

## Promoting conception in breeding horse Feeding the stallion



### Monitor body condition

- Recent studies confirm that body condition is crucial to the stud's capacity to reproduce.
- For the stallion, calorie requirements during siring are in themselves quite low; it is rather the horse's mental state, such as its level of agitation and nervousness that will increase its needs at this level. A stud that is called upon to sire several times a week, either naturally or artificially, will require more energy than one that is called upon a dozen times at the most during service season.
- The important thing is to target the ideal body condition score, which is between 5.5 and 6.5. Unfortunately, the stallion will frequently experience a loss of appetite during service season, often resulting in weight loss. To prevent this, horse breeders serve a high-fat, energy-rich feed to compensate for the smaller quantity of feed that the animal is inclined to consume during this period.
- It is also recommended that the stud have daily and extended access to a good-quality pasture, or at least, a daily outing of several hours in a large exercise pen, all of which is essential to its mental balance.

### Choose antioxidants

- In regards to stallion fertility, all nutrients must be taken into consideration because they promote cell function and integrity, while fostering immune response. Deficiencies or an improper nutritional balance could cause certain immune and health problems that diminish libido and fertility.
- In addition to being powerful antioxidants and barriers to free radicals, selenium and vitamins A, C and E play a crucial role, especially for older breeding horses. These nutrients, in particular vitamin E and selenium, facilitate optimum immune system activity.
- The vitamin A precursor, beta-carotene, is probably best known for its major effect on reproduction. Indeed, prolonged vitamin A deficiency is believed to lead to diminished libido in stallions.
- For the stallion in particular, the importance of vitamins C and E must be emphasized. Indeed, research measuring the effect of vitamins C and E on the quality of human and rabbit sperm has shown these vitamins to increase the density of spermatozoa, as well as a reduction in the quantity of abnormal spermatozoa. It also appears that certain cases of stallion infertility have been improved by administering additional vitamin C.

### Add sources of omega-3

- For the stud horse, sperm and sperm membrane quality depend largely on lipids (fats), which they contain in high concentrations. These fats control membrane function and affect its reactions in different situations, such as for example cooling and freezing.
- Sperm lipids are rich in polyunsaturated fatty acids, in particular two molecules, docosahexanoic acid (DHA), an Omega-3 fatty acid, and docosapentaenoic acid (DPA), an Omega-6 fatty acid. In stallion sperm, Omega-6 fatty acids are found in much higher quantities than Omega-3 fatty acids, and this distribution adversely affects cooling and freezing, which are essential steps in artificial insemination.

- In recent years, certain studies have demonstrated the advantages of increasing sperm DHA content in order to obtain a better ratio with DPA, which would increase sperm quality and fertility. Spermatozoa from horses that received DHA supplements were shown to swim faster and straighter, with improved motility after 48 hours.
- Researchers concluded that adding Omega-3 fatty acids (DHA) to horse rations results in improved sperm membrane fluidity, which in turn enables the semen to tolerate cooling and freezing better.
- The addition of ground flax seed or flax seed oil or fish oil may also be considered; however palatability problems could arise among more finicky animals. To be effective, these supplements must always be served in the right proportion.
- Aside from the obvious benefit of the correct balance of omega-6/omega-3 for sperm production, one should not overlook the impact of the proper ratio of these fatty acids on the immune system and overall general health, for the stud as well as the broodmare. Purina Athlete calorie supplement is a good source of omega-3, as are the complete feeds SuperFibra Integri-T, Equilibrium Trimax, Evolution Sport Elite, Omolene Sport 200 and Omolene Senior Action. With these products, your horse will maintain a healthy body condition or, if needed, gain weight.