

1 JOHNE'S DISEASE MANAGEMENT

Test-and-cull high risk cattle

OBJECTIVE:

To eliminate a major source of MAP before calving and reduce losses from clinical JD.

BEST PRACTICE



- Cull any cows with early signs of JD ASAP. (Confirm JD by test)
- Screen all cows every year for JD by laboratory test before calving
- Cull all test-positive cows by end-of-season and before calving
- Cull current season's calf from clinical cases or high-positive cows

ALTERNATIVE OPTIONS



- Mark all high-positive cows and cull by end of season
- Mark remaining positive cows and calve separated from main herd
- Bobby calves from high-risk or test-positive cows
- Do not feed colostrum or milk from high-risk cows

HIGH-RISK BEHAVIOURS



- Retaining cows with clinical JD – there is no cure and they spread MAP
- Calving test-positive cows in the main herd
- Feeding colostrum and feeding milk from untested cows
- Rearing calves from clinical JD or test-positive cows.

NOTES

1 JOHNE'S DISEASE RISK INFORMATION

Test-and-cull high risk cattle

Johne's Disease (JD) eradication is not practical but it is possible to reduce the level and impact of JD. The impact of test-and-cull alone as a control is limited – use it as a management tool with other interventions. Identify an cow with suspected JD and cull ASAP. Her calf is probably infected as well.

Test-and-cull to lower infection level and avoid losses

Overall, JD tests have poor sensitivity and do not identify all infected animals. However, test performance is correlated with stage of infection: very few early stage JD heifers and cows with intermittent or no MAP shedding will give a positive test result. As MAP shedding increases and clinical JD develops, test performance improves dramatically and can identify up to 80-90% of advanced JD cows. Regular herd screening allows:

- Culling of most cows before they progress to clinical disease
- Reduction of production losses and ineffective treatment costs (a JDRC study suggests JD-positive cows produce 15% less milk than JD-negative cows)
- Reduction of environmental contamination
- Protection of young stock from high exposure to MAP.

Herd-test milk sample screening option

Milk samples offer a convenient option for whole herd testing with minimal fuss. To reduce test costs, an intermediate pooling step is used in the lab. By testing annually in summer, high risk cows can be removed before calving to reduce exposure. Results are ranked to focus on strongly positive cows that present the highest risk of shedding and clinical JD.

Cows with a high-positive test result:

- Confirmation blood test usually not required
- Cull all high-positive cows to eliminate super-shedders
- If unable to cull, manage as highly contagious
- Consider culling current season calf or tag as high-risk JD. (Up to 10-40% of calves from dams with advanced infection or clinical JD are infected in the uterus.)

Other test positive cows (weaker test result):

- Cull or confirm JD status first on a blood test
- Cull if possible or prioritise on culling list
- Manage separately at calving to reduce risks. Bobby the calf.

Recognise clinical signs of Johne's Disease early

- Clinical JD is often preceded by a drop in milk production
- Stress may trigger clinical disease, especially at calving (remove affected cows and cull ASAP to protect calves. Discard all colostrum and milk)
- Weight loss or unable to gain weight despite good appetite
- Persistent diarrhoea – does not respond to treatment
- Bottle jaw – fluid accumulates under jaw due to protein loss
- Muscle wasting.

Cattle with clinical JD are not fit for the food chain!

Blood sampling and JD testing

- It is good practice to test suspected JD cows before culling to confirm diagnosis and monitor herd status.
- In herds with very high MAP challenge, clinical JD may be seen in 2-year-old heifers. Consider test-and-cull of heifers before calving as well to break the cycle and reduce calf exposure to MAP.

