

## Nutritional Needs of Breeding Nutritional Needs of Breeding Stallions

The stallion is the star of the breeding farm. Millions of dollars are spent nationwide each year on promoting and advertising stallions and their get to critical mare owners. Bookings are made, and fees are paid. In fact, mare owners often spend many hundreds of dollars in veterinary fees preparing mares for natural coverage or costly A.I. shipments.

Mare owners expect that when their mare arrives at the breeding farm or they telephone for an A.I. shipment, the stallion will be in top health, physically fit and well-fed to perform on demand. They naturally assume that stallions in good condition will produce better conception rates. On the other hand, seeing either overly thin or fat stallions will make mare owners question management practices, especially if their mare is barren after several breedings. Therefore, nutrition is a key component in a successful breeding program.

It's true that the feeding and daily management program can influence stallion breeding performance. But as many disappointed stallion owners know, even the most fit, healthy and properly fed stallions can have fertility problems. Enhanced fertility as a result of enhanced nutrition has not been established. The most important aspect of stallion nutrition management is feeding a balanced adult diet and realizing that there are huge variables in energy intake required to maintain proper body condition from one stallion to another.

Enhanced nutritional levels 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. A balanced adult ration of good-quality hay and grain fed to maintain optimum body condition are key to stallion nutrition during four stages of management: pre-breeding, breeding, post breeding and non-breeding.

### Pre-Breeding Nutrition

Stallion weight should be maintained at a level coming into pre-breeding so the horse can gain some weight without becoming fat before breeding. Unfortunately, it's more common to overfeed stallions than underfeed. Each year there are reports of older stallions that die from a heart attack during their first or second mating. Extra weight creates additional stress on big, stout horses. This can contribute to laminitis, which shortens their breeding careers.

Autopsies on heart attack victims have shown these horses have a ruptured aorta, a result of being overweight and not properly conditioned. Breeding stallions need a regular exercise program if possible. National Research Council Nutrient Requirements of Horses, 1989, gives nutrient minimum requirements for a mature stallion at maintenance and an additional 25% energy intake during breeding season. Other nutrient requirements also go up, since they are needed in proportion to energy intake.

### From Maintenance to Pre-Breeding Ration

The maintenance ration or post-breeding ration for most stallions consists of 1.5% of their bodyweight fed in hay, which usually provides most of the energy needs of the horse. However, for balanced maintenance requirements of vitamin A, vitamin E, selenium, copper and zinc, four to six pounds of grain concentrate fortified with these nutrients or supplements are usually needed and will provide more than ample energy.

When increasing to pre-breeding or breeding rations, energy increases about 25%. Grain intake depends upon the quality of the hay, but 0.5 to 0.75 pounds of a 12%-14% protein grain mixture per 100 pounds of bodyweight, fortified with vitamins, trace minerals and minerals should be adequate. A 1,200-lb. stallion would therefore consume about 18 pounds of hay and 6 to 9 pounds of grain concentrate. A key management factor is monitoring body condition.

When using a grain concentrate balanced for adult nutritional needs, don't make the mistake of diluting it with oats or corn for extra energy. Trace mineralized salt should also be provided, preferably in a loose form. If you have any doubts about calcium

(Ca) and phosphorus (P) in the diet, provide free choice mineral in a 2:1 Ca to P ratio with grass hay, or 1:1 Ca to P ratio with alfalfa hay.

### **Breeding Season Nutritional Stress**

Breeding season nutritional demands start for most stallions around February 15 with physical exertion of mating, imposed physical exercise for conditioning and psychological reactions to breeding. Each stallion has to be fed as an individual to maintain condition. Added fat feeds provide additional energy without increasing starch intake. The antioxidant benefits of vitamin E and selenium may be beneficial when horses are under stress.

### **Post Breeding & Non-Breeding Rations**

Thin stallions at the completion of the breeding season should gain weight gradually. If a stallion loses 200 pounds during the breeding season, he should be fed to gain 1/2 to 1 pound per day to get him back to a body condition score of 5-6. Weighing the horses or using a combination of body condition scoring and weight tape measurements may be useful.

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