

Controlling Johne's Disease On Your Farm



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Johne's disease is a chronic, incurable infection of the intestinal tract caused by *Mycobacterium avium* ss. *paratuberculosis* (also known as MAP). This pathogen is resistant to extreme environmental conditions and can survive in the environment (soil, pasture, pens, etc.) for long periods of time. Infection usually occurs in young animals, but clinical signs of the disease do not usually develop until animals are 18 months of age or older. Calves typically become infected at a young age by being exposed to MAP in contaminated pens, nursing colostrum from a manure-contaminated teat or through being fed milk from an infected cow. Transmission can also occur from the dam to calf before the calf is born (in utero).

A herd can be unknowingly exposed when an infected, nonsymptomatic heifer or cow is purchased and brought onto a farm. Although showing no signs of illness, she could be shedding infectious organisms and contaminating pens and pastures, thereby exposing susceptible animals. At some point, the introduced animal may show clinical signs of the disease, but by then, she has exposed several other animals in the herd.

The prevalence of this disease in U.S. dairy herds is estimated to be approximately 68 percent. The most common signs associated with Johne's disease are rapid weight loss and severe

diarrhea, leading to drastic weight loss and lowered milk yields. Infected animals continue to have good appetites, but they tend to "waste away" as a consequence of the disease. The infection affects the wall. This leads to very poor absorption of nutrients and, subsequently, diarrhea, slow emaciation and eventual death. Testing for the disease can include testing manure, blood or milk. A blood test or milk test can be done on individual animals to screen Johne's in the herd. Manure from a suspect animal can be tested using a fecal culture or a PCR test to aid in diagnosing possible cases. Currently, there is no cure or satisfactory treatment for this disease. The best way to control this disease is through good management practices and purchasing animals from a certified Johne's-free herd. Some management practices that can help minimize risks of spreading Johne's include:

- Remove calves from dams within one hour of birth and provide colostrum from known Johne's negative cows.
- Separate young stock housing areas from adult housing areas, and do not feed unpasteurized waste milk to the calves.
- Avoid using the same equipment (loader buckets, skid steers) to handle feed and manure.
- Before entering calf housing, thoroughly wash and disinfect boots to remove all manure.
- Ear notch known positive animals to easily identify them as high-risk shedders. Δ

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