

Deerpath Breeding and Development

Reproduction Strategy

At Deerpath Breeding and Development our strategy is to employ an intensive program that ensures that every mare is bred at the best opportunity during the breeding season, and if she does not become pregnant, to return her as quickly as possible to another breeding. We also work with mare owners to better understand their goals and guide them through the best options for their mare.

Cost Estimates

The estimated costs at Deerpath per estrous cycle plus one pregnancy scan, and not including board or stud fees can range from \$400 to \$800/estrous cycle. This large range is due to costs associated with extra ultrasound examinations; post breeding treatments, management of possible twins and uterine infection treatment and possible hormone testing.

Ultimately mare owners have to decide how important it is for them to have their mare pregnant and healthy, and how much they can spend to get her pregnant.

Lighting Program

We routinely start barren or maiden mares under lights in late November. This starts them cycling with a *Transitional cycle* approximately 60 days later, and insures that they are on their second cycle of the year around February. It is worth starting a lighting program up until February, after that the normal lengthening of the day will do just fine. If you are planning to breed your mare later on in the season you may start your lighting program in late December.

Exams to identify a mares cycle

Mares are teased, every day through the breeding season. Our veterinarians examine mares if they show estrus (heat) or if they have not shown estrus for at least 3 weeks. Some mares do not show estrus well, so they must be examined frequently to identify when they will return into estrus and how their follicular growth is. Mare exams include manual palpation, speculum, and ultrasound exams.

Transitional Estrous Cycle

Most mares do not cycle during the winter, and normally have their first ovulation in the first week of April. This first estrous cycle is called a Transitional cycle, because it is often abnormally long. Barren or maiden mares bred on transitional cycles can become pregnant as if bred on normal cycles, but these mares are more likely to lose their pregnancy than foaling mares. Therefore, we recommend that mares be bred on the next cycle after the transitional. In order to minimize loss of time between cycles, Prostaglandin (Pg) can be given to return a mare into estrus 1 week earlier.

Ultrasound Exams

Ultrasound examinations of the uterus and ovaries are the best way to determine when a mare should be bred. These exams evaluate the ovaries, check for uterine edema, as well as check for any uterine cysts.

Post breeding ultrasounds are important; they see if the mare has ovulated within the time of breeding and identify a mare that may have a uterine clearance problem. The increased information that is obtained during an ultrasound exam allows us to do fewer exams and improves a normally healthy mares chance of becoming pregnant.

Induction of Ovulation

To improve the accuracy of the breeding, it is routine to use either hCG (human Chorionic Gonadotropin) or Ovuplant (GnRH) to induce ovulation. Mares can only receive two doses of hCG per breeding season as they form antibodies to it following the injections, making it less effective. We recommend Ovuplant to induce ovulation.

This is a more expensive way of inducing ovulation but we find it better for mares with not so strong follicle growth and mares that are being bred late in the season.

Pre-Breeding Cultures and Cytology

Prior to breeding, a culture swab is recommended especially for natural covers. *Uterine cultures* identify the presence of an infection and a *uterine cytology* identifies the presence of uterine inflammation. Identifying the presence of a potential problem, and correcting it, provides a good chance of getting your mare pregnant.

Uterine infections can be a problem; they reduce a mare's chance of getting pregnant, cause abortion and infect the fetus. At Deerpath uterine cytology is highly recommended.

Post-Breeding Examination

Sometimes mares react strongly to stallion semen causing a uterine clearance problem. Uterine fluid can pool in the uterus causing an adverse environment for a pregnancy and may lead to infection. Diagnosis is accomplished with an ultrasound exam following breeding, at the same time the mare is being checked for ovulation. Mild problems require oxytocin. Severe cases require uterine flushes. Mares not treated are less likely to become pregnant or risk losing their pregnancy later.

Uterine Flushes and infusions (Pre and Post Breeding)

We recommend on some mares on their second or third services (breedings) of the year to be flushed 24 hours after breeding. This will ensure a clean uterus for the embryo to survive in. Uterine flushes get rid of fluid and debris caused by the normal inflammatory reaction of the uterus to semen.

Post breeding uterine infusions are used to inhibit the growth of bacteria in the uterus caused by poor reproductive conformation or bacteria picked up in live cover breeding.

16 Day Pregnancy Exam

The first post breeding ultrasound exam occurs at 16 days after the last breeding date, this helps identify mares not pregnant so as to return them to another breeding without losing time. Mares can be brought back into Estrus 1 week early with the use of Prostaglandin (PG)

This exam also identifies twins and allows them to be crushed prior to fixation. Twin reduction greatly increases the chance of your mare retaining her pregnancy. This exam may also identify the signs of excessive uterine fluid and edema.

30 and 45-Day Pregnancy Exam

We recommend an ultrasound exam at 30 days post breeding and manual palpation at 45 days and after; this determines if the mare has lost her pregnancy and if time permits then to return her to another breeding. These exams also check how earlier twin intervention has progressed.

Deerpath Breeding and Development along with our veterinarians would like to continue to offer state of the art mare and stallion management. It is our goal to breed your mare at the best possible time during the season with the care you expect.

**Veterinarian Services provided by Main Street Animal Hospital, Cambridge, On
Dr. B Hancey and Dr. Steve Lee**