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## Breeding Recommendations

### Getting Ready

Placing a mare under lights after Thanksgiving will stimulate her to cycle earlier in the upcoming year. There are two different methods for light stimulation for mares. The first method is to ensure the mare receives 16 hours of light per day. Natural daylight is extended using lighting in a stall or small paddock. The second method of lighting is called "pulse" lighting. The mare is exposed to light (usually in a stall situation) from 2 am to 4 am each night. Pulse lighting has the same effect without having to have the lights on as long.

The light the mare is exposed to must be bright enough to stimulate the pineal gland. An average 12x12 stall will require one to two 100 watt bulbs. To ensure there is enough light, you should be able to comfortably read the newspaper in every corner of the stall.

The mare must remain under lights until she is exposed to 16 hours of daylight or she begins to have regular follicular activity on her ovaries and normal heat cycles. If the mare is not exposed to adequate light for 4-5 days in a row, the entire process must be started again. Most mares under lights will begin cycling between the end of January and the end of February. Those mares that are not under lights will normally begin to have regular estrus cycles in mid April or early May.

### When to Check

Mares will go through a transitional period at the beginning of the breeding season. During the transition phase of their cycle, a mare may come into heat and remain in heat for an abnormally long period of time. Mares can also have extended periods of time between heat cycles during the transition period. Often a mare will not ovulate an egg (follicle) during the transition period. In order for a mare to conceive and maintain a pregnancy, she has to be under the effect of luteal tissue and the hormone progesterone that it produces. A mare during the transition period will not be producing progesterone.

Our practice's recommendation is to begin following your mare's heat cycles on a calendar. Once she comes into heat for 5-7 days then goes out for 2 weeks, she is likely out of the transition period. We often follow a mare for the first cycle out of transition to determine what size follicles she ovulates and how long her cycles last. By following one cycle, we increase our chances of pregnancy on the next cycle. If the mare has a good first cycle, we do have the option to breed her during that cycle.

### When to Breed

When using fresh cooled semen, we try to time insemination for just prior to ovulation. Most mares are then checked the next day to ensure that they ovulated and to look for any uterine inflammation secondary to the insemination. Reproductive work and insemination can be done on the farm. Due to the intensive management required for frozen semen, we will make arrangements to keep the mare close to our office during the time of insemination.

## **Alternative Methods**

Once a mare's ovaries are active, we can use synthetic progesterone (Regumate) to regulate her cycle. Once a mare is producing moderate sized ovarian follicles, we can place her on Regumate for two weeks. Mares will then come into heat within 5-7 days after discontinuing Regumate therapy. We use this method when breeding has to occur during a specific window of time. We can also use this method to try to breed mares earlier in the season to give an early foal the following spring.

## **Helpful Hints**

Contact the manager of the stallion early. You need to find out what their specific requirements are, what days the stallion is collected, and if there is any limit on semen shipments per cycle. If you have questions, we can look over the contract and make recommendations for management of your mare. We do not recommend culturing maiden mares unless the breeding farm requires it. Some breeding farms will also have specific requirements for vaccinations and testing that must be met before they will release shipments of semen.

The foals from maiden (have never had a foal) mares are generally smaller than subsequent foals. The mare size usually determines the foal's size at birth. That being said, it is always a good idea to go with a stallion that produces smaller foals as a rule for the first foal.

## **Quick Facts**

Mares are seasonally polyestrous. Their natural breeding season is between May/June and October. The gestation (pregnancy) period is roughly 11 months plus 5 days. We check mares for pregnancy 14-18 days after ovulation to be sure they are not carrying twins. After this initial period of time, it is more dangerous to the pregnancy to eliminate a twin. There are multiple ways to obtain pregnancy in mares: live cover, artificial insemination (this can be used fresh cooled or frozen semen), and embryo transfer.

These are some broad recommendations and guidelines; each case has specific needs, etc. Our veterinarians would be happy to assist you during this process and can answer any questions you may have!