

OJD – knowing or suspecting infection

Animal Biosecurity Unit

What is OJD?

Ovine Johne's disease (OJD) is an incurable wasting disease that can exist in some sheep flocks for years without obvious signs.

The disease is caused by *Mycobacterium paratuberculosis*, a bacterium that invades the lining of the gut wall and interferes with digestion.

The bacteria multiply in the gut wall and are shed in the dung. The disease spreads when uninfected sheep consume grass or water that has been contaminated by infected animals.

Some sheep can remain infected for life without developing clinical signs. These animals, however, may still shed infectious bacteria.

A proportion of infected sheep, usually over two years of age, will start to lose condition, although they generally remain bright and continue to graze. This onset of clinical signs often seems to be triggered by a period of stress such as lambing, poor nutrition, a heavy worm burden, or being moved to a new locality.

These 'clinical cases' continue to waste away and usually die within 3–6 months. Deaths tend to occur sporadically throughout the year rather than as an outbreak. Scouring may also be noticed but this is not a typical symptom.

When might I suspect that my flock has OJD?

There are several reasons to suspect OJD in your flock. These include:

- A persistent 'tail' in some mobs. The poor does are generally over 18 months of age and have symptoms suggestive of OJD, with no other cause being identified.
- You have received a positive abattoir report for sheep that came from your property within the last 12 months.
- Your flock neighbours an infected flock.

- You have introduced sheep from another flock that:
 - is known or suspected to be infected;
 - is located in a high prevalence area;
 - has no Assurance Based Credit (ABC) points.
- You have sold sheep to a person who subsequently finds infection in their flock and can not identify any other likely source.
- Your sheep have been grazing on land or using yards and sheds that have previously been used by OJD-infected sheep and are therefore likely to be contaminated.
- You have received a report from a veterinarian or a laboratory indicating that your sheep are likely to be infected.

What should I do if I suspect OJD in my flock?

Talk to your vet! If you have a reason to suspect infection, then a risk assessment (assessing the likelihood that your flock really is or isn't infected) needs to be done. An approved SheepMAP veterinarian is the best person to help you with a risk assessment.

Testing usually provides valuable information for the risk assessment.

An approved SheepMAP veterinarian can help you to determine which sheep to test, when to test them and, most importantly, how to interpret the test results.

A list of approved SheepMAP vets is available at www.ojd.com.au

How is infection confirmed?

Infection can only be confirmed by laboratory testing.

There are two main confirmatory (definitive) tests.

- Post mortem/histopathology – this involves killing the sheep and examining the internal



organs. Sections of the intestinal wall are then checked under a microscope for the presence of the OJD bacteria and typical signs of OJD damage. Tissue is usually collected at post-mortem, but may be taken from live sheep by surgical biopsy.

- Culture of dung or tissue – where the bacteria are grown from samples of dung or tissue. Dung may be collected from a single animal or from a group for pooled faecal culture.

There are other tests such as a blood test and a direct faecal test. Both these tests are quick, but a negative result is less reliable than a negative result from a confirmatory (definitive) test.

If my flock has been exposed to infection and I notice unexplained ill-thrift, should I just assume OJD and not bother with laboratory testing?

No. There are other causes of ill-thrift, and exposure to OJD does not always result in infection. Therefore, you should consult an approved veterinarian to find the cause of any unexplained ill-thrift or mortality problems in your flock. They may be treatable.

If my flock tests negative, does that clear my property of OJD?

Not necessarily, it depends on the circumstances. OJD spreads easily and is usually undetectable in a flock in its early stages, so absence of infection can never be guaranteed.

A negative test may only tell you that the infection was not detectable, within the limits of the test used, at the time the samples were taken.

What can I do to clear my flock once I know or suspect that my sheep are infected?

It has been agreed nationally that removal of infection is dependent on:

- a prescribed combination of vaccination and negative testing (see the notes on the reverse of the [Sheep Health Statement](#)), or
- a combination of destocking and decontamination in a manner that is approved by the Chief Veterinary Officer of the jurisdiction.

In addition, the NSW Chief Veterinary Officer has agreed that suspicion of infection in a flock may be removed if an approved veterinarian has:

- undertaken a risk assessment, usually including laboratory testing, and
- concluded, on the basis of the risk assessment, that the flock is unlikely to be infected.

The information in this Primefact was adapted from the previous *OJD Information sheet 7* by Therese Wright, Policy Officer, Animal Biosecurity Unit.

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