

## Feeding the Stallion: Improper Nutrition can have a Negative Impact on a Stallion's Performance.

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Many consider the stallion as the star of the breeding farm. Worldwide, millions of dollars are spent promoting and advertising stallions to attract suitable mare owners. In turn, mare owners spend thousands of dollars on stud fees, and shell out hundreds of dollars in veterinary care to prepare their mares for natural coverage or artificial insemination. The stallion is expected to be in top health, physically fit and able to perform on demand when a mare arrives at the breeding shed or when semen is artificially collected. Certainly nutrition plays a key role in maintaining the health and condition of the stallion, before, during, and after the breeding season.

### Ideal Body Condition for Stallions

Routine evaluation of your stallion's body condition can be an effective tool for determining if you are underfeeding or overfeeding him. (See Table 1)

An extremely thin stallion (condition score 3 or less) may not have the energy stores needed to make it through an active breeding season without compromising performance. Similarly, the stallion should not be allowed to become fat (condition score of 8 or 9).

It is important that stallions remain in proper body condition during breeding season. An under-conditioned, or over-weight stallion may not perform to his full potential.

The prima donna treatment of stallions often leads to them being over-fed. Extra weight creates additional stress on big, stout horses, which can aggravate arthritis and increase the risk of developing laminitis or causing a heart attack. Obese stallions are also anecdotally observed to have lowered libido.

Ideally, stallions should be maintained in a moderate body condition (condition score of 5 or 6) year round. A moderate body condition will provide enough fat cover over the ribs making them hard to see, but still easy to palpate. The withers will appear rounded and the shoulders and neck will blend smoothly into the body.

Some stallions may lose weight during a breeding season while others are able to maintain themselves in good condition. For stallions that tend to lose condition, a higher degree of body fatness (condition score of 6 or 7) should be established before the breeding season to ensure stallions do not become too thin during the breeding season.

The stallion's body condition and body weight should be monitored on a weekly basis during breeding season and adjustments made to the diet accordingly.

### ***Pre-Breeding Season***

Unless the stallion is being ridden or shown regularly, his nutrient requirements in the off-season are relatively low. In contrast, stallions that are exercised regularly will have higher nutrient requirements and should be fed similar to a performance horse.

The stallion should be in good body condition going into the breeding season. If the stallion is already in good condition in the off-season, he should be fed to maintain that condition. If you anticipate the stallion may lose weight, he should enter the breeding season in a slightly higher body condition so that he does not become too thin during the season. Take advantage of the months leading up to the breeding season to improve the stallion's body condition. Adding an additional 3 to 4 pounds of grain to the existing diet can improve the stallion's body condition by one level in 3 months.

## **Breeding Season**

In general, mounting and breeding a mare or a phantom can be thought of as “work” performed by the stallion. The nutrient affected most by work is energy, or the caloric content of the diet. Thus, providing adequate dietary energy is of the utmost concern with the stallion.

The amount of use a stallion receives during the season, as well as his psychological response to breeding, contribute to the amount of energy he expends during the season. Some stallions will service over 200 mares per season, while others will cover just a few. Even if a stallion has a full book of mares, the actual amount of energy expended by the stallion during the act of mating is quite small. However, the stallion’s behavior and attitude towards the breeding season can substantially increase his dietary energy (calorie) needs. Some stallions get nervous, pace, and fret, while others remain calm and quiet. Therefore, the diet of the stallion should be individualized to reflect the work they are doing and their behavioral responses towards breeding.

The stallion should be fed high quality hay at a minimum level of 1.5% of body weight (Table 2). Depending on the time of year, good quality pasture may furnish some or all of the forage the stallion needs. Allowing at least a few hours of grazing each day will not only contribute to meeting his nutritional needs, it will also promote greater mental health.

Stallions that are expected to cover a significant number of mares will also require energy-dense feed rations, fed at levels up to a maximum 1% body weight per day (Table 2). The increase in grain should take place over 7 to 10 days to avoid digestive upsets, especially if the stallion was not receiving a feed concentrate prior to the breeding season. In addition, each meal of grain should be limited to less than 5 pounds. If your stallion needs more grain than this to maintain good body condition, split the daily ration into several, smaller meals. The addition of vegetable oil or use of a fat-added grain mix will provide additional calories, thereby reducing the reliance on calories from starch and sugar found in traditional grain mixes.

Unfortunately, we often tend to over-feed stallions. Feeding large amounts of grain have been associated with greater risk of digestive upset (diarrhea, colic, laminitis), high-spirited behavior, and obesity. Stallions should not be allowed to become obese. Grain rations should be reduced if the stallion appears to be gaining too much weight. The proper amount of feed is that which is necessary to maintain the stallion in a moderate body condition (condition score of 5 to 6).

## **Post Breeding Season**

Stallions finishing the breeding season in good condition can be tapered down to a maintenance, off-season diet by increasing the hay portion of the diet and decreasing the grain portion (Table 2). Again, use body condition to gauge if you are meeting the stallion’s energy requirements and adjust the diet accordingly.

If a stallion experienced significant weight loss during the breeding season, he should be fed to regain a body condition score of 5 or 6. Weight gains should be made gradually (0.5 to 1.0 pounds per day). Depending on the amount of weight loss, it may take 5 to 10 pounds of grain per day and several months to recoup weight lost.

### **Can Nutrition Enhance a Stallion’s Fertility?**

If the stallion is already receiving a properly balanced diet, adding extra feed or supplements to the diet will not enhance fertility. As many owners know, even the most fit, healthy, and properly fed stallions can have fertility problems.

Vitamin C and E supplements are occasionally used by some breeding farms to enhance the stallion’s reproductive performance or fertility. However, numerous studies have shown that giving large doses of vitamins

C or E is of no benefit for this purpose. If additional vitamins are desired, provide a balanced supplement that contains additional quantities of all vitamins, without excessive amounts of any, to maintaining optimum health and reproductive ability.

Extra nutrition may not make a stallion more fertile, but poor nutrition and improper body condition can result in heart attacks, poor libido and lower conception rates. Stallions should be fed a balanced diet and should not be allowed to become too thin or too fat.

### **Conclusions**

The most important aspect of stallion nutrition management is feeding a balanced diet and realizing that there are huge variations in energy intake required to maintain proper body condition from one stallion to another. Keeping the stallion in moderate body condition and providing a balanced ration of good quality hay and grain are the keys to successful stallion management.