

Ovine Johne's disease (OJD)

Animal Biosecurity Unit

Since ovine Johne's disease (OJD) was found in Australia in 1980, it has proven to be a costly disease. It spreads slowly, is difficult to detect early on, reduces weight gain and wool production and can kill about 10% of adult sheep each year if left unmanaged.

What is OJD?

OJD is a wasting disease caused by the sheep strain of the bacterium *Mycobacterium paratuberculosis*, which grows mainly in the small intestine. The intestinal wall slowly thickens and the animal has increasing trouble absorbing nutrients from its food. OJD has a long incubation period, usually more than 2 years, but eventually a number of infected animals will develop obvious signs of the disease; they start to rapidly lose condition and usually die within the next 3 to 6 months. Scouring may occur but is not seen routinely. Merinos are more susceptible than crossbreds and British breed sheep. Goats, deer and other species can be infected to varying degrees. There is no cure for sheep with OJD.

How does it spread on farm?

The OJD bacteria are shed in huge numbers in the faeces. Animals pick up the infection from contaminated teats, pasture and water. The bacteria can survive for many months in shaded environments.

How does it spread between farms?

Bought-in sheep and strays are the main risk. Sheep droppings and contaminated run-off can also spread the infection between farms.

Why bother about OJD?

In Australia, death rates around 10% are common if OJD is not managed. Recent NZ research has

reported losses of 17% of weaner weight and 10% of wool cut in sub-clinical cases in crossbreds. Once it gets into an area all flocks are at risk. The earlier you act, the less will be the impact of OJD on your business. Assuring sheep buyers about the OJD status of your sheep is becoming the norm.

How do I know if my sheep have it?

If infection enters the flock, there's often no sign for the first few years. Some animals can be infected and spreading the disease even though the flock still looks healthy. The first thing you might notice is a persistent tail in one or two mobs that won't respond to drenching. You might notice a few poor doers that aren't around next time you check in the paddock. By the time you see obvious OJD deaths the disease is likely to be well established and it will take some years to get the situation under control.

The best place to look for the disease is in the 2 and 3 year olds.

What can I do to help keep the disease out?

This depends to some extent on whether your flock is already infected and how much OJD is in your district, but there are some basic rules.

- Only buy in or agist vaccinated sheep or sheep with plenty of assurance based credit (ABC) points (see Primefact 664 [OJD - The Sheep Health Statement](#)).
- Vaccinate your flock if there is a risk of OJD coming in with purchases or from neighbours.
- Improve your flock's resistance to disease through good nutrition and worm control.
- Work with neighbours to reduce spread between farms.
- Contact your local District Veterinarian or approved SheepMAP vet about developing an OJD biosecurity plan for your flock/property.



What can I do if my flock is already infected?

Vaccinate all sheep as lambs (by 16 weeks of age). Cull any sheep showing signs of OJD. This is important on welfare grounds and it also helps to reduce contamination of your land. Use the dung test (pooled faecal culture test) to identify and cull heavily shedding mobs. Manage your grazing patterns to reduce the exposure of young sheep to OJD. Clean up contaminated pasture by:

- grazing with adult cattle,
- rotating with crops,
- re-sowing pasture,
- grazing with 'clean' sheep, then selling them straight to slaughter.

Avoid feeding on the ground – use troughs or automatic feeders. Fence off high risk areas such as low lying wet areas where water seepage may be contaminated. Consider changing your enterprise mix so that you are running fewer susceptible animals.

What happens if I do nothing?

If your flock is already infected and you do nothing:

- the disease will slowly spread throughout your flock,
- each new drop of lambs will be exposed, and eventually a significant proportion of your animals will be infected,
- you may see mortalities early on, or they may not start until your animals are older or under stress, e.g. when feed gets tight or worms get going;
- there is a strong chance that your sheep will spread the infection to neighbours.

If your flock is not infected and you do nothing:

- you run a big risk of eventually ending up with infection.

Who can I talk to?

- The District Veterinarian at your RLPB,
- approved SheepMAP vets,
- rangers at your RLPB,
- Livestock Officers with NSW DPI.

Ring your local NSW DPI Office. Each officer can provide different levels of advice from specific technical advice to general advice on the use of the vaccine and the management of OJD. For more information go to <http://www.ojdinfo.nsw.gov.au>

The information in this Primefact was adapted from the previous *OJD Information sheet 1* by Therese Wright, Policy Officer, Animal Biosecurity Unit.

© State of New South Wales through NSW Department of Primary Industries 2008. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute NSW Department of Primary Industries as the owner.

ISSN 1832-6668

Check for updates of this Primefact at:

www.dpi.nsw.gov.au/primefacts

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (May 2008). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

Job number 8084

TRIM PUB08/68