

Friesians and the Shipped Semen Game

This article originally appeared in the Spring 1999 issue of The Friesian and has been updated. It was written by Daniel Harrison, DVM, who is in practice at the Bend Equine Medical Center at Bend, Oregon. Dr Harrison has a special interest in equine reproduction and has a number of Friesian mares in his practice.

If you or your veterinarian are new to breeding Friesians with transported semen you may be able to save time, money and frustration by reviewing this article together.

Breeding mares with shipped semen has many advantages. However breeding Friesians with transported semen presents some difficult challenges to the both the mare owner and the veterinarian.

First, from a physical perspective, Friesian mares can be a challenge to palpate due to their large size. The ovaries can be hard to reach and thoroughly palpate. This makes it difficult to detect subtle change in follicle tone and size, two parameters necessary to predict ovulation accurately. Often times, a practitioner must resort to the use of ultrasound to get an accurate measurement of follicle size and its rate of development. This, in turn, drives up the cost of the overall process but is necessary in order to determine when to send for semen in a timely fashion.

Second, from a physiological perspective, Friesians mares sometimes have exceptionally long heat periods when compared to other breeds. It may take much longer than the usual 5 to 7 days to bring a follicle up to an ovulatory state, sometimes taking 10 to 12 days. The follicle usually doesn't continue to grow larger during this time, but seems to just hang there once it reaches 50 to 60mm in size. The practitioner is urged to be patient with these mares, as the tendency is to order semen too early, which serves to drive up costs as well. These mares also may be unresponsive to the continued use of HCG (an ovulation inducing drug) in spite of increasing the dose and frequency of administration. We have found the use of Deslorelin (Ovuplant®) to be very helpful in inducing Friesian mares to ovulate in a more predictable fashion, which greatly facilitates the timing of insemination.

Third, from a psychological perspective, many Friesian mares that don't have a "teaser" stallion available on the premises do not show typical signs of estrus during their heat periods, making detection of the onset of estrus impossible for the casual observer. This necessitates hormone manipulation of their cycles in order to generate a starting point to their heat cycles. Repeated rectal palpations and ultrasound exams are necessary once

the mare comes in heat. The average mare owner does not have access to a "teaser" stallion, which helps to both induce the onset of estrus and also helps stimulate a more timely ovulation. Geldings do not seem to elicit the type of estrus behavior that is helpful to the mare, making the veterinarian's job more challenging.

Fourth, when frozen semen is selected, the timing of ovulation becomes extremely critical. The mare must be inseminated within 4 to 6 hours before and/or after ovulation. Given the large size of the average Friesian mare's uterus, the semen must be deposited far up the same uterine horn that has the ovulating ovary. Sometimes the number of frozen straws may need to be increased in some mares in order to insure adequate insemination volume. We have found that some of these mares will pool uterine fluid 24 hours after breeding with frozen semen and need a post-breeding uterine leavage to help evacuate the fluid.

Fifth, adequate records must be kept! The process of quality record keeping cannot be too heavily emphasized. It allows the veterinarian and mare owner to not only track heat cycles and record data, but will form a picture of the reproductive physiological behavior of each mare from year to year. Familiarity with the mare is very important because ovulation patterns tend to be repeated from one cycle to another and from one season to another. Trends and tendencies can be learned about individual mares and the records also present a legal medical record should a mare be sold or questions of liability arise.

It is recommended then, that the Friesian mare owner carefully select a veterinarian with extensive experience in the field of transported semen and equine reproductive physiology. We have found it best that the mare be sent to a clinic such as ours, complete with a teaser stallion, in-house laboratory, palpating stocks, and qualified personnel available to assist in the artificial insemination process. Many of the above mentioned variables can be controlled when this is done, and although success can never be guaranteed in dealing with such a complex biological process, the chances of success will certainly be maximized.