

# FACT SHEET

## OVINE JOHNE'S DISEASE



**stock  
sense**  
health | welfare | biosecurity



**Victorian  
Farmers  
Federation**

### WHAT IS OVINE JOHNE'S DISEASE?

Ovine Johne's disease (OJD) is an infectious and incurable wasting disease of sheep caused by *Mycobacterium paratuberculosis*.

It is a notifiable disease in Australia and has been heavily regulated in the past. Most regulations have now been relaxed with control of the disease now managed by individual producers.

The disease spread from an initial focus of infection in the NSW central tablelands in the 1980s to now affect most medium to high rainfall regions of Australia.

The disease is caused principally by the ingestion of the mycobacteria when grazing, with young stock being most susceptible. The development of clinical disease takes a few years, and the age an animal may break down will depend on a number of factors including; the age of initial exposure and the amount of mycobacteria ingested.

### IMPACT OF OVINE JOHNE'S DISEASE

OJD costs the sheep industry \$35 million annually; \$21 million in direct losses and \$14 million in preventative vaccination costs.

Losses in unvaccinated flocks are mainly due to increased mortality in adult sheep, which can be as high as 25 per cent annually in high stocking rate, self-replacing merino flocks.

Direct losses include:

- ▶ decrease in animal body weight, which starts to occur around 12 months before death
- ▶ reduced body weight contributing to reduced fertility in the final 12 months of disease
- ▶ increased mortalities
- ▶ reduced clean fleece weight of around six per cent in the year prior to death
- ▶ potential for a loss of markets in some areas, although this has reduced with decreased regulation
- ▶ increased trimming at abattoirs due to vaccination lesions.
- ▶ lower carcass weights

### IS MY FLOCK SUSCEPTIBLE?

The expression and prevalence of OJD is closely related to rainfall and resultant increased stocking rates. In low rainfall areas mortalities may be low and the disease may remain undetected. All sheep breeds are susceptible to OJD but anecdotally, self-replacing merino flocks appear to have a higher level of mortalities.

It is mainly spread through bought-in sheep and strays. Sheep droppings and contaminated run-off can also spread the infection between farms.

## CLINICAL SIGNS

OJD is a wasting disease, with affected sheep remaining bright and alert, with a normal appetite, up until the final stage of the disease. Diarrhoea is an inconsistent sign.

Affected flocks usually develop a distinct tail, with clinically affected animals one or two condition scores thinner than other sheep. These sheep usually go on to die within three-six months.

When the disease is first introduced it may take many years before becoming apparent.

## VACCINATION

Vaccinating all sheep under 16 weeks of age with Gudair® is highly effective at reducing mortality to background levels. However, the vaccine does not eliminate disease, and many flocks that have been vaccinating for multiple generations are still found to be infected.

To reduce the risk of injection reactions and self-inoculation use the recommended shielded Sekurus gun with ¼ inch (six mm) needle at 45° for lambs or adults in short wool, and 90° for adults in long wool.

The vaccine is highly reactive in animals and people and self-inoculation can cause serious reactions. If you accidentally inject yourself, wash the wound with soap and water allowing it to bleed freely and seek immediate medical attention. Visit <http://bit.ly/Gudair> for more information.

## DIAGNOSIS

If you suspect OJD, a veterinarian will be able to confirm by doing a post mortem examination on suspect sheep, and taking samples for a histology, culture or PCR.

The available diagnostic tests for OJD are of limited sensitivity in young or individual sheep but can be quite effective at diagnosing infected flocks.

Pooled faecal culture (PFC), or PCR tests, on pools of 50 faecal pellets from 350 sheep, is able to detect presence of disease if two per cent of the mob are infected, with an accuracy of 95 per cent. The PFC takes around three months to obtain a result.

Blood tests are available but are of lower sensitivity than culture or PCR tests.

Abattoir surveillance under the National Sheep Health Monitoring Program has dedicated inspectors examine lines of sheep gut, looking for characteristic changes in the intestines caused by OJD. Presence of disease is then confirmed with lab tests. This scheme is voluntary and Victorian producers who their mob inspected for OJD at the abattoir may request this through Agriculture Victoria.

## TAKE HOME MESSAGES:

- ▶ OJD causes significant on farm losses in medium and high rainfall zones.
- ▶ Vaccination is a highly effective tool for reducing on farm losses.
- ▶ Vaccinated sheep can still carry and spread the disease.

## PREVENTION

Preventing infection in high prevalence areas can be difficult and many producers will vaccinate to prevent disease.

Biosecurity practices are important to help reduce the risk of OJD infection:

- ▶ assess the risk of introducing OJD by requesting a Sheep Health Declaration when purchasing stock
- ▶ vaccinate your flock if the risk of infection is high
- ▶ only purchase approved vaccinates. Remember this may still bring in infection.
- ▶ reduce the chance of strays bringing in infection by ensuring boundary fences are sheep proof
- ▶ only buy in sheep from OJDMAP accredited flocks,

## LEGISLATION

Johne's disease is a notifiable disease in Australia.

The five year National Ovine Johne's disease Management Program ceased in June 2018, however controls of stock movements may still apply to sheep going into the existing regional biosecurity areas.

Producers should check the current requirements at [www.ojd.com.au](http://www.ojd.com.au) before moving sheep into these areas.

For more information contact Stock Sense on 1300 020 163 or email [stocksense@vff.org.au](mailto:stocksense@vff.org.au).

## FURTHER LINKS

[Meat & Livestock Australia](#)

<https://www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/diseases/infectious/johnes-disease/>

[Zoetis Animal Health](#)

[https://www.zoetis.com.au/diseases/ovine-johne\\_s-disease.aspx](https://www.zoetis.com.au/diseases/ovine-johne_s-disease.aspx)

[National Johne's disease Program](#)

<http://www.ojd.com.au/>

[Agriculture Victoria](#)

<http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/sheep/ovine-johnes-disease-ojd>

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