

Evaluating the Mare for Breeding

Are the mare's ovaries active and is she cycling? These are questions we answered ***last week***. If the mare went into *anestus* (a period of no heat signs) during the winter, we know to look for the first heat signs in late winter or early spring. We do not expect these first signs to be fertile. Only after the transitional (first) heat will the mare settle down to regular cycles we see every three weeks and signs of heat that last about five days. Now we can start thinking about breeding this mare!

There are a couple of things we need to know about the mare before contracting with the stallion owner for his services. The first and foremost question, ***"Is the mare open or pregnant?"*** Hopefully, if the mare was exposed to a stallion last year, she has been examined. If she has been running in a field with a stallion (including her yearling son) the mare should be examined. This examination for pregnancy can be performed rectally. This gives us the opportunity to evaluate the mare's uterus. If she is not pregnant, we can evaluate the size and condition of the organ. ***We can also examine the ovaries, quickly telling if they are active and if the mare has started cycling.*** Now that we know the mare is not pregnant and that her ovaries are active; with proper timing she will cooperate with the breeding.

We will now check for any signs of infection. If infection is present in the vagina or uterus, the best timed breeding will be unsuccessful. If semen is exposed to infection before conception - or if the embryo is exposed after conception - ***there will not be a pregnancy.*** If infection is present in the uterus, there may be some tell-tale signs on the vulva. As the infectious material (pus) builds it may overflow through the cervix and out the vagina, where it will accumulate on the lips of the vulva. This can be due to infection introduced during a previous breeding attempt, a difficult foaling, or from stool material drawn in through the lips of the vulva. ***Whatever the reason, if infection is present the sperm will be killed*** when it makes contact and will not complete its journey to meet the egg.

Infection may be present with less obvious signs. Signs of a low level infection will not be obvious on the lips of the vulva, or by examination of the floor of the vagina:

- There may be little evidence of pus anywhere in the mare's reproductive tract.
- Upon palpation, the uterus may be small and the walls free of thickening from inflammation.
- The sperm, based on large numbers, ***will be successful in making it to the egg and conception can occur.***
- Five days later the embryo will drop into the uterus to set up house.
- If the infection is deep in the tissue, ***the pregnancy may proceed as normal.***
- When the mare is checked with ultrasound at fourteen or more days, she could be pregnant (at this time the embryo is not attached to the lining of the uterus: it can actually be moved around with our hand).

But by the end of the fourth week, the embryo will begin merging with the wall of the uterus.

- **As the two grow together, the placenta of the embryo becomes part of the tissue. *If any infection is present, this is when it will destroy the embryo.***
- **If pregnancy was determined early with the use of ultrasound, but not confirmed later (after implantation), *this mare could spend the summer open!* Only when the days become longer the following spring will we have another chance to catch the mare in heat.**

Fortunately, examining the uterus for infection is an easy procedure. A quick look at a swab of the lining will tell us if inflammation is present. If it is, we send a swab to the laboratory to determine the cause of this inflammation. We also will know what antibiotic will be most successful in treating the infection. Treatment consists of uterine infusions with the appropriate antibiotic, which--in the healthy mare--is usually successful.

**Only with a uterus that is free of infection and inflammation
should we make a date with the stallion.**