

Ovine Johne's Disease Exclusion Area Review 2010

Ovine Johne's Disease (OJD)

OJD is a wasting disease of sheep caused by the bacterium *Mycobacterium avium* subsp *paratuberculosis*.

Sheep are usually infected for at least two years before developing signs of the disease. Once they start to show signs, they usually deteriorate and die within six months. There is no cure. In Australia, death rates of around 10% are common in flocks **where OJD is not managed**.

Sheep may start shedding the disease and contaminating the environment a long time before they show signs of illness. The bacteria can live in the environment (soil) for years, especially in cool, moist conditions.

Merinos are more susceptible than British breed sheep. Sheep can become infected at any age.

A vaccine is available in Australia which virtually eliminates the clinical impact of the disease in areas where OJD is common. Sheep are given one vaccination at a cost of approximately \$2 per sheep.

More information on OJD is available from the NSW I&I website

<http://www.dpi.nsw.gov.au/agriculture/livestock/health/specific/sheep/ojd>.

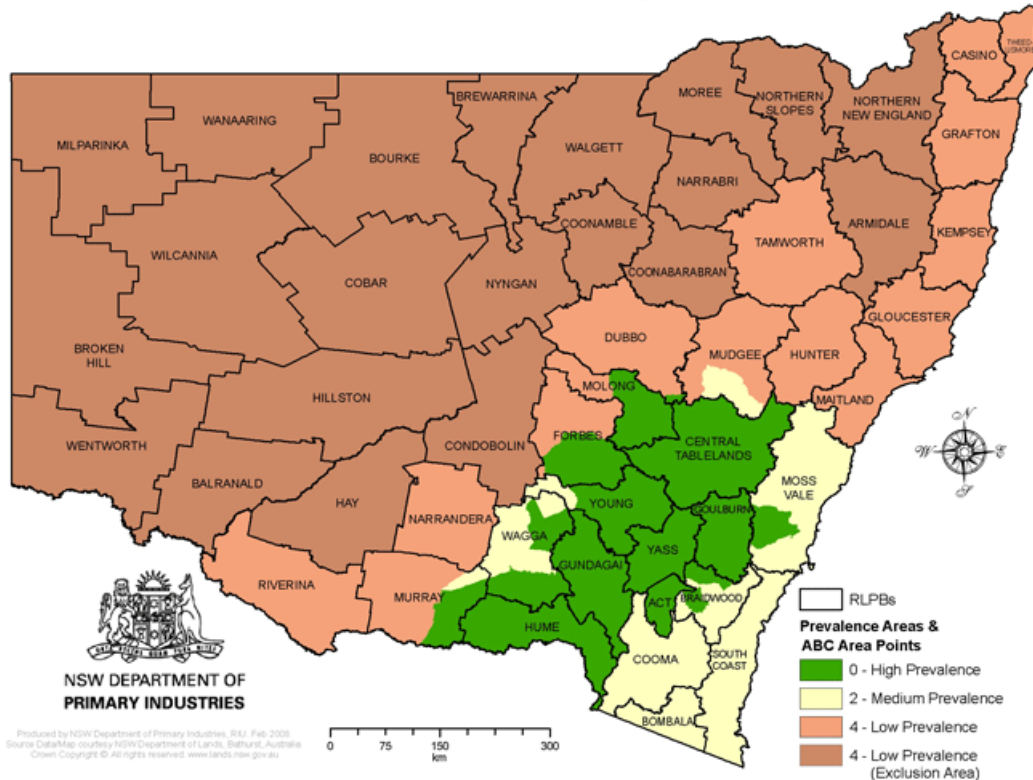
What is an OJD Exclusion Area?

In NSW there are two separate zonings for OJD. The first refers to "Prevalence Areas". Prevalence Areas are based on the number of sheep flocks in a region that are infected with OJD. As OJD is uncommon in the North West Livestock Health and Pest Authority, all of the Authority is part of the Low Prevalence Area.

The second zoning refers to "Exclusion Areas". OJD Exclusion Areas are created where sheep producers wish to be proactive in preventing OJD from entering their region. This is done by investigating any sheep introductions that appear to present a risk to the area's flocks. An OJD Exclusion Area may include part or all of a Livestock Health and Pest Authority, and is declared under the *Stock Diseases Act 1923*. Currently, all of the North West LHPA is an OJD Exclusion Area.

To be an OJD Exclusion Area, a region must be part of the Low Prevalence Area. The map on the next page illustrates the Prevalence Areas of NSW overlaid with the Exclusion Areas. **It is important to note that a region can be a Low Prevalence Area without also being an OJD Exclusion Area.**

NSW OJD Prevalence Areas and Exclusion Area for Implementation from 31 March 2008



Why establish an OJD Exclusion Area?

Reasons to establish and maintain an OJD Exclusion Area include:

1. To minimise the risk of OJD being introduced into the region.
2. To benefit from possible trade advantages through being an OJD Exclusion Area.

Let's examine these two reasons, and how they apply to the North West LHPA.

All of the previous Rural Lands Protection Board districts (Walgett, Moree, Narrabri and Northern Slopes) that now form the North West LHPA are Low Prevalence Areas and OJD Exclusion Areas. From the map above, it can be seen that the Tamworth area and Dubbo areas are in the Low Prevalence Area, but are **not** OJD Exclusion Areas. The Coonabarabran area **is** an OJD Exclusion Area. Table 1 below compares the current infection rates in these areas.

| RLPB region | LHPA | OJD Exclusion Area | % of flocks currently infected with OJD |
|-----------------|---------------|--------------------|---|
| Walgett | North West | Yes | 0.93 |
| Narrabri | North West | Yes | 0 |
| Moree | North West | Yes | 0 |
| Northern Slopes | North West | Yes | 0.39 |
| Coonabarabran | Central North | Yes | 1.69 |
| Tamworth | Central North | No | 0.67 |
| Dubbo | Central West | No | 1.06 |

Table 1: Flock prevalence of OJD in various regions of northwest NSW, as at Dec 2009.

These figures illustrate that Tamworth and Dubbo both have similar infection rates to much of the North West LHPA, yet they are not OJD Exclusion Areas. Conversely, the Coonabarabran region which is an OJD Exclusion Area, has a markedly higher rate of infection. This information suggests that while infection rates remain low in the North West LHPA, this may be unrelated to the region being declared an OJD Exclusion Area.

Let's move on to possible trade advantages.

A potential area for a trade advantage from being an OJD Exclusion Area is the ability to move store sheep into Queensland. Current entry requirements for Queensland¹ state that on the National Sheep Health Statement, store sheep (sheep not going either to slaughter or an approved feedlot) must either:

- a) Accumulate five points or more under the under the National Approach for Management of OJD.

OR

- b) They are from the exclusion zone of New South Wales and the property of origin contains only sheep born within the exclusion zone or introduced sheep that have accumulated five points as above.

Sheep from the Low Prevalence Area (4 points) but not an Exclusion Area must therefore gain an extra point under the National Approach for Management of OJD in order to satisfy entry requirements to Queensland (5 points). Note that this requirement **does not** apply to sheep consigned to slaughter or approved OJD feedlots.

There are some Studs that are currently able to utilise the Exclusion Area advantage to sell rams and ewes into Queensland while having only 4 points. Other Studs who have introduced sheep from outside the Exclusion Area gain the extra point by a once a year faecal test.

Consultation with Stock and Station Agents within the North West LHPA suggests that the movement of store sheep from the current Exclusion Area into Queensland is minimal.



As a separate matter, there have been claims within the human medicine world that OJD bacteria might also cause Crohn's Disease in humans. This link **has not** been scientifically proven. However OJD bacteria can be present in the muscles of infected sheep and prevention of contaminated meat from entering the food chain might become more important in coming years. If this were to occur, infected properties may be disadvantaged.

Criteria that must be met if an Exclusion Area is to be established and maintained.

As mentioned earlier, OJD Exclusion Areas are governed under the *Stock Diseases Act 1923*. The criteria for establishing and maintaining an Exclusion Area have recently been updated. **These criteria will be strictly enforced**, with non-complying areas having their Exclusion Area status revoked by NSW Industry & Investment².

An Exclusion Area must have:

1. A flock prevalence of infection of less than 0.8%, with no known clusters of infected flocks.
2. Clearly defined geographic boundaries.
3. **Strong local sheep industry support.**
4. An Operational Plan with a three year lifespan that is endorsed by the NSW Industry & Investment OJD Technical Panel.
5. Property Disease Management Plans to minimise the risk of the spread of infection in the Exclusion Area from flocks that are known or suspected to be infected with OJD.
6. An Annual Report submitted to the NSW OJD Coordinator and distributed to sheep producers within the Exclusion Area.
7. **Adequate resources to cover the costs of implementing and maintaining the Exclusion Area.**
8. A survey every three years to demonstrate continued local sheep industry support.

On a practical level, this means sheep producers will need to:

1. Indicate that they will support the establishment and maintenance of an OJD Exclusion Area.
2. May be required to pay a specific levy to resource the implementation and maintenance of the Exclusion Area program. Costs to be covered include staffing to administer the Exclusion Area (eg to check the Sheep Health Statements of all introduced sheep, following up risky introductions), laboratory testing costs of investigating risky sheep introductions, funds to support producers required to undertake OJD risk management programs. **These costs are currently estimated at \$86,535 per year, or approx \$120 per sheep producer in the North West Livestock Health and Pest Authority.**
3. Comply with the Operational Plan. This will involve responsibilities including:
 - Purchasing only low risk stock.
 - Submitting National Sheep Health Statements to the North West LHPA for ALL introduced sheep.
 - Reporting when they suspect disease.
 - Complying with and supporting LHPA staff in investigating any sheep introductions deemed a risk to the Exclusion Area.
 - Complying with Property Disease Management Plans in flocks known or suspected to be infected. This might also involve neighbours of the initial property investigated.

Under the *Stock Diseases Act 1923*, LHPA Stock Inspectors will have regulatory powers to enforce compliance with the Exclusion Area operational plan.

What would happen if we are no longer an OJD Exclusion Area?

Evidence presented in Table 1 suggests that the current Exclusion Area is having little effect on reducing the percentage of infected flocks in the Low Prevalence Area of northwest NSW. The Coonabarabran region which is currently an Exclusion Area has a flock prevalence of 1.69%. On the other hand, the Tamworth region which is not an Exclusion Area has a flock prevalence of 0.67%. The overall flock prevalence across the North West LHPA is 0.41%, and this is without the conditions of an Exclusion Area being strictly adhered to (for example, most sheep introductions are not being currently notified to the LHPA).

Some sheep producers may lose a trade advantage by not being able to sell store sheep into Queensland. However there are other means by which these producers can achieve 5 ABC points on the National Sheep Health Statement.

Opportunities may arise for sheep producers to source sheep from areas that are outside the Exclusion Area. If the Exclusion Area is maintained, any introductions from outside the Exclusion Area are discouraged thus limiting the buying options of many producers. This includes ram purchases. While it is certainly in the best interests of producers to buy prudently with regard to the OJD status of any sheep, sourcing sheep from a wider area is possible if the North West LHPA is not an Exclusion Area.

Where to from here?

Make sure you attend one of the meetings to occur throughout the North West LHPA in the last week of October. See attached information for details. Feedback from these meetings will be considered by the North West LHPA Board in November 2010. If there is sufficient industry support, a survey of sheep producers to quantify this support will occur. Without the support of sheep producers, the Board of the North West LHPA may decide to rescind the Exclusion Area status.

If you would like to express your support for, or comment on the Exclusion Area status in the North West LHPA but are unable to attend a meeting, please put your comments into writing and forward to Libby Read by any of the methods below.

Mail:
North West LHPA
Attention: DV Libby Read
PO Box 18
NARRABRI NSW 2390

Fax:
02 6792 1738

Email:
libby.read@lhpa.org.au

Would you like more information?

Contact your local office of the North West LHPA or email District Veterinarian Libby Read via libby.read@lhpa.org.au.

References

1. http://www.dpi.qld.gov.au/4790_9941.htm
2. Ovine Johne's Disease Exclusion Areas. NSW Industry & Investment. Policy number O-088. Version 1. Authorised date 11/06/2010.