

Embryo Transfer Service



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Embryo Transfer Team



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Services the Team Provides

- Superovulation and Embryo recovery programs
- ♦ Embryo freezing
- ◊ Fresh Transfers
- ♦ Embryo export and storage facilities
- ♦ Repeat breeder transfers.



Embryo Recovery

- With the aid of superovulation drugs a donor cow can produce an average of 5-6 embryos when flushed 7 days after insemination.
- The embryos can be:
 - 1. Transferred direct into heat synchronized recipients.
 - 2. Frozen for transfer at a later date or for sale.
- Close liaison between you, your vet and The Vale Veterinary Group Team throughout the program will produce the best results.

Embryo Flushing

Reasons for Flushing

- To increase the number of offspring from a cow of a high genetic potential,
- To speed up the rate of genetic improvement within a herd,
- Offspring can be produced from cows that are unable to maintain a pregnancy themselves,
- Occasionally repeat breeder cows conceive and maintain a pregnancy after undergoing a superovulated heat.

Repeat Breeder Embryos

We all have cows that have had more than 4 unsuccessful services and despite many different hormone treatments, still fail to conceive.

There are an increasing number of valuable cows within the national herd which fall into this group.

In the early stages of pregnancy an embryo releases a chemical message which informs the cow she is pregnant. Hopefully, by implanting a seven day old embryo into a cow which was also served seven days earlier, we produce, albeit only for a short time, two embryos thereby doubling the amount of chemical message the cow receives.

If successful, the cow tends to hold to the service embryo rather than the implanted embryo. Only very occasionally will she be carrying mixed twins.

The embryos we are using at the moment are Belgian Blue x Holstein, because they are cheap to buy/produce.

On the day of implantation recipients are scanned to check for ovarian problems and to see into which uterine horn the embryo is to be implanted. An epidural anaesthetic is administered to reduce the amount of straining by the cow whilst the embryo is being implanted.

Selection of the Donor

Selection of the donor is a very large step towards a successful embryo flush.

- **Genetic Selection**. This selection is generally made by you, the farmer. However it is worth noting that very occasionally some genetic families (sisters and daughters) will not flush despite multiple attempts.
- Age of donor. Mature cows are preferable i.e., in their 2^{nd} to 4^{th} lactation. Older cows yield fewer, poorer quality embryos. First lactation cows are generally under too much stress to flush well.
- **Nutrition** of the donor is extremely important. Adequate levels of nutrients, minerals and vitamins are vital for good results. Mineral boluses should be administered if the farm has a history of deficiencies. **All** donor cows are supplemented with minerals prior to a flushing program.
- **Disease** status of cows can influence flushing success. Donor cows should be free from any disease for a period of 4-6 weeks prior to the flush. Vaccination programs employed on the farm should also be fully up to date prior to flushing.

