



NATIONAL SHEEP HEALTH MONITORING PROJECT SNAPSHOT REPORT

2016

SNAPSHOT SUMMARY 2016

- 4,552,116 sheep inspected (Table 1)
- 21,332 lines inspected (Table 1)
- 7,211 PICs inspected (Table 1)
- The sheep industry incurred the greatest cost due to grass seed lesions in 2015 ⁽¹⁾ (Figure 1)

Table 1. Total number of sheep, properties (PICs) and lines inspected from each state in 2016

State	NSW	Qld	SA	Tas	Vic	WA	Total
No. of sheep inspected	907,831	21,925	1,754,087	141,214	1,142,427	157,038	4,552,116
No. of lines inspected	3334	82	10105	771	5015	2025	21,332
No. of PICs inspected	973	57	3101	307	1639	1134	7211

Objectives

- Monitor sheep for a range of significant animal health conditions which reduce productivity in the sheep value chain or can impact market access.
- Facilitate feedback to producers through state departments and the Livestock Data Link (LDL) about the diseases and conditions affecting their flock.
- Explore options for comprehensive and cost effective animal disease monitoring and surveillance system and post mortem inspection service.
- To provide accurate and timely animal health information as a driver for:
 - Further improvements in Australia's animal health status, and the management of human health risks
 - Maximising market access
 - Improving profitability
 - Informing future investment into research and development (R&D)
 - Enhancing productivity within the sheep value chain by improving the quality of product entering the supply chain and therefore reducing wastage.

Details

- Carcasses and viscera are examined grossly by certified meat inspectors. Laboratory confirmation for Ovine Johne's Disease (OJD) only.
- Presence or absence of pathology consistent with disease is recorded by National Sheep Health Monitoring Project (NSHMP) inspectors.
- Data collected by NSHMP is stored in the Endemic Disease Information System (EDIS), hosted by Animal Health Australia (AHA) on behalf of the stakeholders.
- Feedback from the NSHMP is returned directly to producers in NSW, QLD, Vic and SA. It is expected that national reporting of animal health feedback will commence through the LDL in 2017.
- This report contains a 'snapshot' of the health of the Australian sheep flock for the year 2016 using data collected through the NSHMP.
- For the purpose of this analysis the information has been obtained from direct (vendor consigned) and indirect (sale yard or mixed in transportation) lines. Ages of sheep are recorded as less than two years, older than two years or mixed.

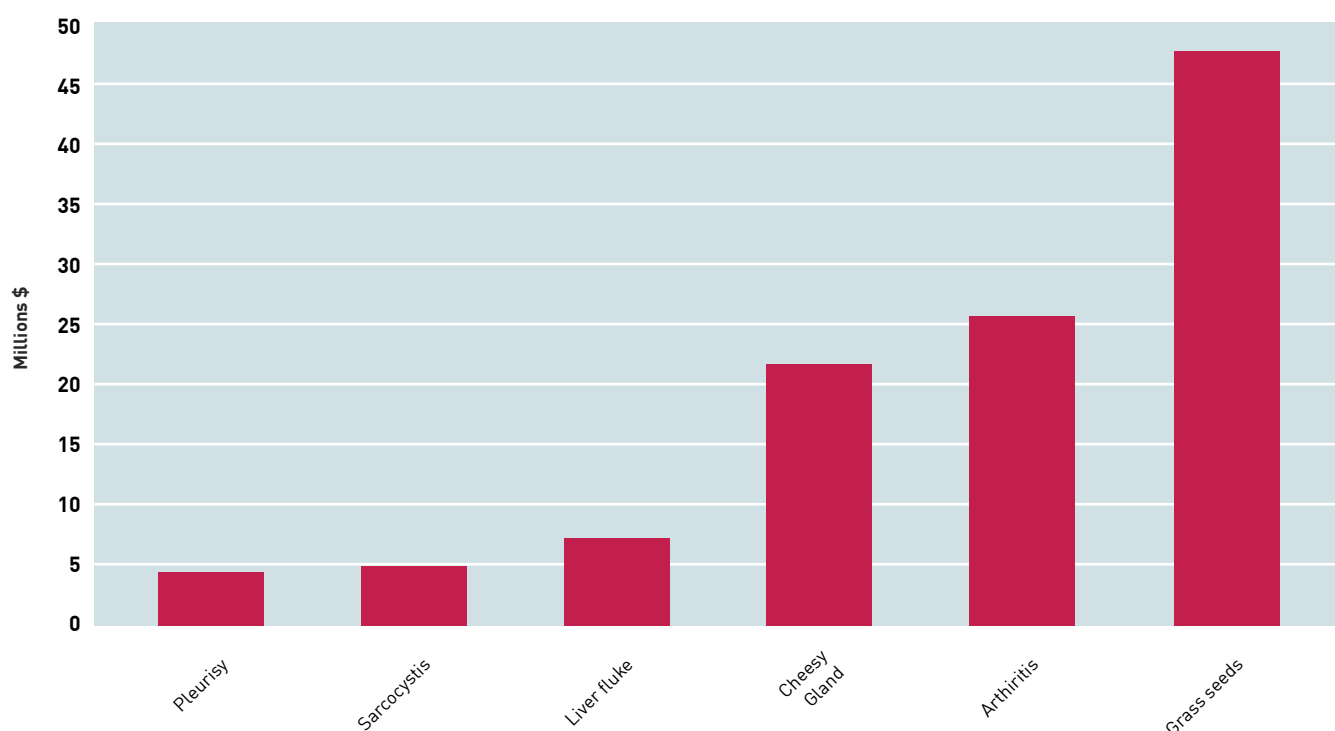


Figure 1. Monitored diseases causing highest cost to Australian sheep industry (estimated total production and processing costs 2015)



Project Funding and Governance

The NSHMP is funded by sheep meat and wool levies and is managed by Animal Health Australia (AHA) on behalf of the Sheepmeat Council Australia (SCA), Woolproducers Australia (WPA) in consultation with the Sheep Health Project Steering Committee (SHPSC).

Arthritis

- **Cause:** bacterial infection of joints usually from either bacteria entering umbilical cord at birth or entering wounds at marking/mulesing.
- **On-farm impact:** lameness and reduced growth rates.
- **Significance at abattoir:** trimming of affected joints.
- **Prevention:** hygienic and skilled marking/mulesing practices and vaccination.

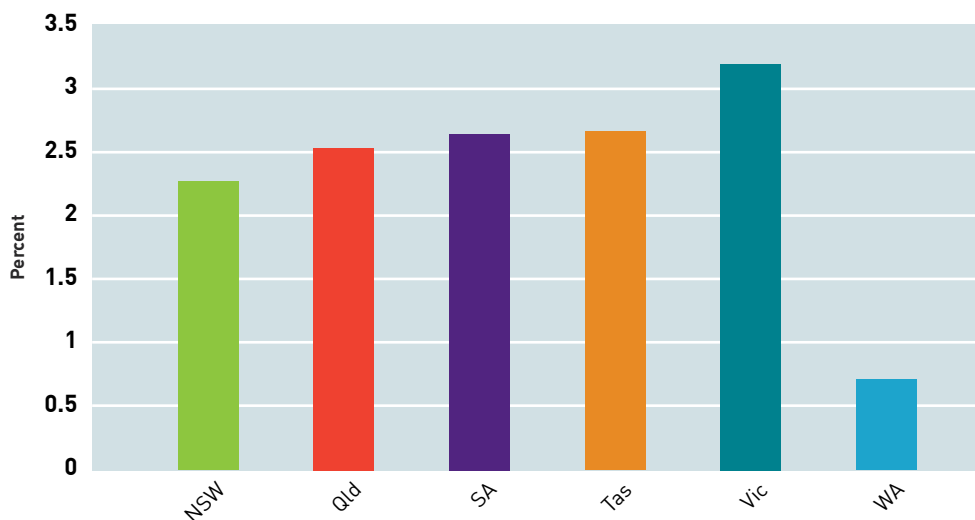


Figure 2. Overall percentage of inspected sheep carcasses with arthritis for each state in 2016



Image from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

Bladder worm

- **Cause:** infective cysts from the dog tapeworm *Taenia hydatigena* that localize to the liver and abdominal cavity of sheep.
- **On-farm impact:** rarely cause ill thrift in sheep but may predispose to Black disease.
- **Significance at abattoir:** trimmed or condemned livers.
- **Prevention:** deworm farm dogs, avoid feeding fresh raw meat to dogs, control fox and wild dog populations and vaccinate against clostridial diseases to prevent Black disease.

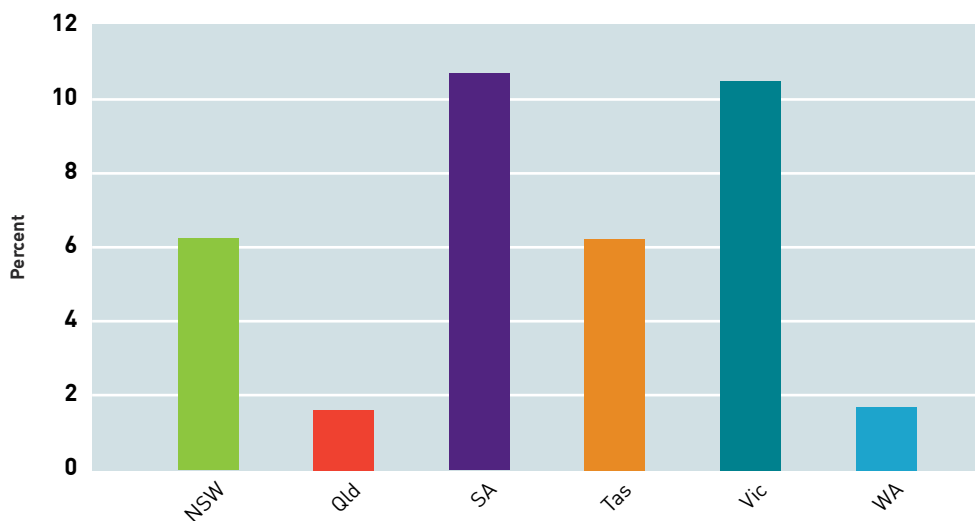


Figure 3. Overall percentage of inspected sheep carcasses with bladder worm for each state in 2016

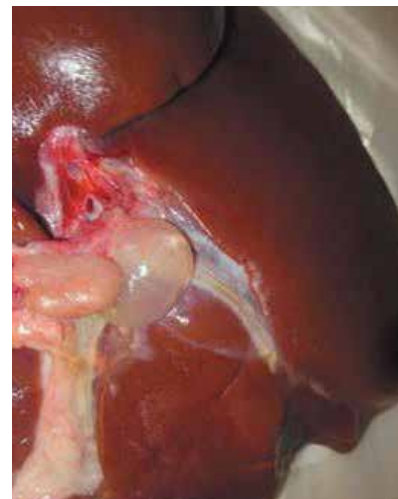


Image provided by the Primary Industries and Regions South Australia (PIRSA)

Cheesy gland

- **Cause:** bacterial disease causing lymph node abscesses throughout the body, usually a problem for older sheep.
- **On-farm impact:** decreased wool production, wool contamination, chronic infection leading to ill thrift, emaciation and decreased reproductive performance.
- **Significance at abattoir:** increased carcase trimming and decreased carcase weight.
- **Prevention:** vaccinate, hygienic marking and shearing practices.

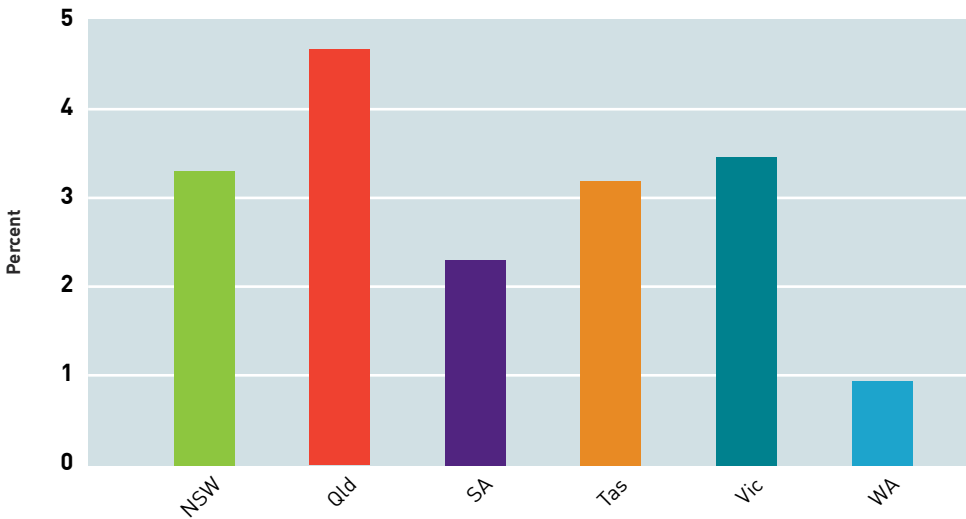


Figure 4. Overall percentage of inspected sheep carcasses with cheesy gland for each state in 2016

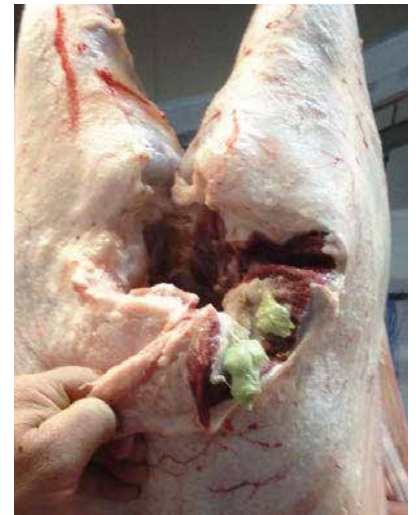


Image provided by Zoetis

Dog bites

- **Cause:** unmuzzled dogs with access to sheep.
- **On-farm impact:** production losses, infection and septicaemia in severe cases.
- **Significance at abattoir:** trimming to the nearest joint resulting in a significant reduction in dressed weight.
- **Prevention:** muzzle all dogs that come into contact with sheep and control wild dog populations.

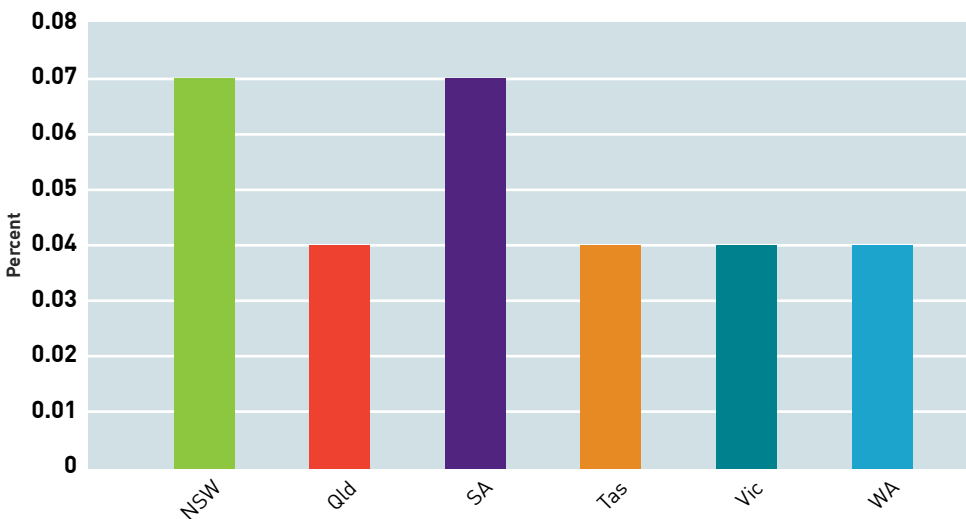


Figure 5. Overall percentage of inspected sheep carcasses with dog bite lesions for each state in 2016



Image provided by MINTRAC

Grass seeds

- **Cause:** spear, brome, barley, silver and needle grasses embedded in the carcase.
- **On-farm impact:** weaner ill thrift, infections/death, decreased wool production and decreased wool value.
- **Significance at abattoir:** carcase trimming, decreased meat and skin value.
- **Prevention:** pasture and animal management.

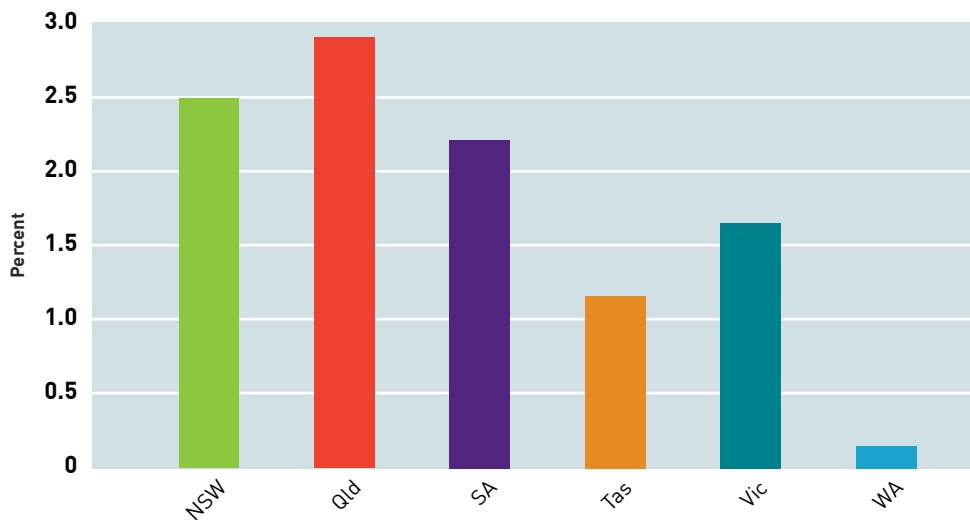


Figure 6. Overall percentage of inspected sheep carcasses with grass seed lesions for each state in 2016



Image provided by the Primary Industries and Regions South Australia (PIRSA)

Hydatids

- **Cause:** large cysts from the dog hydatid tapeworm (*Echinococcus granulosus*) that develop in the liver and lungs.
- **On-farm impact:** usually little or no impact on sheep health and production.
- **Significance at abattoir:** condemned offal and trimmed carcasses.
- **Prevention:** deworm farm dogs, avoid feeding fresh raw meat to dogs, control fox and wild dog populations.

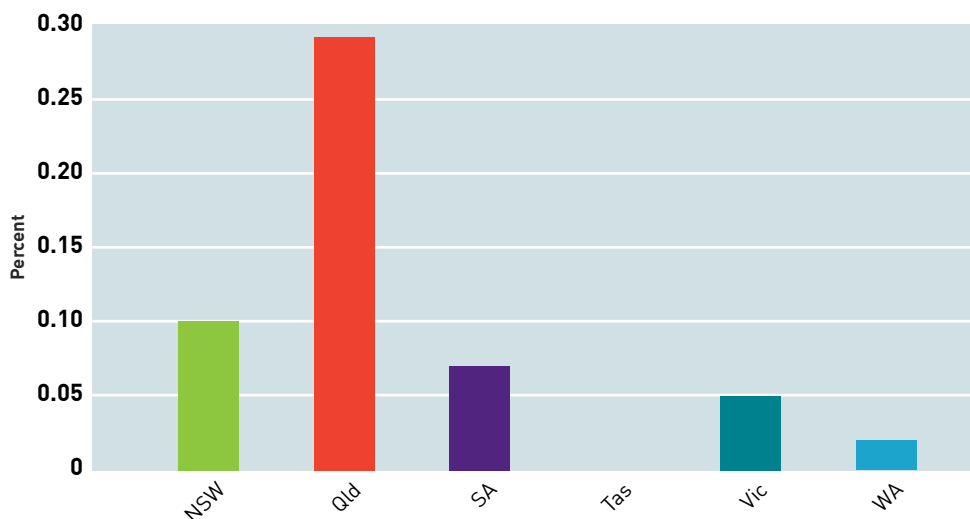


Figure 7. Overall percentage of inspected sheep carcasses with hydatid infection for each state in 2016



Image provided by Michelle Dennis from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

Knotty gut

- **Cause:** larval stage of the nodule worm (*Oesphagostomum columbianum*) cause lesions on the intestines.
- **On-farm impact:** heavy infections can cause diarrhoea. Usually in younger animals.
- **Significance at abattoir:** lesions on the intestines render them unusable as sausage casings.
- **Prevention:** seasonal drench.

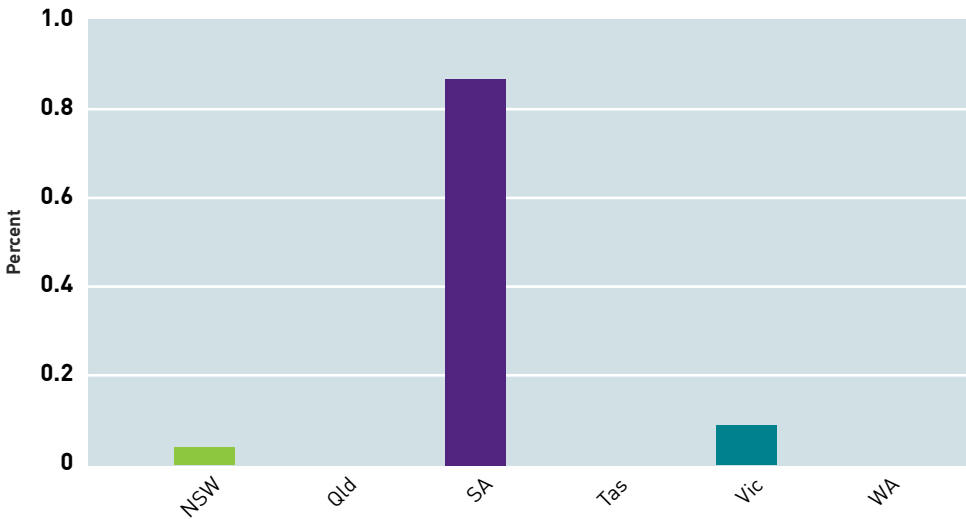


Figure 8. Overall percentage of inspected sheep carcasses with knotty gut for each state in 2016



Image provided by Gerald Marcus from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

Liver fluke

- **Cause:** flatworm parasites that infect sheep and cattle.
- **On-farm impact:** poor growth rate, decreased wool production and can predispose to Black disease.
- **Significance at abattoir:** liver condemned.
- **Prevention:** flukicide drench and vaccinate against clostridial diseases to prevent Black disease.

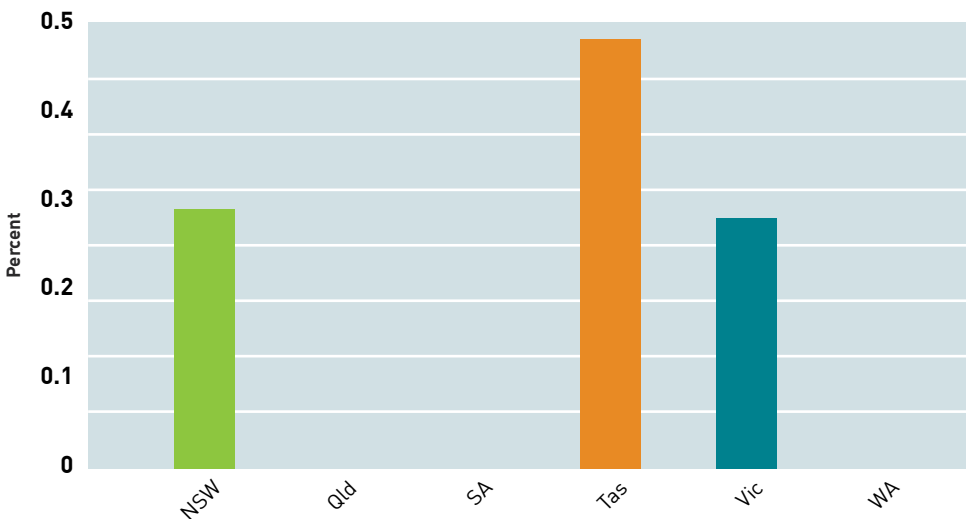


Figure 9. Overall percentage of inspected sheep carcasses with liver fluke for each state in 2016



Image provided by the Primary Industries and Regions South Australia (PIRSA)

Pneumonia and pleurisy

- **Cause:** pneumonia is caused by infection with a bacteria or a virus. In severe cases it can extend to the outer layer of the lung causing pleurisy.
- **On-farm impact:** production losses.
- **Significance at abattoir:** trimming of the ribs including the valuable rack.
- **Prevention:** minimise stress, provide adequate nutrition and apply good husbandry practices.

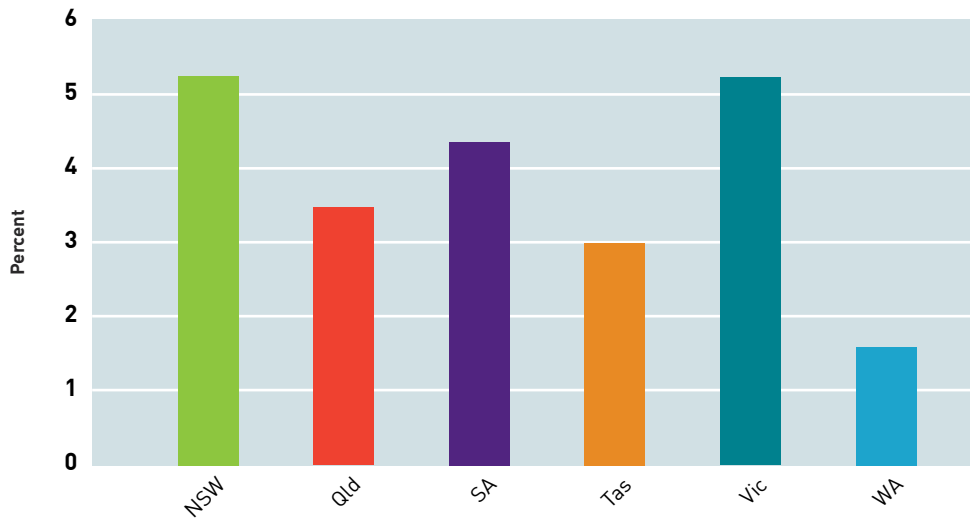


Figure 10. Overall percentage of inspected sheep carcasses with pleurisy for each state in 2016



Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

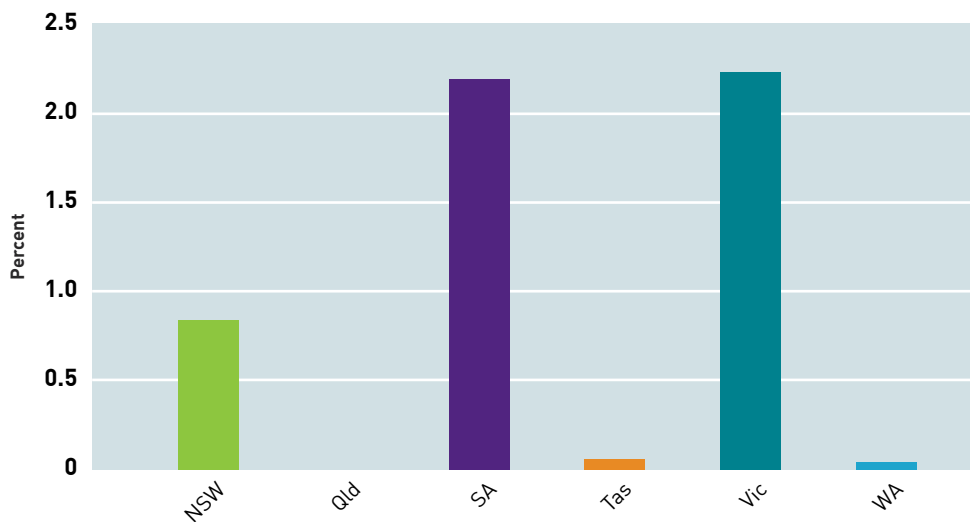


Figure 11. Overall percentage of inspected sheep carcasses with pneumonia for each state in 2016



Image provided by Nick Sangster from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

Ovine Johne's disease

- **Cause:** sheep strain of bacterium (*Mycobacterium avium paratuberculosis*), causing thickening of intestinal wall and reduced nutrient absorption.
- **On-farm impact:** severe wasting and death.
- **Significance at abattoir:** reduced carcass weight.
- **Prevention:** vaccination and careful introduction of new sheep onto property.

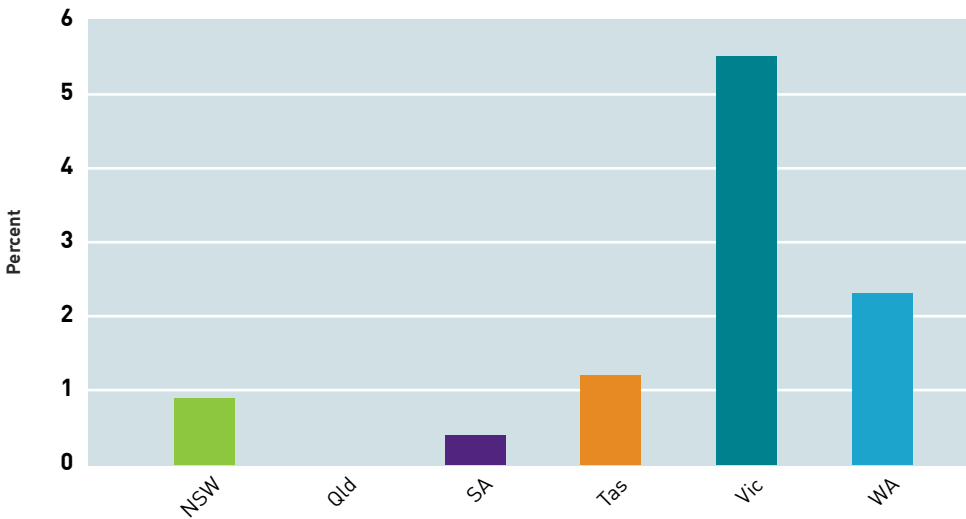


Figure 12. Percentage of inspected lines infected with Johne's disease for each state in 2016, for sheep over 2 years of age.



Image provided by Animal Health Australia

Sarcocystis

- **Cause:** a parasite which is shed in cat faeces and consumed by sheep localising to muscles.
- **On-farm impact:** no impact on sheep health and production.
- **Significance at abattoir:** carcasses trimmed and condemned if heavily infected.
- **Prevention:** feral cat control.

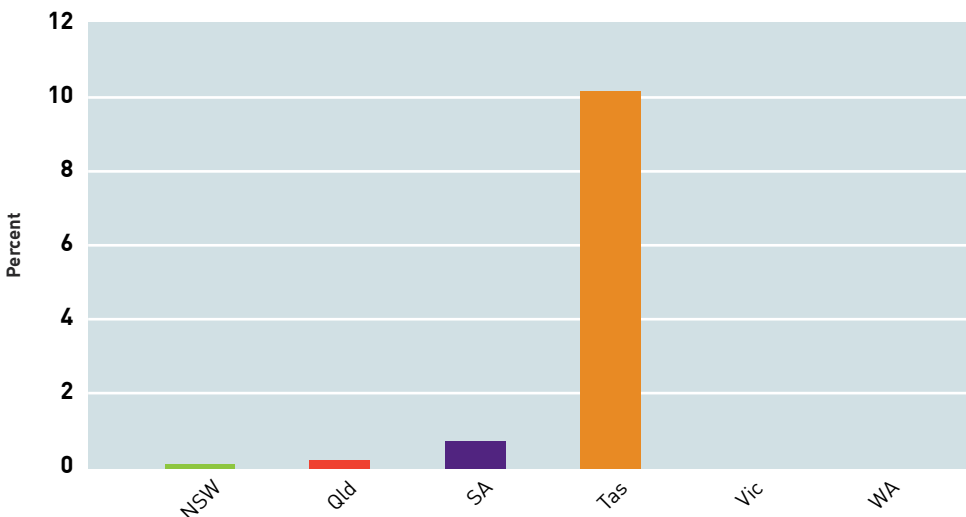


Figure 13. Overall percentage of inspected sheep carcasses with sarcocystis for each state in 2016



Image provided by the Primary Industries and Regions South Australia (PIRSA)

Sheep measles

- **Cause:** infected cysts from dog tapeworm *Taenia ovis*, found in muscles of sheep and goats.
- **On-farm impact:** no impact on sheep health and production.
- **Significance at abattoir:** trimming, downgrading and condemnation at abattoirs.
- **Prevention:** deworm farm dogs, avoid feeding fresh raw meat to dogs, control fox and wild dog populations.

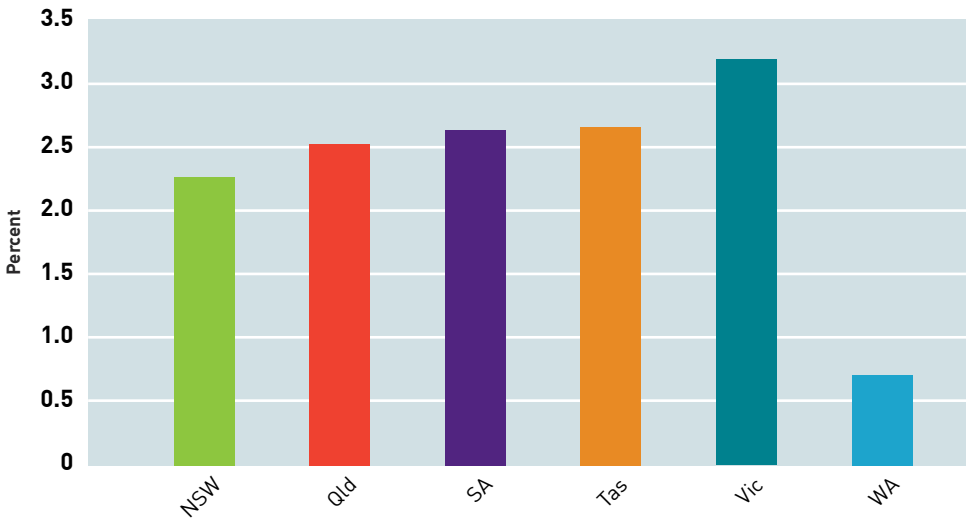


Figure 14. Overall percentage of inspected sheep carcasses with sheep measles for each state in 2016

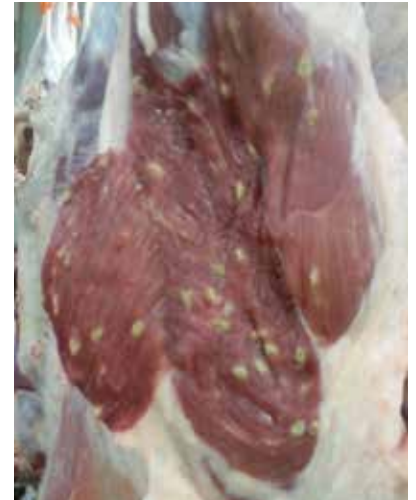


Image provided by the Primary Industries and Regions South Australia (PIRSA)

Vaccine lesions

- **Cause:** incorrect technique, poor hygiene or using a contaminated vaccine. The injection of a small amount of bacteria with the vaccine results in infection which can lead to abscess formation.
- **On-farm impact:** decreased production.
- **Significance at abattoir:** trimming or carcass condemnation.
- **Prevention:** correct vaccination technique.

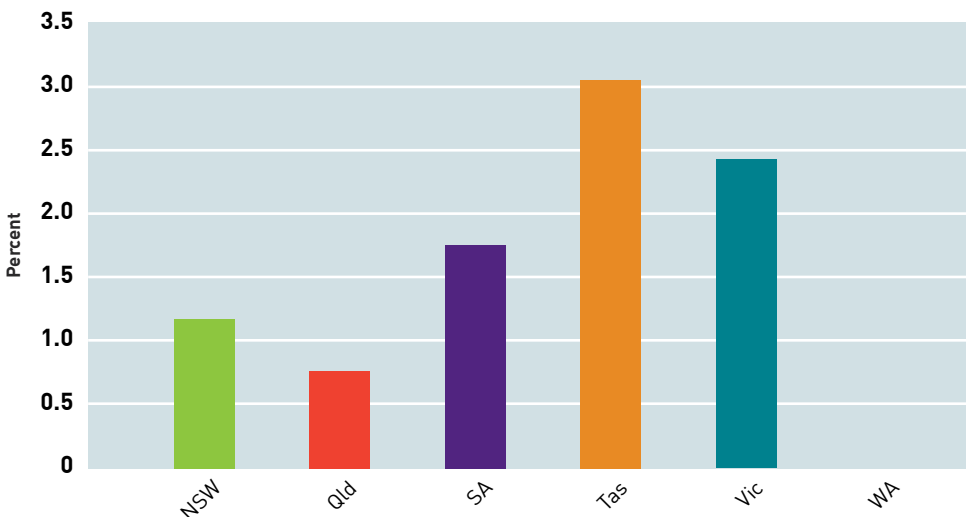


Figure 15. Overall percentage of inspected sheep carcasses with vaccine lesions for each state in 2016



Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney.

State contacts

STATE	COORDINATOR	ORGANISATION	NUMBER
QLD	Sandra Adsett	Department of Agriculture and Fisheries	07 4688 1470
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Industry contacts

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