

# ***Virginia Equine PLLC***

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## **Breeding Procedures for Artificial Insemination**

### **Methods of Breeding:**

Mares can be bred by:

- Live Cover
- Artificial insemination with raw or extended semen
- Artificial insemination with chilled semen
- Artificial insemination with frozen semen

### **Conception Rates:**

The conception rate for chilled semen is less than that for live cover or artificial insemination on location. The conception rate for frozen semen is less than that of chilled semen.

### **Viability of Semen:**

Semen from a natural cover is viable for approximately forty-eight hours. Chilled semen is viable for forty-eight hours, which allows for twenty-four hours to ship and twenty-four hours viability within the mare. Frozen semen is viable for at most twelve hours after insemination.

### **Frequency of Breeding:**

A mare can be bred once every other day until she goes out of heat with live cover. Shipped semen requires very close timing between ovulation and the insemination, which necessitates an excellent teasing and palpation regimen. Communication and cooperation between the semen shipper, breeder, and the receiving veterinarian is crucial. Therefore, the best success with the least expense to the mare owner is to have the mare in a location where she can be teased and readily accessible to a veterinarian for palpation when indicated. There are many factors which dictate the number of shipments needed on each breeding cycle, including the length of the mare's cycle and the viability of the semen when it arrives.

## **Procedure for Breeding:**

If the mare demonstrates “heat” at home, keep a record of her cycle: normally it will be one week in and two weeks out for one cycle every twenty-one days. Ideally, move the mare to Virginia Equine when she is due to come into heat for teasing, palpation and insemination.

If the mare does not demonstrate “heat “ she can be examined at home, given an injection to bring her into “ heat, “ and then moved to Virginia Equine.

Prior to bringing the mare to the clinic, a contract with the stallion owner must be completed and all the requirements fulfilled (deposits, cultures, etc.). The specific procedures required by the stallion owner for ordering semen must be established, as does a contact person. As the heat cycle progresses and the time for insemination approaches, timing often becomes critical and everything must be in place for quick action as to not miss the optimum moment for insemination. It should be noted that obtaining semen over a weekend or holiday often poses particular difficulties that need careful planning and coordination.

If frozen semen is to be used, the straws need to be sent to Virginia Equine where they can be maintained frozen in liquid nitrogen until the mare is ready to ovulate. Mares bred with frozen semen need to be monitored very carefully to inseminate as closely to ovulation as possible, which may require multiple palpations each day.

## **Post Breeding Schedule:**

The mare can return home after a veterinarian has detected an ovulation and should be checked by ultrasound at fourteen days post-ovulation. If the mare is determined to be pregnant, she should be re-checked by ultrasound at twenty-one days and forty-five days post-ovulation. If the mare is found to be not in foal at any point, she should return for additional breeding or diagnostic work-up.