

# Ovine Johne's Disease (OJD)



A Silent but Costly Disease



# In Summary



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- Visit [www.ojd.com.au](http://www.ojd.com.au)



# What is OJD?



- OJD is an incurable, infectious wasting disease of sheep.
- OJD is caused by the sheep strain of bacterium *Mycobacterium paratuberculosis*.
- OJD causes the intestinal wall to slowly thicken, causing reduced absorption of nutrients from the intestine.



This is OJD

# A silent but costly disease



- OJD has a long incubation period (the time from initial infection of the sheep until it shows signs of disease).

## BUT

- Infected sheep can be shedding the bacteria in their manure for a considerable period (sometimes years) even though the flock still looks healthy.

## Signs of OJD



- OJD is often not diagnosed until a significant proportion of the flock is already infected & deaths are occurring.
- The classic sign of OJD in a mob is a distinct 'tail', with sheep ranging in condition from good to very poor - then the sheep in the 'tail' start dying.

A large flock of sheep is gathered in a field of green and brown grass. The sheep are of various sizes and colors, ranging from white to dark grey. They are arranged in a loose, somewhat circular pattern, with a distinct 'tail' of sheep at the back. The background shows a rolling landscape with green fields and distant hills under a clear sky.

## Sheep ranging in condition scores



Distinct 'tail' of the mob

## Signs of OJD (cont.)



- Infected sheep continue to eat & drink normally until they are too weak to graze & eventually die.
- Most infected sheep do not begin to show any signs of illness until after two years of age.
- From the onset of obvious signs of the disease, they rapidly lose condition & usually die within the next 3-6 months.





**3 year old wethers**

**from the same flock**

# How is OJD spread?



- OJD usually enters a flock through the introduction of infected sheep (bought in or agisted) or stray animals (from infected neighbours).
- Sheep manure & contaminated run-off can also spread the infection between farms once it has 'seeded' into an area.

# OJD moves with infected stock



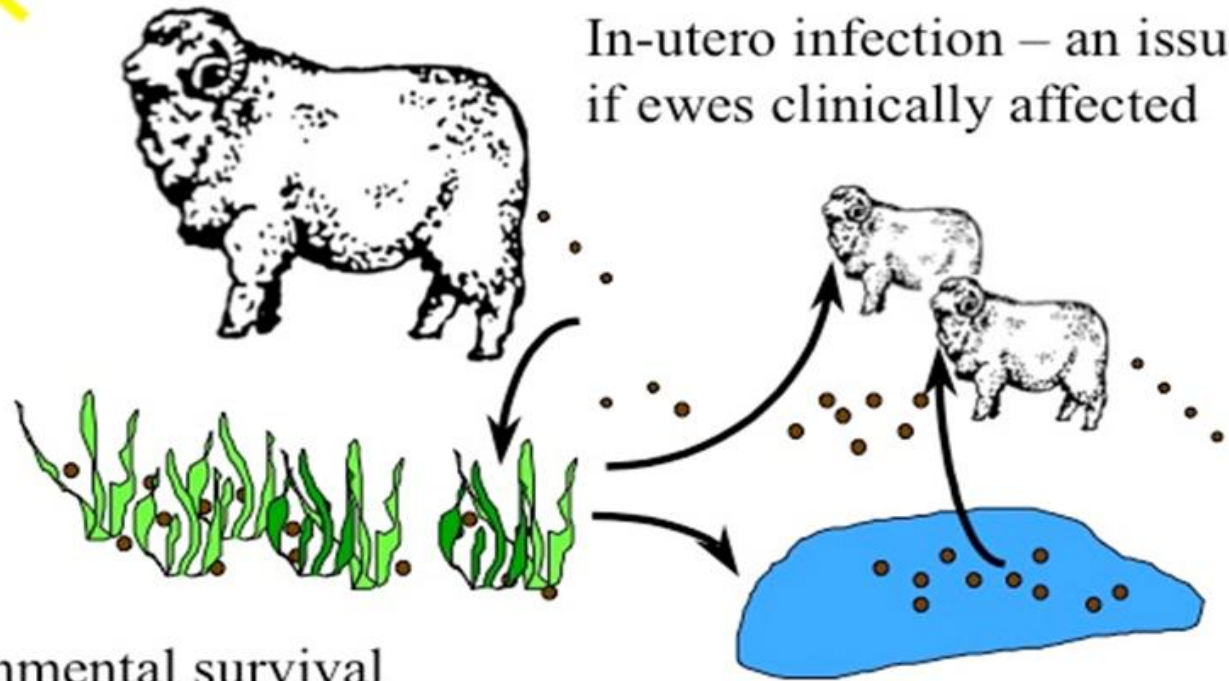
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# OJD transmission

In-utero infection – an issue only if ewes clinically affected



Environmental survival

Graphic: Professor R. Whittington

## OJD Transmission cont.



- Bacteria are passed in the manure of infected animals, contaminating pasture & water supplies & spreading infection to other susceptible sheep.
- The bacteria can survive for many months in shaded environments.
- Once a flock is endemically infected with OJD, it is difficult to eradicate.

# Why prevent OJD?



- OJD infection can result in significant economic losses on infected farms due to:
  - sheep deaths
  - lost production.
- Annual death rates in infected Australian sheep flocks of up to 25% annually have been seen.

# How to keep OJD out



- Only buy in or agist sheep with a high assurance level.
- Always ask for a signed Sheep Health Statement.
- Vaccinate your flock if there is a risk of OJD coming in from neighbours' properties, or if in a district with high prevalence.
- If you suspect that your flock may have OJD, have cases investigated immediately & start vaccinating.
- Work with neighbours to minimise potential spread between farms & consider joining a Regional Biosecurity Group.
- Always be on the look out.

# What to do if already infected



- Avoid buying any more infected sheep.
- Vaccinate all animals as lambs (before 16 weeks).
- Humanely slaughter any sheep showing signs of OJD – this helps to reduce contamination of your land.
- Use the dung test (pooled faecal culture test) to identify & cull heavily shedding mobs.
- Reduce exposure of young sheep to OJD by placing them on 'clean' pastures.
- Clean up contaminated pasture.
- Fence off low areas or creeks where water may be contaminated.



# Vaccination



- Vaccination is a valuable tool in reducing deaths and shedding of bacteria associated with OJD in infected flocks; however it is not fully effective and shedding can still occur.
- Some vaccinated sheep in an infected flock are likely to be infectious.

All sheep producers should:



Become familiar with the recommended practices for controlling OJD by visiting

[www.ojd.com.au](http://www.ojd.com.au)

