

Livestock Health Series

Johne's Disease

Jeremy Powell, DVM
Extension Veterinarian

Paratuberculosis or Johne's (pronounced "Yo-nees") disease is a chronic, incurable, contagious infection of the intestinal tract. Johne's disease is named after the German veterinarian that first discovered it in 1895. This disease is caused by the bacterium *Mycobacterium paratuberculosis*.

This pathogen is extremely resistant to environmental conditions and can survive in the environment (soil, pasture, etc.) for periods longer than one year. Infection usually occurs in young animals, but clinical signs of the disease do not develop until animals are older than 18 months.

Calves typically become infected when they nurse udders that are contaminated with the organism or if they are housed in contaminated pens/pastures. A herd can be unknowingly exposed when a non-symptomatic infected cow is purchased and brought onto a farm. Although showing no signs of illness, she will shed the infectious organism and contaminate the pastures and expose other susceptible animals. At some point, the introduced animal will show clinical signs of the disease, but by then she may have exposed several others in the herd.

The prevalence of this disease in the U.S. cattle population ranges from approximately 8 percent in beef

cattle and up to 22 percent in dairy cattle. It also can affect other ruminants such as sheep, goats, deer and bison. Potential for wildlife to serve as a significant infection source is undetermined but seemingly very possible.

The most common signs associated with Johne's disease are severe explosive diarrhea and rapid weight loss, leading to drastic performance loss and lowered milk yields. Infected animals continue to have good appetites, but they tend to "waste away" because of the disease. The bacteria affect the lining of the small intestine, causing a thickening of the wall. This leads to very poor absorption of nutrients, diarrhea, slow emaciation and eventually death.

There are a couple of tests used to aid in the diagnosis of the disease. A blood test can be done to screen animals coming into the herd, and a fecal culture test is also available to aid in diagnosis, although it takes substantially longer to receive results for infected animals. 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-negative herd. For more information about this disease, contact your local county Extension office.

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JEREMY POWELL, DVM, is Extension veterinarian with the University of Arkansas Cooperative Extension Service in Fayetteville. FSA3085-PD-2-04N

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