WHAT IS BJD?

Bovine Johne's disease (BJD) is an incurable infection of cattle, which causes wasting and chronic diarrhoea. It results in lost production and can end in the animal's death.

There are two recognised strains of Johne's disease in Australia, cattle strain and sheep strain (ovine Johne's disease, or OJD). BJD is the more common infection in cattle but there have been examples of cattle being infected with OJD, probably as a result of co-grazing with OJD infected sheep.

BJD is caused by a bacterium (Mycobacterium paratuberculosis) that lives mainly in the intestines of infected animals. It causes the intestinal wall to thicken and reduces the normal absorption of nutrients from grazing, so the animal can eventually starve to death.

ABOUT THE DISEASE

The micro-organisms causing BJD are tough and can live for a long time in the environment.

Recent research in southern Australia shows that heat and sunlight destroy BJD and that under normal summer conditions in paddocks and waterways around 90% of the bacteria die within six weeks. However, in the right conditions – moist, shaded areas – the BJD bacteria can survive for longer than 12 months.

Clinical cases of BJD occur occasionally in infected herds, if left uncontrolled the rate of infection can increase. BJD can cause significant mortality and reduced productivity, particularly in intensive management systems. It is recommended to take the necessary steps to eliminate BJD from infected beef herds to ensure the welfare of the herd, maintain optimum productivity and maximise marketing opportunities.

WHAT ARE THE SIGNS OF BJD?

While most cattle are infected as calves and they may not show any symptoms of BJD for many years, they are still likely to excrete the bacteria before developing clinical signs. And though the numbers of infected cattle in a herd may start out low, the rate of infection can increase significantly if BJD is not controlled. Visibly sick and dying animals can cause animal welfare issues and reduce production.

The most common signs are chronic diarrhoea (scouring), wasting and eventual death.

However not all infected cattle show these signs. Some animals just fail to reach their full productive potential.

BJD occurs in more dairy herds than beef herds. The number of beef herds known to be infected with BJD in Australia is very low, with the disease occurring more frequently in the southern states. While northern Australia is relatively free of the disease and therefore deemed a Protected Zone, only Western Australia is considered a BJD Free Zone.
Why prevent BJD in beef herds?

If BJD is introduced into a beef herd the impact on a business can be severe, particularly for producers selling breeding animals. The reputation of seed-stock producers can be damaged if animals that have been sold to clients are subsequently found to be infected.

Once established in a herd BJD is difficult to eradicate, so prevention through biosecurity practices is a sound investment. BJD enters a herd through the introduction of infected animals either by purchasing or agisting infected stock.

Australia’s low prevalence of BJD in beef herds is recognised internationally. Since large parts of Australia and the majority of beef herds are free of BJD, it is worth investing in a program that continues to protect this desirable animal-health status and reduces the risk of disease spread.

Taking no action to control and maintain the level of infection in Australian beef herds at very low levels has the potential to undermine Australia’s reputation as a supplier of premium beef products on world markets.

How is BJD spread?

Animals usually become infected at a very early age and pick up the infection as they eat or drink from contaminated pastures, water and udders, or from contaminated milk of infected cows.

In situations where there is a high pasture contamination level older animals may become infected. Some infected animals are capable of shedding billions of organisms in their faeces on a daily basis.

Infection occurs at an early age when calves suckle from contaminated udders or milk of infected cows.

Calves pick up infection from contaminated pastures and water.

Infected cattle shed bacteria in faeces.

There is considerable scientific discussion internationally about the possible link between Johne’s disease in cattle and Crohn’s disease in people. Though the evidence to date does not support the theory that Johne’s disease in grazing animals is related to Crohn’s disease in people, it is prudent to manage Johne’s disease as a precautionary measure.

Several of Australia’s major markets and competitor countries require certification for BJD status and are implementing BJD control programs, so infected herds could be excluded from particular markets that require certification of absence of disease.