



## **PROMOTING FERTILITY IN THE BREEDING STALLION**

The stallion is the pride of any stud farm. It is presumed to be more virile and fertile when it possesses an optimal body condition. Stallions who are either over or underweight cause concern for mare owners trying to manage a farm, particularly after a couple of failed breeding attempts. For this reason, nutrition is of optimal importance in the world of horse breeding. An excess of nutrients will not make a stallion more fertile. At the same time, a nutritional deficit puts the stallion at risk for various health problems including decreased libido and fertility.

Factors affecting a stallion's capacity to reproduce include photoperiod, the presence of mares, exercise, and outings. Not surprisingly, nutrition also plays a major role in fertility. To ensure a stallion obtains optimal nutrition, it will need to consume a variety of nutrients in sufficient quantities, and at ideal times. A stallion's caloric requirement for mating is relatively low, although factors in the horse's state of mind such as stress and agitation may increase his recommended daily intake. Stallions who mate either naturally or artificially several times a week will also have higher energy requirements than those who mate only a dozen or so times throughout the course of the mating season. During the breeding period, a stallion's caloric needs are 25% to 35% higher than those of a maintenance horse. It is therefore important to feed a mating stallion as though it were subject to light labour.

### **MONITORING BODY CONDITION**

As with all horses, a stallion's nutrition must be conducive to maintaining his ideal health and body condition. The secret to success lies in adapting your horse's ration to your visual and manual evaluation of his body condition. On a scale of 1 to 9, the optimal body condition score for a breeding stallion is between 5 and 6. A score of 1 describes an emaciated horse while an obese horse typically obtains a score of 9. Unfortunately, stallions often lose their appetite during the mating season, a phenomenon that frequently results in weight loss. To prevent this, the stud farmer will use a feed with a higher energy and fat content. Whenever possible, we recommend that the stallion have daily and extended access to quality pastures. If such a pasture is not available, the stallion should have the opportunity to exercise daily in a paddock. This will help the stallion maintain a healthy state of mind. Reproductive function is one of the first bodily systems to slow down with weight loss. To promote fertility, many stud farmers prefer that their stallions begin the mating season with a minimum body condition of 6 to 6.5. During the months leading up to the breeding season, the stallion's diet must allow it to attain this body condition without gaining too much excess weight.

### **PRIORITIZING ANTIOXIDANTS**

In addition to body condition, it is important to closely monitor and adjust a breeding stallion's protein, vitamin and mineral intake. Your horse's ration must also be evaluated and adapted according to his weight. When determining each horse's intake, a variety of factors must be taken into account. These include environmental temperatures and fodder quality, as well as the stallion's reproductive history and physical fitness. For the breeding stallion's fertility, several essential nutrients need to be considered. Of particular importance are the antioxidants selenium, vitamin A, vitamin E and vitamin C. Important for older breeding horses, these nutrients act as powerful antioxidants and free radical inhibitors. When ingested in sufficient quantities and adequate proportions, they also stimulate optimal immune function, with selenium and vitamin A proving to be particularly potent. Studies have successfully linked adequate vitamin C intake with increased sperm density and motility.

After extended storage, it is believed that hay and grains lose a significant, if not all of the nutrients they typically contain. While high-quality pastures are proven to be high in vitamins, they are extremely low in selenium; the soils of Eastern Canada are nearly devoid of this important nutrient. A complete vitamin and mineral supplement will help to remedy these deficiencies and balance out the stallion's ration, particularly if his diet is low in mash.

### **ADD SOURCES OF OMEGA-3's**

Ensuring a good balance between the essential fatty acids omega-6 and omega-3 also helps to improve fertility. A stallion's sperm quality and membranes greatly depend upon maintaining a very high concentration of lipids (fats). Researchers have found that adding the omega-3 fatty acid DHA to a horse's ration results in improved fluidity within the sperm membranes. Consequently, the semen is better able to tolerate the stress of cooling and freezing temperatures. In this way, a stallion who has demonstrated fertility problems can benefit from improved reproductive capacity by consuming a feed rich in balanced amino acids. A similar effect can be achieved by serving the horse the correct proportions of omega-3 rich foods such as flaxseed, flax oil and fish oil. Commercial supplements can provide horses with the same nutritional benefits.

### **WATER, THE FOUNDATION OF HEALTHY NUTRITION**

Fresh water is the most important nutrient of all, and it must absolutely remain accessible at all times. To promote the sufficient consumption and retention of water, it is recommended to serve a bit of salt (sodium chloride) in either blocks or granules. An insufficient consumption of water puts the horse at risk of dehydration which may increase the likelihood of impaction colic. Ambient temperatures, exercise and particularly the consumption of dry materials are all factors that may influence a horse's water consumption. It is important to realize that while feeds and grains possess high levels of dry material (85% to 92%), pastures are high in water and contain less than 30% dry material. For this reason, it is recommended to feed your stallion 30 to 60 g of salt as the animal transitions from a pasture to a hay-based diet. This will increase the stallion's water consumption and thereby decrease the risk of impaction colic. Continuously serving this amount of salt to the stallion should serve as an excellent form of prevention.

During the mating season, as you manage your stallion's diet, the most important detail to take note of is that the consumption of energy or calories will vary according to each horse's individual temperament and attitude. Combined with the horse's body condition, these two factors will determine the quantity of feed the animal will require each day. A stallion weighing 500 kg will need to consume at least three kilograms of high quality and well-balanced feed in order to meet his requirements of vitamin A, vitamin E, selenium, copper and zinc. If your stallion is able to maintain an adequate body condition on less than three kilograms of daily feed, it is preferable to provide him with a complete vitamin and mineral supplement to prevent any deficiency.

### **PURINA'S NUTRITION ADVICE**

Fibre represents a fundamental element of a stallion's ration. While a high-quality, clean and dust-free hay is suitable for meeting a stallion's needs, a nutritious, well-maintained and securely enclosed pasture is even better.

Part of the Evolution line, the complete Sport Elite feed is excellent for fulfilling your stallion's precise requirements. With its perfected high levels of quality fibers and plant-based oils, Sport Elite provides an energizing product, though its reduced starch content makes it suitable for most easily excitable

horses. Sport Elite also contains yeast cultures intended to improve digestibility, while added extruded flaxseed creates the ideal omega-6:3 ratio for optimal health. What's more, Sport Elite's superior antioxidant content works to improve reproductive function.

If, despite Sport Elite's reduced starch content, your stallion is still too excitable, Equilibrium Integri-T may be required. Possessing the lowest starch content on the market, this product must absolutely be served wet.

It is important to read the product label to determine how much feed to give your horse. If your stallion already has a good body condition and requires less than the recommended quantities, supplement 200 to 300 g of Equilizer for each kilogram below the recommended amount of horse feed. To promote water consumption, adding 30 g of granulated salt to the feed will give your stallion everything he needs to accomplish his many tasks.