

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 a zoonosis, that is a disease of animals that can infect humans. Leptospirosis can infect all farm animals – beef and dairy cattle, pigs, goats, deer and dogs. Rats can also spread the disease.

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.

What are the effects of leptospirosis?

Most sheep infected with leptospirosis still grow and thrive and do not show symptoms. Redwater (haemolytic anaemia) may be caused by leptospirosis. Dogs can also suffer kidney failure.

Humans who catch leptospirosis may feel they have a bad case of flu, with headaches and fever.

But it can cause death, and some people become seriously ill and need hospital intensive care. Sufferers and their families say it is a “cruel disease.” 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, the disease keeps coming back and they have to give up their job.

How are sheep infected with leptospirosis?

The infection enters through the membranes of the eyes, nose and mouth. Animals are infected by grazing pasture or by drinking water contaminated with the urine of infected animals.

Leptospirosis spreads easily. An infected animal sheds millions of leptospire in its urine. The bacteria can live for months in moist conditions.

Introducing new breeding stock or dairy grazers may bring infection.

How are people infected by sheep?

The most common means of infection is through the eyes, nose and mouth, or through cuts in the skin. There is a low risk of contact with infected urine in everyday sheep farming activities such as

moving stock or feeding out. 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.

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. Antibodies are found if animals have been exposed to leptospirosis, or vaccinated against it.

In future, there may be a quick test to show if animals are currently shedding leptospire. They can then be isolated for special treatment.

Is leptospirosis a real issue for this industry?

People are being infected with leptospirosis by sheep. Most of them are meatworkers in sheep-only processing plants.

Some sheep farmers have contracted the disease. Recently, a shearer was seriously ill.

Only a small percentage of flocks may be infected – but that could be half a million sheep. If leptospirosis is on a farm, many sheep on that farm may be infected.

Sheep cross-grazed with unvaccinated cattle, or with access to waterways that may have been polluted by unvaccinated cattle, are likely to be at risk of infection. Cases of infection in humans from sheep seem to be



Regular hand washing is important to avoid catching leptospirosis.

increasing in new areas of dairy farming in the South Island.

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, and is recommended for both beef and dairy cattle.

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).

Vaccination for sheep should be considered if testing shows the flock has a problem with leptospirosis. Effective vaccines are available for the three main strains which affect sheep: *hardjo*, *pomona* and *copenhageni*. Dogs can also be vaccinated against these.

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

Protect yourself: empty sheep, clean hands

Anyone whose hands are split or grazed should wear gloves when working close to sheep.

Skin cuts should be covered with waterproof dressings, 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 belly wool;
- Veterinary gloves.

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 to ensure the safety of these people, as well as the people they employ. Protections against leptospirosis could include:

- Ensuring sheep are empty before shearing.
- Clean toilet and hand-washing facilities, with running water and disposable towels.
- First aid advice and a kit with waterproof coverings for any skin cuts.
- A reminder 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 pills.

- 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.

Go to the doctor if you feel:

- 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. The sooner treatment starts, the better.

Find out more:

See *Guidelines for the Control of Occupationally Acquired Leptospirosis*, available from your local OSH branch. You can download a copy of this and other information from the OSH Safety Net web site: www.osh.dol.govt.nz

See also the other bulletins in this series, e.g. for beef farmers and meat processing workers.



To avoid infection, always cover cuts.



Wear all the protective gear needed.