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Assisted Reproductive Technologies in the Mare

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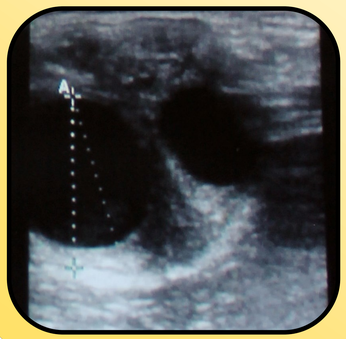
ASSISTIVE REPRODUCTIVE TECHNOLOGIES IN THE MARE

Teasing and Ultrasound

Students tease our mares to determine what stage of estrous cycle (heat) they are in. After teasing, if the mare appears to be in heat then an ultrasound will be conducted. The ultrasound helps to further identify where the mare is in her estrous cycle by mapping follicular development. The goal in follicular mapping is to identify and track the dominant follicle, which is the follicle that will go on to later ovulate.



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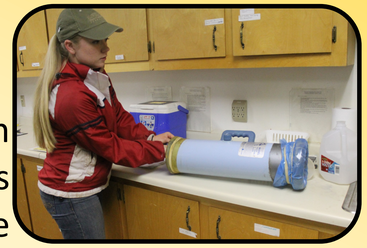
To inseminate the mare the students clean the mare's vulva, insert the insemination pipette through the mares vagina into the cervix, and dispense the dose of semen, making sure that no semen comes back out of the cervix.

Collection and Processing

The students use an artificial vagina and a phantom mare to collect semen from a stallion. The students then process the collected sperm by determining the volume, motility, and concentration, which is then used to decide the dosage of sperm to be given to the mare for insemination.



Foaling

As the mare approaches her due date, students begin to monitor her overnight. They are looking for signs of Stage 1 labor, which may include restlessness, pacing, pawing, biting or looking at her side, etc. When the mare's water breaks, students supervise the foaling and assist when necessary. Once the baby is on the ground students collect colostrum from the mare to test the antibody levels of the colostrum, and watch for the mare's placenta to pass and the foal to nurse. 12 hours post-nursing, students perform an IgG test to confirm passive transfer of immunoglobins to the foal.