

FACT SHEET

LEPTOSPIROSIS



livestock
health &
biosecurity
VICTORIA



Victorian
Farmers
Federation

WHAT IS LEPTOSPIROSIS?

Leptospirosis is an infectious disease affecting cattle and less commonly sheep and goats.

It is caused by the bacterium *Leptospira*, and the two predominant strains affecting Victorian cattle are *Leptospira hardjovis* and *Leptospira pomona*. They are contagious, causing economic loss through increased abortions and calf deaths.

Leptospirosis is transmittable to humans. If someone is infected, the economic burden is increased by medical expenses and recovery time away from work.

It is also an occupational hazard for other stock handlers such as abattoir workers and veterinarians.

Leptospirosis is a notifiable disease in Victoria. Contact Agriculture Victoria if you have an infected herd.

HOW IS IT SPREAD?

The disease can spread between animals a number of ways:

- ▶ infected stock contaminate the surrounding environment by excreting the bacterium through urine, contaminating pastures, water supplies and soil
- ▶ it enters the body through exposed flesh such as cuts or membranes including eyes, nose and mouth
- ▶ if conditions are favourable the bacteria can live in the environment for several weeks. It prefers warm moist soil, the surface of fresh water supplies and muddy conditions.

The disease can spread from animals to humans through:

- ▶ broken skin such as cuts and abrasions
- ▶ handling aborted foetus and afterbirth or assisting during calving without gloves
- ▶ poor hygiene practices such as not washing hands properly after contact with livestock
- ▶ indirectly from infected water or soil
- ▶ urine from infected stock reaching eyes, mouth or nasal passage.

WHAT ARE THE SIGNS?

Common signs include:

- ▶ increased abortions, which generally occurs in heavily pregnant cows
- ▶ declined quality milk with a slack appearing udder and milk becoming inconsistent and yellow in colour
- ▶ reddish-brown discoloured urine, usually in calves
- ▶ a rough, dry coat.

CAN CATTLE DEVELOP IMMUNITY TO THE DISEASE?

Animals can develop immunity to both strains of the disease. Immunity is developed when an unvaccinated animal is exposed to the disease.

If a majority of the herd develops immunity to leptospirosis, this reduces exposure to the disease, weakening the immune response, and putting cattle at risk of re-infection if they are not vaccinated.

Cows that have been previously infected, or vaccinated, provide antibodies in colostrum, providing immunity to their calves for up to six months.

MANAGING LEPTOSPIROSIS

Management strategies to control leptospirosis include:

- ▶ implementing a vaccination program in consultation with your vet
- ▶ purchasing vaccinated stock with an animal health statement to reduce the risk of introducing infection to your herd.
- ▶ avoid running calves on poorly drained areas or paddocks with run-off from neighbouring livestock.

VACCINATION

Vaccination offers the best protection against the disease. Consult your vet about using vaccines such as Zoetis Animal Health's Ultravac® 7in1 and Leptosshield®.

Points to consider with vaccination include:

- ▶ handle and store vaccines according to label recommendations
- ▶ ensure needles are sharp and clean and equipment is calibrated to the correct dosage
- ▶ vaccine should be administered subcutaneously, under the skin
- ▶ unvaccinated cattle require two doses of vaccine, four to six weeks apart
- ▶ vaccinated cattle require an annual booster to sustain a high level of immunity
- ▶ calves can be vaccinated from one month of age and should receive two doses of vaccine four to six weeks apart. This should be followed by an annual booster at six to nine months of age if retaining stock for breeding purposes.
- ▶ new cattle should be vaccinated on arrival if previously unvaccinated or vaccination history is unknown. Administer two doses of vaccine four to six weeks apart, followed by an annual booster.
- ▶ animals that are already infected with leptospirosis at the time of vaccination may remain carriers and may continue to shed leptospirae in the urine for several months, despite subsequent vaccination.

TAKE HOME MESSAGES:

- ▶ Leptospirosis is an infectious disease causing economic loss through abortion and calf deaths.
- ▶ An effective vaccination program offers the best protection against the disease.
- ▶ Consult your vet about the treatment of leptospirosis.
- ▶ Leptospirosis is transmittable to humans, posing a risk to human health when working with infected stock.
- ▶ Seek immediate medical attention if you think you may have contracted the disease.

HUMAN HEALTH

Leptospirosis in humans is a notifiable disease in Australia. Humans infected with the disease may exhibit the following symptoms:

- ▶ high fever for approximately seven to 10 days
- ▶ headache and an aversion to light
- ▶ vomiting
- ▶ muscular and abdominal pain.

Prevent human illness by:

- ▶ regularly vaccinating stock
- ▶ wearing gloves when examining infected stock
- ▶ thoroughly washing hands after contact with cattle.

Seek immediate medical attention if you think you may have contracted the disease.

For further information, please contact the VFF Livestock Group on 1300 882 833 or lhbv@vff.org.au

FURTHER LINKS

[VFF Livestock Resources](#)

www.vff.org.au/vff/Farming_Resources/Animal_Health/vff/Industry_Groups/Livestock/Resource.aspx?hkey=642e8%20d84-4f16-%2048c7-af54-%2041d67c976445

[Agriculture Victoria](#)

<http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/beef-and-dairy-cows/leptospirosis-in-cattle-pigs-sheep-goats-horses-and-humans>

[NSW Department of Primary Industries](#)

www.dpi.nsw.gov.au/___data/assets/pdf_file/0014/110084/leptospirosis-in-cattle-herds.pdf

[Zoetis Animal Health](#)

www.zoetis.com.au/diseases/leptospirosis.aspx

Author: VFF, original version published November 2012, updated October 2016.
Disclaimer: The Victorian Farmers Federation (VFF), its partners, agents and contractors do not guarantee that this publication is without flaw and do not accept any liability whatsoever for any errors, defects or omissions in the information provided. This publication is intended for general information purposes only and does not constitute financial, legal, investment, production or marketing advice. The VFF excludes all liability for any loss or damage of any kind arising in relation to this publication including any reliance on the information contained herein.