



LEPTOSPIROSIS: FACTS FOR PEOPLE WHO WORK WITH SHEEP AND WOOL

Sheep can be carriers of Leptospirosis and can pass it on to humans as well as other animals. Leptospirosis is an animal disease that can infect humans, also known as a zoonosis. Leptospirosis can infect all farm animals — beef and dairy cattle, pigs, goats, deer and dogs. Rats can also spread the disease.

What is Leptospirosis?

Leptospirosis is caused by bacteria known as leptospire. These multiply in the kidneys of animals and are shed in the urine. Reproductive tissues can also be infected. Often, an animal carrying Leptospirosis shows no clinical signs, though you may lose lambs to abortion or they may die from red water disease. Dogs can also suffer kidney failure.

How does Leptospirosis affect people?

If you catch Leptospirosis, it may just feel like a bad case of flu, with headaches and fever. Some people become seriously ill and need hospital intensive care and it can cause death. It can also be very costly. People may be unable to work for months and have lasting kidney or liver damage. In the worst cases, they are unable to go back to running their farm, and the disease keeps coming back. Pregnant women who catch Leptospirosis can miscarry.

How are sheep infected with Leptospirosis?

Animals are affected by grazing pasture or drinking water contaminated with the urine of infected animals. The infection enters through the membranes of the eyes, nose and mouth. Leptospirosis spreads easily. An infected animal sheds millions of leptospire in its urine. The bacteria thrive in moist or wet conditions and can survive for months. Any animals sharing pasture can be infected. Introducing new breeding stock or dairy grazers may bring infection.

Can sheep be tested for Leptospirosis?

A vet can take a blood test that will show (within 48 hours) if sheep have antibodies to Leptospirosis. This indicates that the stock either have been exposed to Leptospirosis, or have been vaccinated against it.

How do you control Leptospirosis?

The aim is to stop animals from shedding infectious urine, and to prevent urine contamination, e.g. by fencing off waterways and keeping rodents out of feeds such as hay.



Antibiotics can be used to stop the shedding short-term. Vaccination provides a longer term protection.

There is no vaccine yet for the leptospire type *ballum*, which is passed on by rats, mice and hedgehogs. The main control is to eradicate the rodents and keep feed supplies sealed.

Other strategies to reduce risk are also important:

- Sheep farmers should check the vaccination status of any cattle coming on to their land. Blood test and quarantine them if there is any doubt.
- If vaccination is required, quarantine until at least ten days after the second dose (ask a vet).

Effective vaccines are available for the three main strains which affect sheep: *hardjo*, *pomona* and *copenhageni*. Dogs can also be vaccinated against these.

Who is at risk of being infected by sheep?

Anyone who works close enough to the animals to be splashed or sprayed with their urine or contaminated water. For example, there is a higher risk in tasks like:

- Tailing, docking, dagging, crutching
- Shearing
- Handling urine-soaked belly wool
- Loading for transport
- Washing down the woolshed
- Assisting with births or stillbirths.

Leptospirosis may be in an aborted foetus. The risk of infection is greater for people who have uncovered skin cuts or work in wet conditions. The highest risk is for people continually exposed to urine splash or spray, such as meat processing workers.

Farm staff, contract workers and others

Casual, part-time and contract workers carry out many of the higher risk tasks on a sheep farm. So do farm visitors such as vets.

Family members including children can also be at risk if they run about barefoot or paddle in contaminated water. Gardeners have been infected by contaminated soil.

Farm owners have a responsibility under the Health and Safety in Employment Act 1992 to ensure the safety of these people, as well as the people they employ.

How can you protect against infection?

Humans are usually infected by the urine of an infected animal, or water contaminated with urine. The most common routes of infection are through the eyes, nose and mouth, or through cracks or cuts in the skin.

Anyone whose hands are split or grazed should wear gloves when working closely with sheep. Use leather gardening gloves or similar when handling hay. Skin cuts should be covered with waterproof dressing, and regularly changed. Deeper wounds should be fully healed before doing close work like shearing.

Leave sheep in the yards for at least 24 hours so they are "empty" of urine when handled. Empty sheep make the shearer's job safer for a number of reasons. Good personal hygiene is a good protection. If working in wet conditions or assisting with lambing, extra personal protective equipment (PPE) may be needed, e.g.

- Overalls, waterproof footwear
- Gloves for pizzle-stained wool
- Veterinary gloves.

Have clean toilet and hand-washing facilities, with running water and disposable towels.

Display first aid advice

- Have a kit with waterproof coverings for any skin cuts.
- Remind people (e.g. with a poster notice) that Leptospirosis may be a risk, to avoid urine splash and spray, and to wash and dry hands before smoking or eating.

First aid if you have been exposed to urine

- Wash face well; flush out mouth and eyes with lots of running water.
- "Bleed" cuts, flush fresh or old cuts and grazes with water.
- See a doctor within 24 hours to get a blood sample and get treatment with antibiotics.
- **IMPORTANT:** The sample must be taken **BEFORE** you take any medication.
- Another sample will be needed in about three weeks' time. Tell the doctor that you work with animals and may have been exposed to Leptospirosis.

Watch your health

Go to the doctor if you have:

- Headaches
- Aching muscles
- The light hurts your eyes
- Fever or chills
- Nausea or vomiting.

Do this if you feel ill, even if you don't think you have been exposed to animal urine. Remind your doctor that you work with sheep and that Leptospirosis may be a cause of your symptoms. Ask for the appropriate tests. The sooner treatment starts, the better.

Find out more:

You can download a copy of Guidelines for the Control of Occupationally Acquired Leptospirosis and other information from www.dol.govt.nz. See also the other bulletins in this series, e.g. for beef and deer farmers, and meat processing workers.

