

Don't let stock fall through the cracks...

What are the signs of Johne's disease (JD)?

- Overt signs of early stage clinical disease may be subtle, with mild weight loss and/or reduced milk yield.
- Infected animals may lose weight or be unable to gain weight despite good appetite.
- More severe disease will often manifest with profuse and chronic, watery diarrhoea which does not respond to treatment and which may be intermittent. This is less common in sheep and goats. As the disease progresses, animals become progressively more emaciated and dehydrated.
- Periods of remission may be seen in which affected animals appear to improve in condition.

Does JD affect productivity?

Absolutely. In addition to animal health and welfare concerns, Johne's disease is a production limiting disease which impacts upon growth, milk yield and fertility and imposes capital losses due to premature culling or death.

On top of these production losses, the presence of Johne's disease on an affected property causes significant indirect costs through constraints on management and restrictions on stock movements.

Many studies have found MAP infection to be associated with a significant reduction in milk production in dairy cows. Our experience suggests that daily milk solids production is 4% less for infected cows, 6% less for moderately diseased cows and 12% heavily diseased cows shedding large numbers of bacteria, compared with uninfected cows.

How will I know if JD exists in stock?

Although visible indicators of late stage disease typically include diarrhoea and progressive weight loss despite good appetite, these physical signs are also associated with a number of other conditions and should not be considered uniquely diagnostic for Johne's. In addition, animals exhibiting physical symptoms arising from Johne's disease will only

be the tip of the iceberg and for every clinically affected animal, a minimum of 25 other animals are likely to be infected but asymptomatic.

The only way to know for sure is through laboratory testing. Cull animals should have their Johne's status confirmed.

How does JD spread between different farms?

Most commonly through the purchase and introduction of infected stock. Johne's disease is an infection of the intestine and the single greatest risk factor for disease transmission is contact with faecal material from infectious animals; anywhere that may be contaminated by faecal material from unknown

animals such as stock trucks or shared water schemes should be considered potentially contaminated with MAP. Airborne transmission is not generally considered to be a risk factor for MAP although the bacteria may become aerosolised if effluent is sprayed onto nearby paddocks.

Does JD present the same in all species?

While cattle, goats, and sheep generally develop clinical disease at 2 to 5 years of age, deer are notable in that clinical disease is seen in yearlings and sometimes weaner animals as young as 4 to 5 months old. The progression from mild, subclinical infection to overt disease

often follows some form of physiological stressor such as calving, lactation or weaning. Vaccination may



It's official - Johne's disease is costing farmers money

Our latest published study confirms that sub-clinical Johne's disease in the herd is costing farmers money.

Conducted in collaboration with Dr Andrew Bates at the Vetlife New Zealand Centre for Dairy Excellence, our latest study charts the economic impact of sub-clinical infection with *Mycobacterium*

paratuberculosis (MAP) on milk production in a New Zealand dairy herd. Using DRL's testing methods to confirm the fecal shedding characteristics of ELISA positive cows, this study confirms that even sub-clinical JD has a significant impact on milk production.

See our latest research article at www.drl.net.nz

Bates et al. BMC Veterinary Research (2018) 14:93
https://doi.org/10.1186/s12917-018-1421-4

BMC Veterinary Research

RESEARCH ARTICLE

Open Access

The effect of sub-clinical infection with *Mycobacterium avium* subsp. *paratuberculosis* on milk production in a New Zealand dairy herd

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1

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