

Culling policies and Johne's disease

Lawrence Gavey, Johne's disease Programme Manager

This month we are going to look at how you might factor in Johne's disease risks in deciding your culling policy for the end of the year.

Studies consistently show that the reasons that farmers cite for culling dairy cows are infertility or reproduction (approximately 25% of culls), surplus numbers (15%), low production and old age (15%), mastitis (12%) and other conditions (including lameness, temperament and other diseases).

In deciding how many cows to cull, you will want to take into account the availability and cost of replacement heifers, whether you have bred your own or intend buying them in, the likely productive value of your cows for the next lactation, and the market value of cull cows.



Studies consistently show that the reasons that farmers cite for culling dairy cows are infertility or reproduction (approximately 25% of culls), surplus numbers (15%), low production and old age (15%), mastitis (12%) and other conditions (including lameness, temperament and other diseases).

IRISH JOHNE'S CONTROL PROGRAMME

Animal Health Ireland, 2-5 The Archways, Carrick-on-Shannon, Co. Leitrim, N41 WN27



In deciding which cows to cull, you will want to consider their fertility (indicated by calving date), production data, age and parity, udder health (SCC), relative value of the next calves, temperament, and other diseases. ICBF and other farm consultants can help you to evaluate your cows across these multiple factors.

Johne's disease risk is one of the disease conditions to consider in this evaluation, but you may need veterinary advice to rank your cows for this risk and integrate that risk with the considerations of fertility, production, etc. This will largely depend on the importance and strategy that you give to Johne's disease control, which in turn are dependent on whether your herd is infected, and if so to what impact.

You can use testing and herd health histories to identify cows of high-risk for Johne's disease. The following lists indicators of Johne's risk, in generally descending order of risk:

- ✘ Clinical cases (signs of severe wasting in condition and diarrhoea, bottle-jaw, eventual death, usually bright and alert until the terminal stages).
- ✘ Positive result to culture or PCR test on a dung sample.
- ✘ Positive or inconclusive result to ELISA test on a blood or milk sample – although ELISA 'scores' (S/P values) are reported, they are a measure of the immune response and not necessarily proportional to risk of infection or shedding. They can fluctuate, and may vary between milk and blood samples, testing laboratories, and test kits, so should be interpreted with caution.
- ✘ Calves, especially the most recent calf from high-risk cows - earlier calves are lower risk as infection in the dam will not have progressed as far towards spreading to the calf.
- ✘ Animals calved and raised in same calf cohort as high-risk animals.
- ✘ Introduced animals from a known-infected source herd.
- ✘ Introduced animals from same source herd as animals identified as high-risk.
- ✘ Introduced animals from source herds of unknown status and likely uncontrolled risk management.

Prioritise these listed high-risk animals

Preferentially cull high-risk adults, but also take into account animals' production figures, age conformation, behaviour, other diseases, farm priorities. If you cannot cull some or all of them, separate them from the rest of the herd if practicable, breed them to a beef bull or semen, and as a high priority calve them in isolation from the rest of the herd so that calves from lower-risk cows are not exposed to a calving environment that has been contaminated by dung from high-risk cows.

The testing and risk assessment tools of the Irish Johne's Control Programme can help clarify these factors, at little cost due to the funding supports for the activities.

For further information on integrating Johne's disease risk into your culling decisions, speak to your veterinary practitioner.

To join the Johne's programme to take advantage of the funded testing and risk assessments, contact animal Health Ireland (www.animalhealthireland.ie or tel. 071 967 1928).

IRISH JOHNE'S CONTROL PROGRAMME

Animal Health Ireland, 2-5 The Archways, Carrick-on-Shannon, Co. Leitrim, N41 WN27

