Topic Topic Technical Economic

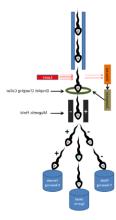


Use of sexed semen to increase the number of heifer calves

Background

Sexed semen is an innovative technology that allows the predetermination of calf sex with about 90% reliability. However, uptake has been hindered by lower conception rates, higher costs and limited availability of both semen and sires. Greater utilisation of sexed semen can help improve the efficacy of both dairy and beef production, increase farm profitability, and help improve the environmental sustainability of cattle production.

How does the strategy work?



(1) Semen is sorted into X and Y chromosomes



(2) Identify bulls that are available sexed that are suited to the herd's breeding objectives. Use sexed semen from a large team of bulls (≥5) in equal proportions



(4) AI with sexed semen 14 – 20 hrs after oestrus observed



- (3) Select appropriate cows and heifers for AI
- > 60 days calved
- Healthy, good body condition
- Fertile
- High genetic merit

Positive features

For dairy and beef herds, sexed semen can be used to breed female replacements with strong maternal traits and males with strong terminal traits, increasing the value of dairy-beef bull calves.

In addition, it can help to;

- Improve welfare, lowers the risk of difficult calving (-20%)
- Reduce the number of lower value bull calves and low genetic merit heifers
- Increase the rate of breeding replacement heifers for herd expansion or improvement
- Help minimise biosecurity risk as it reduces the need to buy in replacement dams

Be careful, especially on these points

- Accurate heat detection is essential
- Consider using **fixed time AI** to ensure accurate timing of AI
- Consult with your vet and AI technician on synchronisation programmes and sexed semen AI protocols

Specific advice

Successful use of sexed semen is highly dependant on straw preparation

- Organise sexed straws into one goblet in the tank and minimize the frequency that the goblet is lifted.
- Check that the temperature in the thawing unit is 35 to 37 °C. Change water in the thawing unit daily and clean regularly.
- Thaw a maximum of two sexed semen straws at a time for 45s.
- Load straws into pre-warmed AI guns and keep AI guns warm after loading
- Ensure that inseminations are promptly completed (< 5 mins) after loading

Equipment involved? Investment?



Sexed dairy semen €38



Conventional Conventional dairy semen €18



beef semen €10

Assessment of method



Quote of the farmer:

"Using sexed semen allowed us to increase the number of female replacements born"





