

## Vet's Corner: Best Timing of Breeding

Prohibitive fuel prices have affected all businesses that transport their services to the farm, such as A.I. service and veterinarians. A. I. services are visiting the farm on a once daily schedule more commonly, as the number of technicians declines and their practice areas expand.

Several studies have shown no significant difference in preg rate between once a day and twice a day service. However this does not mean that cows only have to be observed for heat once a day.

Let's go back to some of the basics of the bovine estrus cycle:

On average, the egg is fertile for only 8 to 12 hours after ovulation.

Egg fertility starts around 27 hours after the cow begins standing and 3 to 6 hours after she stops standing.

Capacitation of sperm cells takes 6 hours for the sperm to become fertile after semen is placed in the uterus.

Poor semen handling can shorten fertile semen life from 20 hours to 10 hours.

For once a day service to be successful, the dairyman must assist the technician with accurate heat detection in the morning and evening to help pinpoint the 8-12 hour period when the egg is fertile. If the cow is bred at the very beginning of heat, 27 hours could go by and sperm life will be over before ovulation and the start of fertile egg life. **The biggest problems occur when cows are bred early and semen life is shortened by poor semen handling and placement.**

To extend the time when semen is fertile, be very particular about how semen is thawed. It is tricky to thaw 2 straws in the same water bath, because they tend to stick together and then the semen doesn't thaw at the same rate. For the same reason, it helps to use a 95F water bath instead of pocket thaw to give a more uniform thaw.

Don't rush, but strive to have semen thawed and implanted in the cow in 10 minutes. If it takes longer than 10 minutes on a regular basis, restrain the cow better or closer to the water bath or thaw fewer straws at a time.

Kent E Henderson, DVM  
Northwest Veterinary Associates, Inc.