

Salmonellosis in Dairy Cattle

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**BIOSECURITY
TASMANIA**

Overview

Salmonellosis is the clinical disease caused by a bacteria called Salmonella, which can live for long periods in the environment. Salmonellosis is a notifiable disease in Tasmania because of the risk to human health and also because it can cause serious losses on farm. It is most commonly associated with diarrhoea in adult dairy cows. It can occur in an individual animal or as an outbreak.

Human Health Risk

Salmonellosis is a zoonotic disease, which means it can infect and cause serious illness in humans. Maintaining good hygiene practices is essential to reducing the zoonotic risk. Young children, pregnant women and immunocompromised people are more susceptible to the disease. Prevention measures of transfer of Salmonella to humans from infected animals include:

- Don't drink milk from the vat and consuming other unpasteurised dairy products.
- Always wear gloves when treating infected animals.
- Practice good hand hygiene, including wash your hands well before handling food and immediately after handling animals.
- Be very cautious with immunocompromised people, pregnant women and children. For example, avoid taking those listed into dairies, especially when there are clinical cases of Salmonella occurring.
- Keep dirty or soiled farm clothes, boots and equipment out of the house.
- Avoid taking children into the calf shed and don't let calves suck fingers.

For more information on Salmonella in humans visit [Salmonella | Public Health \(dhhs.tas.gov.au\)](https://www.dhhs.tas.gov.au), or call the **Public Health Hotline on 1800 671 738**.

Clinical Signs in Cattle

The most common presenting sign of Salmonellosis is diarrhoea. This is often associated with depression, dehydration and fever. The diarrhoea can be mucoid and may contain gut lining and/or blood, it is often very unpleasant-smelling. Other early signs may include a sudden drop in milk production and loss of appetite.

The bacteria also travel through the bloodstream of the cow or calf to other parts of the body and may also be shed in the milk, saliva and nasal discharge. It can also enter the placenta in pregnant cows and may result in abortion.

In calves' respiratory disease, joint infections, jaundice, septicaemia and sudden death may also be seen.

How do cattle get Salmonellosis?

Salmonella can be spread in several different ways including:

- Direct animal to animal contact in an infected herd.
- Other animals, for example vermin or birds.
- Dirty clothing or equipment for example calf feeders.
- Application of untreated effluent on pastures without an adequate withhold period.

- Airborne bacteria.
- Contamination of feed or water supply.
- Carrier animals shedding bacteria.

The diarrhoea contains a large amounts of Salmonella bacteria which contaminates the environment and things that come in contact with the diarrhoea. Salmonella is persistent and can live up to 28 weeks in the environment.

Cattle that have previously been infected may become carrier animals. This means that they shed the bacteria without clinical signs. Re-shedding of the bacteria may be exacerbated by stressors, such as transport, extreme weather events, water and feed deprivation or calving.

Prevention of Salmonellosis

Prevention of Salmonellosis should focus on reducing the risk of cattle becoming infected, reducing the risk of spread within a herd and improving the immunity of the herd, which is achieved through good biosecurity practices. These include:

- Maintain a “closed” herd if possible.
- Use good biosecurity practices if any animals must be introduced. For example, find out previous herd history and vaccination status.
- Have in place effective rodent and bird control, particularly around feed troughs and silos.
- Clean feed troughs regularly.
- Isolate infected animals immediately.
- Ensure an all-in all-out system for calf shed, with cleaning, disinfection and complete bedding changes between groups of calves.
- Feed infected or quarantined stock after feeding healthy calves.
- Do not feed waste milk from cows to calves, especially if cows have diarrhoea.
- Provide high quality colostrum to newborn calves.
- Avoid stressing animals by depriving them from food and water.
- Keep calves away from paddocks where dairy effluent is sprayed.

- Good transition cow and calving management to avoid acidosis.
- Do not feed magnesium oxide above recommended dosage.
- Vaccination.

The Dairy Australia publication [“Rearing Healthy Calves Manual - second edition \(October 2020\)”](#) provides good information on cow and calf management.

What do I do if I think an animal has Salmonellosis?

Isolate it from the rest of the herd and seek veterinary advice promptly. Early treatment will usually result in survival of an animal, if treatment is delayed for greater than 48 hours from onset of clinical signs, the chances of survival are greatly reduced due to the damage of the intestine and dehydration.

Consider vaccination of the herd in severe outbreaks, although the results may be variable. It is important to get the Salmonella strain serotyped at the laboratory to ensure you use the correct vaccine, you should discuss this option with your vet.

What do I do if the animal dies?

All animal carcasses should be burned or buried. If an animal dies due to Salmonellosis the carcass contains Salmonella bacteria. If other animals feed on it, they may get sick and/or pass the bacteria in their droppings and contaminate feed or water supplies.

Further information and contact

Further information on cattle health can be found on the website [Cattle Biosecurity](#).

To report any notifiable disease, phone the **Emergency Disease Hotline: 1800 675 888**.

For further information on Tasmania's notifiable diseases or on the legal requirements relating to notifiable diseases, phone **Animal Disease Enquiries on 03 6165 3777**. Or email to: AnimalDisease.Enquiries@dpipwe.tas.gov.au