

## **Frozen Semen AI**

Mares must be admitted to the clinic for insemination and the monitoring leading up to insemination. Once the semen has been thawed the sperm must be kept at a constant 37°C and inseminated immediately. The sperm only live for about 6 hours after thawing so the timing has to be very precisely coordinated with ovulation. This is done by closely monitoring the mare at increasingly frequent intervals, as ovulation approaches. Around the time of ovulation, examinations will be made every 2-4 hours. As soon as ovulation is identified, insemination is performed, immediately, often this is in the early hours of the morning. The semen is thawed in a water bath at 37°C and once thawed, which takes about 30 seconds, immediately inseminated using a pre-warmed catheter. To further increase the success rates we use deep uterine insemination, depositing the thawed sperm right next to the end of the fallopian tube, which contains the unfertilised "egg". To be even more precise, an endoscope can be used to directly visualise the end of the fallopian tube and deposit the sperm directly onto it. This method can reduce the quantity of sperm required to achieve acceptable pregnancy rates, which maybe of advantage if the stallion concerned is dead and semen supplies limited. This endoscopic method is more complicated and expensive than deep uterine insemination.

Thawed sperm are more fragile than fresh or chilled sperm and therefore, not suitable for use in mares with a hostile uterine environment, such as mares at foal heat or older mares or mares prone to uterine infections.

Because of the expense and work involved in using frozen semen it is not recommended to use this technique in a maiden mare, it is advisable to ensure her fertility using natural service or chilled semen AI before embarking on a frozen semen insemination.