



# primefacts

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## OJD abattoir monitoring

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Since it was found in Australia in 1980, ovine Johne's disease (OJD) 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.

Abattoir monitoring of sheep is a key component of the national management program for OJD.

The monitoring is jointly funded by the Sheepmeat Council of Australia and Australian Wool Producers. Reporting to producers is funded by Industry and Investment NSW (I&I NSW, formerly the Department of Primary Industries) and the Livestock Health and Pest Authorities.

### Abattoir monitoring for OJD in NSW

In NSW, monitoring occurs for part or all of the year in three major export abattoirs: Dubbo, Goulburn and Wallangara. It includes sheep randomly derived from all the OJD prevalence areas of the state.

### Benefits of monitoring for sheep producers

Abattoir monitoring data is used to develop and review prevalence areas. It also identifies infected flocks in the Low Prevalence Area and provides feedback to producers on the effectiveness of their management programs. Producers with negative monitoring results may be eligible to trade their sheep as having a lower risk of being infected with OJD.

### Consigning sheep to the abattoir

Sheep are consigned to an abattoir in various ways. Sheep may be bought by the abattoir in the paddock or in the saleyard (owned by the abattoir when killed), or may be consigned over the hooks (owned by producer when killed).

Each consignment is allocated a lot number by the abattoir. The lot number is usually allocated when the sheep are purchased or consigned.

### Abattoir terminology

At the abattoir a mob of sheep is killed as an identifiable group known as a '**line**'. The line may contain sheep from one or more lots. If the line is large, it may be split into multiple lines – '**split lines**'. These split lines may be killed over more than one day.

A line may also contain sheep from more than one vendor – this is known as an indirect or '**boxed**' line. Sheep may be boxed at any point from the farm gate to the abattoir yard. Boxing most commonly occurs at saleyards.

|                     | Direct consignment  | Boxed consignment  |
|---------------------|---------------------|--------------------|
| <b>Unsplit line</b> | Unsplit direct line | Unsplit boxed line |
| <b>Split line</b>   | Split direct line   | Split boxed line   |



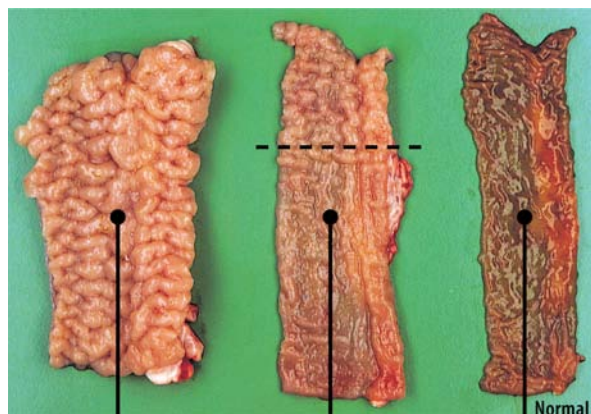
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## Signs of OJD at the abattoir

Sheep that are infected with OJD may show the following changes in their intestines:

- a thickened gut wall, particularly the ileum and ileocaecal valve,
- prominent mesenteric lymphatic vessels, and
- enlarged, pale lymph nodes.

## Intestinal lining of OJD affected sheep

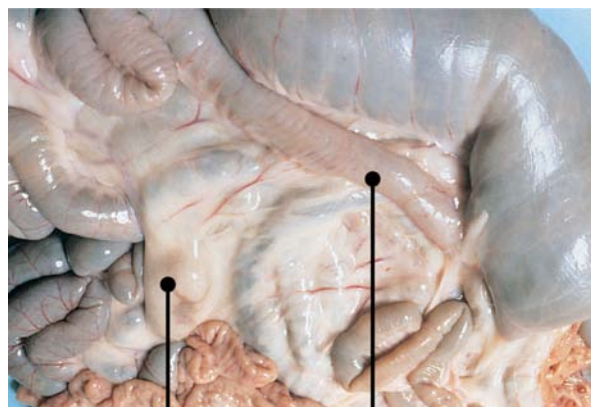


Prominent ridges in the severely affected section of the lower small intestine (left)

the defined edges of the lesion (centre); and

the relatively normal surface of the upper small intestine (jejunum) (right)

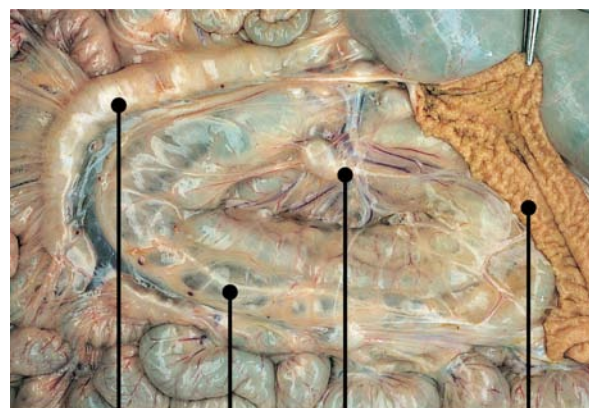
## Ileocaecal area of an OJD affected sheep



enlarged lymph nodes; and

thickened lower small intestine (ileum)

## Intestinal tract of an OJD affected sheep



Thickened lower small intestine

prominent lymphatic vessels in the membrane

enlarged lymph nodes; and

the raised ridges on the lining of the small intestine

## Actions at the abattoir

Trained Australian Quarantine Inspection Service (AQIS) meat inspectors visually examine intestines from lines of adult sheep (2 years or older). The inspectors do not have time to examine every sheep in a line. Only lines with 25 or more sheep are reported on.

If the sheep have lesions suggestive of OJD, the inspector collects samples from up to three sheep in a line. These samples are submitted to a laboratory for microscopic examination.

For each line inspected the following information is recorded:

- the lot number,
- the area from which the sheep originated,
- the serial number and property identification code (PIC) on the National Vendor Declarations (NVD),
- the vendor's name (most abattoirs)
- a sample of ear tag PICs,
- the abattoir's description of the class and age of the sheep,
- the number of sheep killed,
- the number inspected,
- the number with lesions suggestive of OJD, and
- the number sampled.

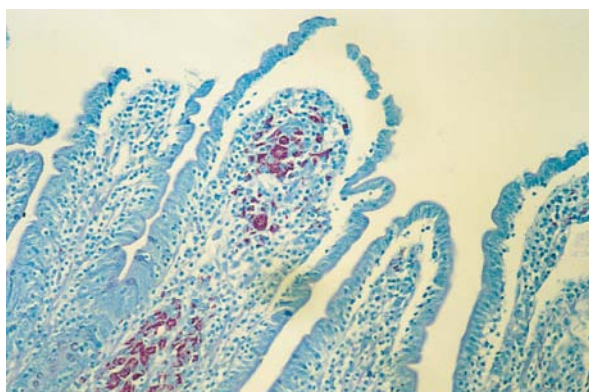
This information is sent to the National Sheep Health Monitoring Coordinator (SHM Coordinator)

## Laboratory confirmation of suspected lesions

Samples from suggestive lesions are examined by microscope at an approved laboratory.

The pathologist looks for the presence of cellular changes and bacteria that are consistent with infection by *Mycobacterium paratuberculosis*. If no typical cellular changes are present and bacteria are not found the result will be **negative**. The presence of both lesions and bacteria will result in a **positive** result. The presence of typical cellular change where no bacteria are found will result in an **inconclusive** result.

## *Mycobacterium paratuberculosis* bacteria in intestinal cells



The laboratory findings are recorded and reported to the SHM coordinator or their delegate.

Where the laboratory confirms OJD in a split line then all related split lines with lesions are recorded as positive by the SHM coordinator.

## Traceability

All sheep leaving a property must be identified by a National Livestock Identification System (NLIS) ear tag that includes the property identification code (PIC). The sheep must be accompanied by a National Vendor Declaration (NVD).

## Identifying who consigned sheep to the abattoir

The vendor(s) are identified from the abattoir records – including mandatory NVDs of direct consignments or post-sale summaries of boxed lines. The NVD accompanies each consignment of sheep and records the vendor details, the PIC of the consignment property and the ear tag PICs of the sheep. A small sample of ear tag PICs are noted before the heads are removed on the abattoir chain of direct consignments. This provides a handy cross check against the PICs recorded on the NVD.

The positive report can therefore relate to any of the individual sheep listed on the NVD of a direct line or any mob of sheep contributing to boxed lines.

## Reporting of surveillance results

Positive OJD abattoir monitoring reports are sent to the LHPA District Veterinarian (DV) for the area of the property of origin. The DV contacts the vendor(s) and provides further information on OJD including:

- risk assessment,
- management strategies, and
- advice on completing the SHS.

Negative surveillance reports are mailed out directly to producers on a quarterly basis.

## Apparent discrepancies in sheep numbers or the description of the sheep on the monitoring report

As forms such as the NVD may be completed prior to mustering or loading of the stock intended for sale, apparent discrepancies may arise between the information recorded on these forms and the information collected on the number of stock slaughtered.

Additional apparent discrepancies may arise relating to the description of the stock sold due to differences in the terminology used by the producer and the abattoir. For example: '6t+' is a common generic abattoir age class which may be composed solely of 4 year old sheep or could be a mix of age groups. Similarly the description 'e/w' can mean solely ewes, wethers or a mixture of both.

The DV will assist to assess the validity of the report and notify the SHM database manager of any significant anomalies.

## Requesting abattoir surveillance

A producer may request that their sheep be monitored at the abattoir using the form entitled '[Owner Request for a NSW OJD Abattoir Monitoring Report](#)'.

The form must be submitted to I&I NSW by:

- fax on 02 6938 1809, or
- email [abmon.nsw@industry.nsw.gov.au](mailto:abmon.nsw@industry.nsw.gov.au)

This form must be submitted at least 48 hours prior to slaughter.

Note: it is not possible to guarantee that an inspector will be available to monitor sheep on request.

## Requesting surveillance reports

A producer may request a report on sheep that they believe may have been monitored by submitting the 'Owner Request for a NSW OJD Abattoir Monitoring Report' form by:

- fax on 02 6938 1809, or
- email [abmon.nsw@industry.nsw.gov.au](mailto:abmon.nsw@industry.nsw.gov.au).

## Sampling and reporting on boxed (indirect)

Some saleyards traditionally draw sheep from the High or Medium Prevalence Areas and the analysis of data collected previously has demonstrated there is a very high probability that boxed (indirect) lines from these saleyards will be positive because the sheep are from higher risk areas. Therefore saleyards have been ranked to provide guidance to meat inspectors on monitoring and reporting of boxed lines.

- 'High' risk – saleyards that primarily source sheep from the High or Medium Prevalence Areas, e.g. Carcoar.
- Medium risk – saleyards that tend to source the majority of their sheep from the Low Prevalence Area, with a few sheep sourced from the High or Medium Prevalence Areas, e.g. Forbes, Dubbo, Wagga, Temora and Corowa.
- 'Low' risk – saleyards that source sheep almost exclusively from the Low Prevalence Area, including all saleyards in the Low Prevalence Area (other than Dubbo and Forbes), e.g. Narromine, Inverell, Armidale, Griffith.

Boxed (indirect) lines derived from medium or high risk saleyards are monitored but not sampled or traced.

Boxed (indirect) lines from low risk saleyards are monitored and sampled and the contributing vendors are identified through post-sale summaries or NVDs. If the line is positive all the contributing vendors will be notified and the DV will assist them to assess the risk that they contributed the infected sheep.

## Claiming assurance points from negative abattoir monitoring.

Negative monitoring reports may be used to accrue Assurance Based Credit (ABC) trading points in Category B of for the National SHS. The following explanation, copied from the SHS, defines how many ABC points you can claim, and for how long they are valid.

**Eligible for Abattoir 500 status** – 2 ABC points: at least 500 sheep, over 2 years of age, have been submitted to an abattoir in the past 24 months, in 1 or more lots, and have been examined and all found negative for OJD. The sheep must have been on the property for at least 2 years.

**Eligible for Abattoir 150 status** – 1 ABC point: at least 150 sheep, over 2 years of age, have been submitted to an abattoir in the past 12 months in 1 or more lots, and have been examined and all found negative for OJD. The sheep must have been on the property for at least 2 years.

Note: it is the responsibility of the producer to check their records and see if the sheep that have been monitored meet the eligibility criteria detailed on the SHS.

For more information go to [www.ojdinfo.nsw.gov.au](http://www.ojdinfo.nsw.gov.au)

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