritional requirements for vitamins, minerals, etc.) is needed for health and fertility. The question many people ask a nutritionist, however, is if there is any feed ingredient, such as vitamin E, that might make a stallion more fertile—able to settle more mares. “The studies that have been done, however, didn’t show that added vitamins or minerals (above established requirements) were very effective in changing conception rates. Recent studies at Texas A&M, however, have shown that in stallions (breeds other than Thoroughbreds) where semen is collected, frozen and thawed, changing the fat content of the diet—specifically the type of fat—does significantly affect how well sperm will freeze and thaw. This study was looking at some of the Omega-3 fatty acids, and what these did for specific functionality of sperm. Now there’s renewed interest in effects of feed on reproductive performance,” he says.

#### **Importance Of Proper Body Weight**

The big influence that weight has on a breeding stallion is first on health and longevity, and secondly on his libido. If he’s too fat he may become sluggish and if he’s too thin he won’t have the stamina he needs and may lose his desire to breed. Managing these stallions to maintain proper body condition is easy to do, and will increase their longevity and breeding performance. Most breeding farms are addressing this today, as compared to 20 years ago when it was more common to see stallions die from complications of being overweight.

Many farms now weigh their stallions regularly—once a month or at least before and after the breeding season. If a horse weighed 1,200 pounds last year before breeding season and now weighs 1,275 pounds, this could be a signal that he’s getting too much feed or not enough exercise.

“While working at Three Chimneys Farm, we weighed the stallions every month. If any of them started gaining weight, their grain intake was adjusted appropriately and their exercise and turnout was adjusted as well,” says Duren.

#### **Exercise**

“With yearling preparation becoming as advanced as it is now, we’re also doing more for stallion exercise. Years ago we used to just hand walk yearlings. This actually did more for the fitness of the handler than it did for the yearling. Then they started using the early treadmills, and round pen exercise, and now many of those farms have the new walkers that allow their horses to move at a walk or a trot without being restrained. The horses can move freely within the compartment. Some of the diameters of those are very large, so you don’t have to worry about stress on their legs from traveling in a circle. These can also be reversed, to go both directions. Some of the options we now have for exercise, and some of the things various farms have done to facilitate these techniques are now being used for stallions,” says Duren.

The stallions may have a forced exercise program where they are actually ridden, or exercised in an Equi-Ciser or doing round pen work. After a veterinarian or stud manager has determined the soundness of the stallion, the frequency, duration and intensity of the exercise can be monitored according to the soundness and body condition of each stallion. Fitness conditioning for a stallion is just like conditioning any equine athlete, starting gradually and then increasing the length and speed of the workouts. Depending on how fat and out of shape the horse is will determine the intensity of the preliminary work.

Depending on the activity of the stallion, his personality and what he does for self exercise (in the paddock), a forced exercise program may be minimal or intense. Some get plenty of exercise on their own, while others need regular forced exercise. Once you decide a stallion needs an exercise program, you must determine his physical soundness, and design the exercise program so that fitness can be achieved with the facilities you have, without creating or aggravating injuries.

On many breeding farms, the mares go under lights in December and, at the same time, the stallions are started on a forced exercise program (to have them more fit by breeding season) if they are not already on an exercise program. It takes 60 to 90 days for sperm production and maturation, and farm managers want to have stallions healthy and fit well ahead of the breeding season. “If you will be breeding mares in February, you need to make sure everything is right—with the stallion—in November and December,” says Duren.

If he’s too fat, or too thin, fertility and libido may be affected, so it’s wise to get him on target several months ahead of the breeding season. “Most of the forced exercise programs, if they are not year round, are begun by the time mares are put under lights. Also, many breeders want their stallions looking their best for November sales, when people come to the farms and want to look at the stallions. A lot of adjustments can be made in late fall, to make sure the stallion is at his optimum weight. Many of the automatic exercise facilities have a roof over them, so you don’t have to worry about exercising on frozen ground or bad footing,” he says.

#### **The Overweight Stallion Who Can’t Exercise**

When a stallion isn’t quite sound enough to undergo regular exercise, you must make more adjustments in diet to keep him from becoming overweight. “It’s common for stallions who have turnout time in lush pastures to put on too much weight. If a stallion is overweight and not sound enough to go on a regimen of forced exercise, his turnout needs to be limited or a paddock used that doesn’t have much grass—where he can still move around and self exercise, but not take in so many calories.”

It also helps to switch from traditional grain concentrates (that not only have vitamins and minerals but calories) to some of the supplement pellets. These will give the needed protein, vitamins and minerals to balance the diet, but with

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less calories. “All the feed companies have versions of this type of pellet—the type you’d see in a sweet feed. They sell these separately as a low calorie vitamin/mineral pellet,” says Duren.

“If a stallion is overweight he should still have the hay portion of diet, but instead of getting five or six pounds of textured sweet feed or some other high calorie feed, he may only need a pound and a half of the vitamin/mineral supplement,” he says.

These pellets are palatable enough that most horses will eat them. “When you are not offering a high volume of feed, a horse will be less picky. They do want to eat something. Palatability usually doesn’t become an issue unless you are trying to get a horse to consume more calories (such as a racehorse who is hard to keep weight on). They may be very selective. If they have to eat 12 pounds of grain, they may refuse to eat it if you pour the supplement on it. In contrast, a breeding stallion on a diet—in which you’ve taken some of the volume of feed away—will be less picky because even though you’ve made it less tasty because it contains more vitamins and minerals, he still wants to eat.”

In central Kentucky, you can also change from a mixed hay (grass, with some legumes in it) to a grass hay, and this will decrease the number of calories in the hay portion of his diet. This will still give the horse the volume he needs for proper digestion and to make him feel full—so he won’t develop a stall vice. The grass hay is just less energy dense.

### **Analyzing The Diet**

“Surprisingly, not many farms in Kentucky routinely

analyze their forage. So a nutritionist will give a conservative estimate of what the forage contains, and formulate the diet around it. We analyze so many forages that we know about what they’ll be in each region. Feed companies did that, to know how to complement the various forages. They wanted their feeds to work. The farms mainly analyzed their pastures—soil and chemical quality of grass. The hay analysis was usually left to the feed companies, to sample and make sure it was in the proper ball game.”

Many farms purchase their hay, because in central Kentucky the growing season isn’t ideal for putting up hay without too much moisture on it, due to the humidity. It’s difficult to get good quality hay harvested properly, so a lot of hay is brought in from drier areas. Thus the farm is relying on a hay supplier to provide good quality hay—tested by a feed company that has checked it to make sure the grain will complement it.

“Most of the time when we formulate a grain product, we formulate it with enough leeway that we safely overfortify. We don’t want to oversupplement something like zinc or selenium, for instance. In central Kentucky, most people feed plenty. It’s far harder to balance a diet (using the grain ration) in the West where the horses may only get three pounds of grain per week. A Thoroughbred stallion is usually getting six to eight pounds per day,” says Duren. 🐾