## VETERINARY

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## THE IMPORTANCE OF FOOD DURING THE BREEDINGSEASON

When the long, dark days come to an end and the first warmth of the upcoming spring touches the earth, the world starts to be enchanted by the arrival of new life.

In order to get to that point, however, the stallion and the mare should have a comprehensive care and management regime, designed to provide the very best to both the stallion and the mare.

There are several factors that play a role when it comes to fertility. It is very important that both the stallion and the mare receive enough light and fresh air in their stables.

They need daily turnout in the fields, and access to fresh water and grass. In order to obtain the best results it is important that the breeding animals are in good condition; neither too fat nor too thin. A good nutritional balance is also essential to a successful reproduction programme. "How would he like to have his pellets in the morning?"

But which vitamins are essential for a mare, and how do they increase prevention of early embryonic mortality?

Vitamins play an important role in the body in terms of metabolism, bone and digestive health. Beta-carotene (provitamin A) is one of the vitamins that contributes to an earlier commencement of the heat cycle, better heat cycle of the mare, and also prevents early embryonic mortality. Beta carotene is found in carrots, grass and lucerne.

Minerals are also important to the mare. Calcium, phosphorus, zinc and organic selenium are a few.





Mares and stallions are most fertile between the ages of 3-7. For a mare to get in foal it is important that she receives at least 7.5 kg of good quality hay or haylage per day. In addition, a further 1.5 kg of horse nuts or horse mix should be fed. Of course, if the mare is kept on green fields with good grazing, then the mare's intake of hard feed must be adjusted accordingly. However, even if she is turned out with grazing both day and night, she will still need some extra vitamins and minerals. Of course, if the grass should lose its nutritional value, then enough hay should be supplemented to keep the mare in good body condition. This is important as horses which are neither too fat nor too thin have a greater chance of conceiving a foal! Under normal circumstances the grass begins to lose nutritional value in September.

Even though nowadays most breeding happens through artificial insemination, it remains important to understand that mares still need contact with stallions. Research has revealed that mares that are in regular contact with stallions have better health and are easier to get in foal. It should be enough for her to simply see and touch the stallion.

As soon as you have been successful in getting your mare in foal you must continue to take good care of her. Excercise and good grazing are very important! Mares can be worked in hand or under saddle until at least the 9th month of pregnancy. Even after this period it is still wise to keep the mare active so that she has an easier time delivering the foal.

In the last four months of pregnancy the mare is in need of more food, vitamins, minerals and protein. Some horse feed manufacturers provide special food for pregnant mares. "People believe that the stallion is just a sperm producing machine, They have little thought for the normal horse behaviour" Angus Mc Kinnon

This food usually contains some extra magnesium, calcium, zinc, phosphorus, copper, manganese and vitamins E and A. When the mare is close to foaling she will eat less hay in order to make room for the baby, but will be in need of twice as much nuts or horse mix.

After the foal is born the mare can continue to be fed normally until the 2nd and 3rd month, when the foal will be drinking the most. Make sure the mare is provided with enough food during this period! It is very important to keep the mare in good condition at all times! Her being too fat is not a good thing, as the foal will be drinking milk which is too rich and could let it grow too quickly, and perhaps develop skeletal problems. It is very important that the mare and foal receive as much exercise as possible at all times.

It is not only the mare that requires excellent care in order to end up with a healthy foal. The stallion also has his needs.

I once saw a humorous quote from Angus McKinnon in a magazine which said "people believe that the stallion is just a sperm producing machine; they have little thought for the normal horse behaviour".

Unfortunately Angus was exactly right with this statement. Most breeders keep their stallions locked up in their stables where they suffer a massive amount of stress.





It is not uncommon to find a stallion at stud being incredibly thin in the middle of the breeding season. It is also often the observed that such stallions have a very poor semen quality at the end of the breeding season.

How can you prevent this? How can you keep the semen in excellent condition? The answer is easy: keep your horse happy!

A stallion is first a horse, then a reproducer. A stallion also requires a lot of light, fresh air; at least two hours per day free time in a field or paddock and contact with other horses.

Give him space to act like a stallion and don't punish him when he calls to the mares or lifts his front leg. It is normal stallion behaviour and he needs to exhibit this in order to activate his hormones.

Breeding is an activity which requires a high energy intake. This is why a stallion requires 10-20% more food than a mare. Stallions also need to have at least 7.5 kg



of good quality hay per day and a minimum of 3 kg of horse nuts or mix. It is best to give a stallion the special pregnant mare feed as it contains all the extra vitamins and minerals he will need. If you should continue to have bad results with his semen quality, you should first look at the horse. Is he happy? Did he recently have anti-biotics (antibiotics are known of their bad influence on semen)? Perhaps he recently had a fever – some horses that have too many rugs can have an excessively high body temperature, resulting in a reduction in the semen quality.

If the stallion is happy and healthy, it may be necessary to change the semen processing method or extender. For the last few years there has been a new product on the market called Equi Pure.

EquiPure is a centrifugation system for the selection of fertile equine sperm which works by separating the sperm through a density gradient prior to freezing, insemination or semen sexing. EquiPure only eliminates the bad quality spermatazoa and therefore decreases the size of the insemination doses. It also removes reactive oxygen species, most bacteria and many viruses. This significantly increases sperm survival and therewith their fertilisation

In many stallions, especially sub-fertile individuals the fertility rates improves miraculously! Currently there are many different methods which may be used to increase the fertility of the stallion and the mare.

However, one should not forget that the most important component parts of breeding are the stallion and the mares themselves!