Management of Mares for Frozen Semen Insemination

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Prior to Insemination

- Verify that the mare is a suitable candidate for AI with frozen semen by performing a routine reproductive exam that may include culture, cytology and biopsy when indicated. Data suggests that aged (> 15 years) or repeatedly barren mares may have a reduced pregnancy rate and are not the best candidates for AI with frozen semen.
- Once the mare comes into estrus, palpate and/or scan daily to monitor follicular activity.
- Upon detection of a large (35-40 mm) pre-ovulatory follicle, administer hCG or deslorelin.

If only one dose of semen is available for insemination.

1. Examine the mare via ultrasound at 6 hour intervals starting 12-24 hours after hCG or deslorelin administration.
2. Inseminate the single dose of frozen semen as soon as ovulation is detected.

It is extremely important that mares being inseminated post-ovulation are inseminated within 6 hours of ovulation. A significant reduction in fertility will occur if mares are inseminated more than 6 hours post ovulation.

If more than one dose of semen is available during a given heat cycle.

1. Continue to examine the mare via ultrasound once daily and inseminate a single dose of frozen semen approximately 24 hours after hCG or deslorelin administration.
2. Examine the mare approximately 16 hours after insemination and inseminate a second dose of frozen semen even if the mare has already ovulated.
3. Examine the mare the following day to confirm ovulation. Insemination of a third dose may be required if the mare has not still ovulated.

Suggested schedule for insemination of mares when more than one dose is available:

- Daily examinations during estrus (any time)
- Day 0  Day of 35 to 40 mm follicle detection
  Administer hCG or deslorelin at approximately 4:00 PM
- Day 1  Inseminate a single dose of frozen semen at 4:00 PM
  (24 hrs post-injection).
- Day 2  Inseminate a second dose of frozen semen at 8:00 AM
  (40 hours post-injection).
- Day 3  Examine to confirm ovulation & inseminate a third dose if
  the mare has not ovulated at 8:00 AM

A general goal for mares inseminated with frozen semen is to inseminate within 12 hours prior to and/or within 6 hours after ovulation. This protocol ensures that viable sperm are in the oviduct during that interval for any mare ovulating within a period of 18 to 52 hours following administration of hCG or deslorelin.