NATIONAL SHEEP HEALTH MONITORING PROJECT

SNAPSHOT REPORT

2017

animalhealth AUSTRALIA

SNAPSHOT SUMMARY 2017

- 15 abattoirs across the country
- 5,443,140 sheep inspected
- Over 22,000 lines inspected
- 20 animal health conditions

Table 1. Total number of sheep, properties (PICs) and lines inspected from each state in 2017

State	NSW	Qld	SA	Tas	Vic	WA	Total
No. of sheep inspected	1,025,781	24,759	2,084,836	369,037	938,886	999,841	5,443,140
No. of lines inspected	3,717	74	9,217	2,469	3,828	3,006	22,311
No. of PICs inspected	1,019	48	2,780	577	1,227	1,359	7,010

Front cover by Taryn Mokotupu

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 occurring in 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 chain therefore reducing wastage.

Details

- Carcasses and viscera are examined grossly by certified meat inspectors. Laboratory confirmation is made only for ovine Johne's disease (OJD).
- Presence or absence of pathology consistent with disease is recorded by 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.
- All producers now have online access to feedback via the LDL, using their National Livestock Identification System (NLIS) account. More information is at: www.mla.com.au/research-and-development/livestock-data-link
- This report contains a 'snapshot' of the health of the Australian sheep flock for the year 2017 using data collected through the NSHMP for 14 conditions.
- 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.

Project Funding and Governance

The NSHMP is funded by sheep meat and wool levies and is managed by AHA on behalf of the Sheep Producers Australia (SPA), WoolProducers Australia (WPA) in consultation with the Sheep Health Project Steering Committee (SHPSC).

An additional inspection is carried out in South Australia through the Enhanced Abattoir Surveillance program, funded by the South Australian Sheep Industry Fund.

Arthritis

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

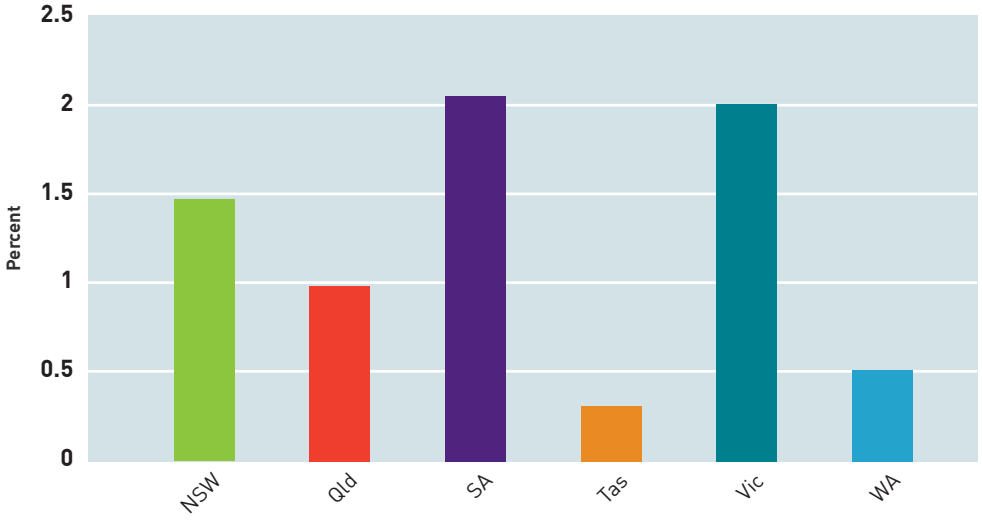

Figure 1. Overall percentage of inspected sheep carcasses with arthritis for each state in 2017

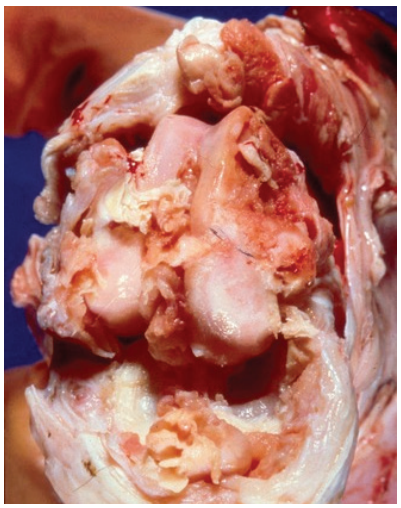

Image from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

Bladder worm

- **Cause:** infective cysts from the dog tapeworm (*Taenia hydatigena*) that localise 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:** de-worm farm dogs, avoid feeding fresh raw meat to dogs, control fox and wild dog populations and vaccinate against clostridial diseases to prevent Black disease.

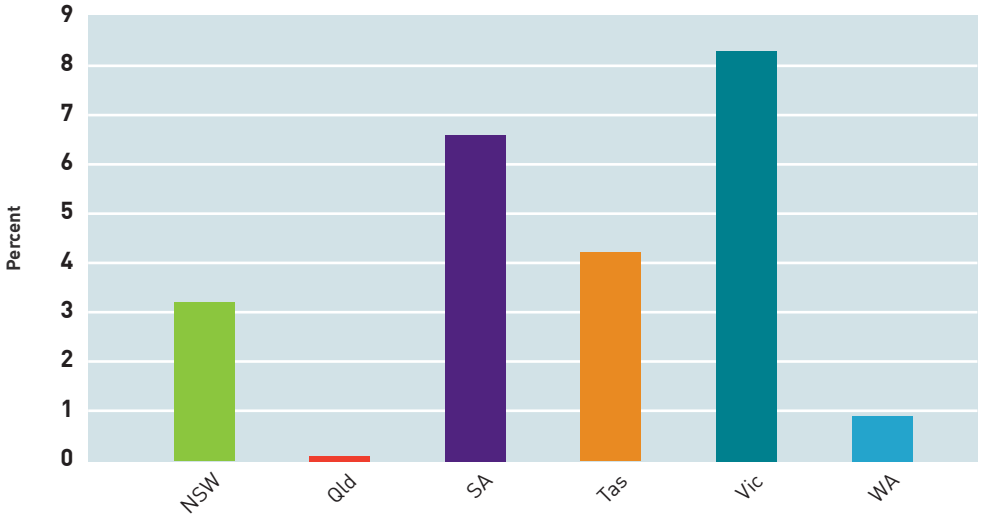

Figure 2. Overall percentage of inspected sheep carcasses with bladder worm for each state in 2017

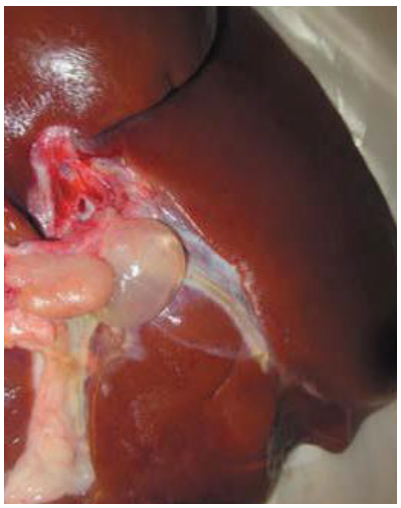

Image provided by the Primary Industries and Regions South Australia (PIRSA)

Cheesy gland

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

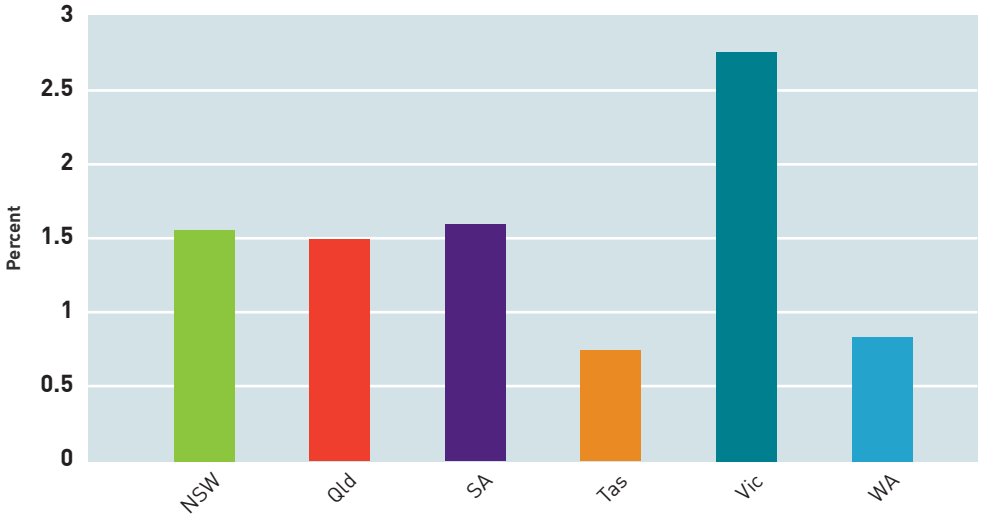

Figure 3. Overall percentage of inspected sheep carcasses with cheesy gland for each state in 2017

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.

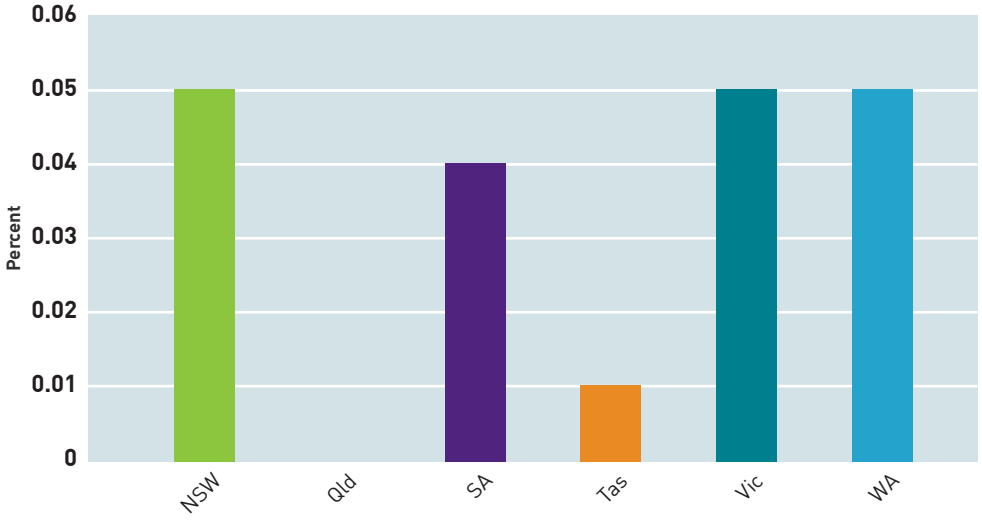

Figure 4. Overall percentage of inspected sheep carcasses with dog bite lesions for each state in 2017

Image provided by MINTRAC

Grass seeds

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

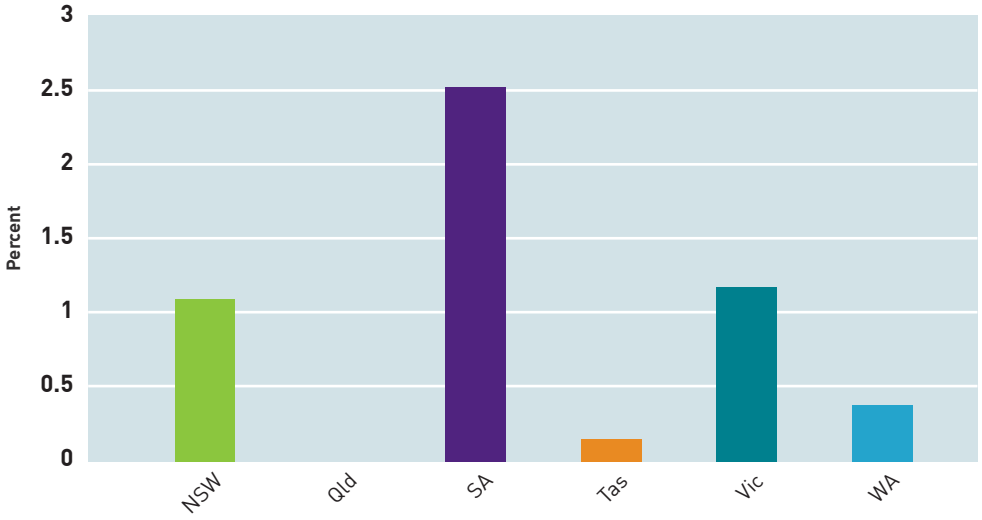

Figure 5. Overall percentage of inspected sheep carcasses with grass seed lesions for each state in 2017

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

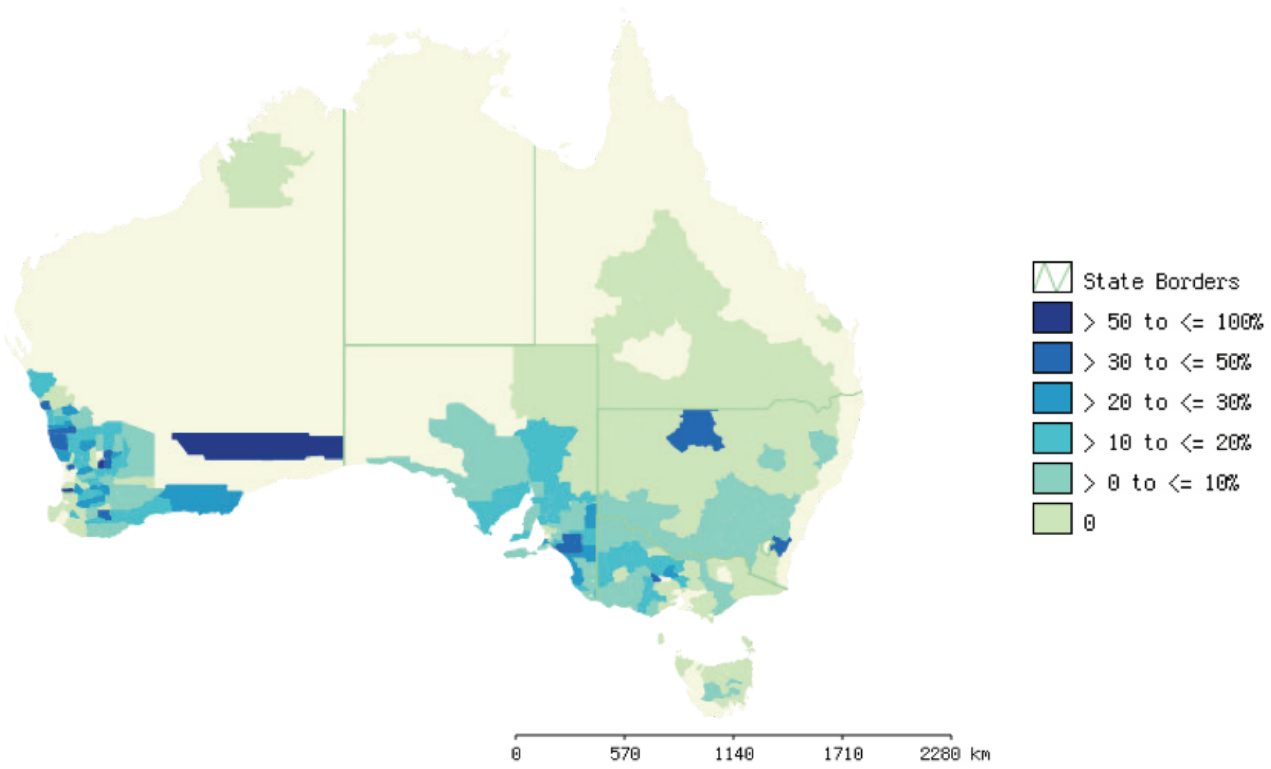

Figure 5b. Percentage of infected PICs by Local Goverment Area (LGA) with grass seed lesions for 2017

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**: de-worm farm dogs, avoid feeding fresh raw meat to dogs, control fox and wild dog populations.

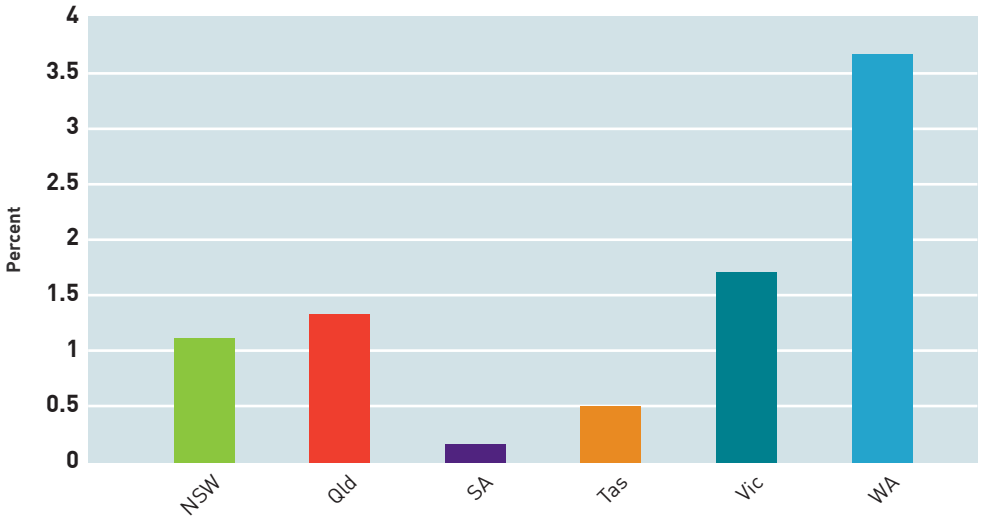

Figure 6. Percentage of inspected lines with at least one infected animal in 2017

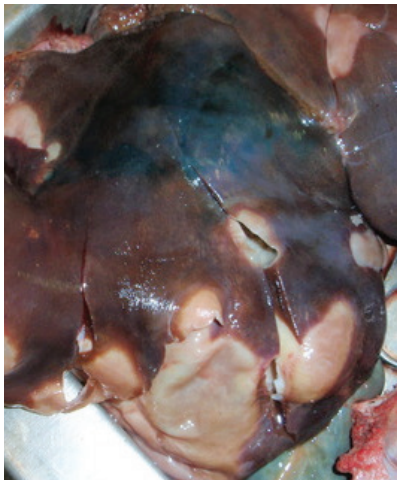

Image provided by Michelle Dennis from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

Knotty gut

- **Cause**: larval stage of the nodule worm (*Oesphagostomum columbianum*) causes 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.

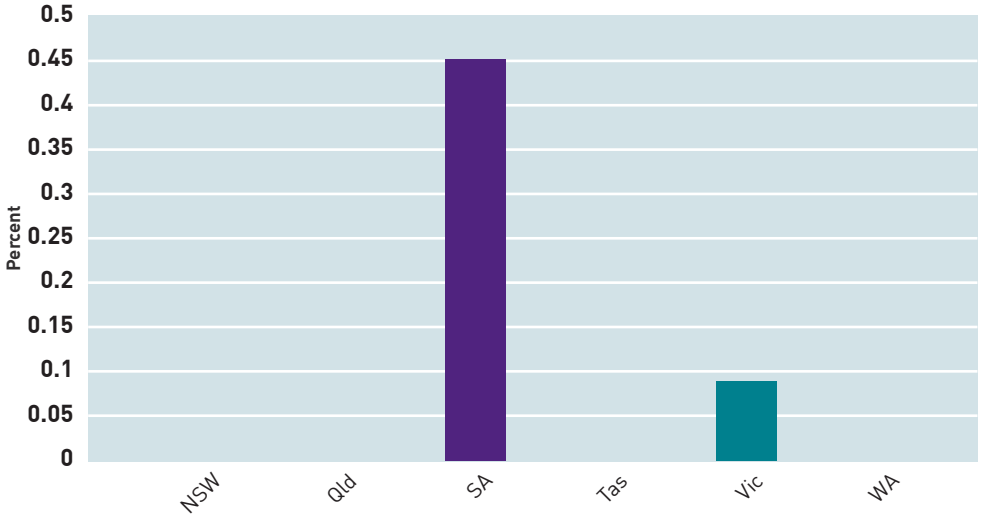

Figure 7. Overall percentage of inspected sheep carcasses with knotty gut for each state in 2017

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 potential predisposition to Black disease.
- **Significance at abattoir**: liver condemned.
- **Prevention**: flukicide drench and vaccination against clostridial diseases to prevent Black disease.

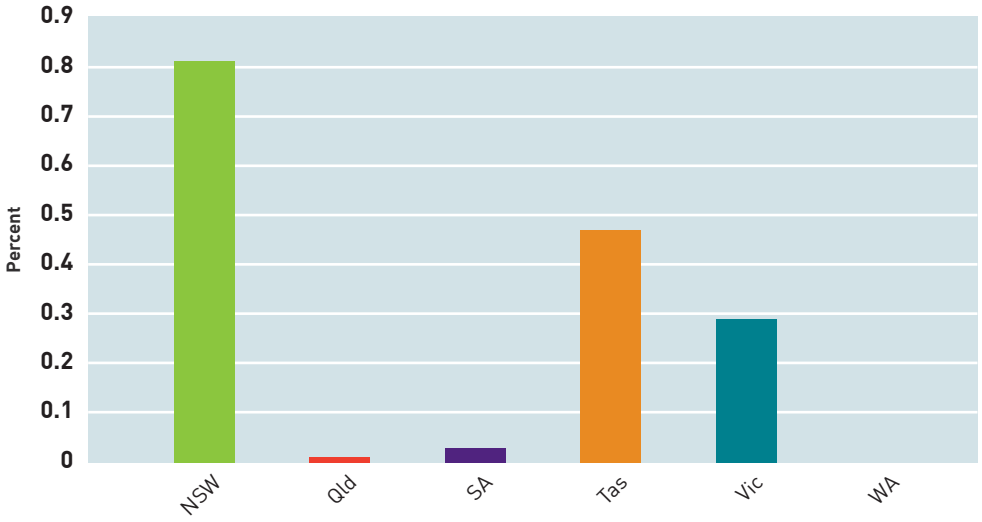

Figure 8. Overall percentage of inspected sheep carcasses with liver fluke for each state in 2017

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

Lungworm

- **Cause**: ingestion of the lungworm (*Mulleurius capillaris*) that develop in the tissue of the lungs. This species of lungworm has a lifecycle that includes snails, and is different from the one that inhabits the bronchi.
- **On-farm impact**: effect not recognised.
- **Significance at abattoir**: condemnation of the lungs.
- **Prevention**: limit exposure to pasture contaminated with the snail intermediate host. In cropping areas, implement a vigorous control program for the snail.

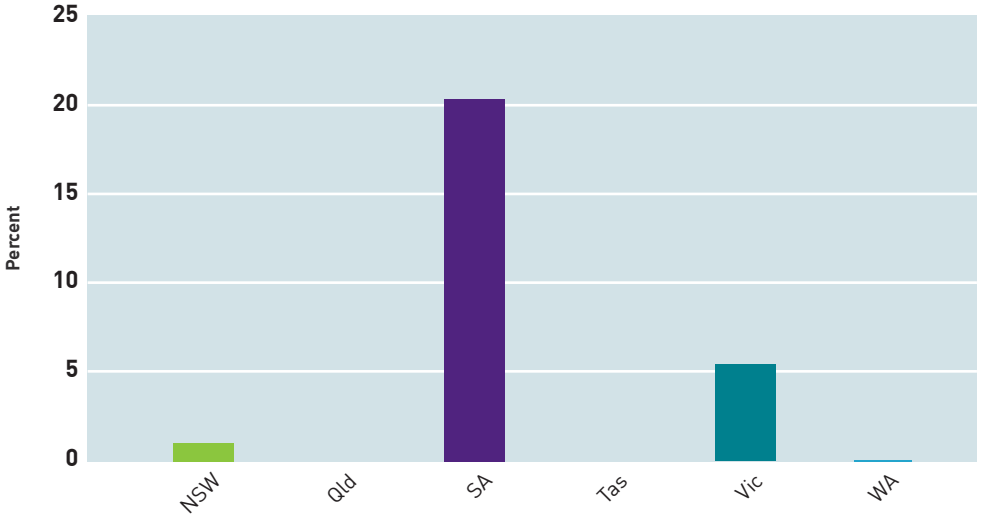

Figure 9. Overall percentage of inspected sheep carcasses with lungworm for each state in 2017

Image provided by Robert Suter

Pleurisy and Pneumonia

- **Cause**: pneumonia is caused by infection with a combination of bacteria and viruses. 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 application of good husbandry practices.

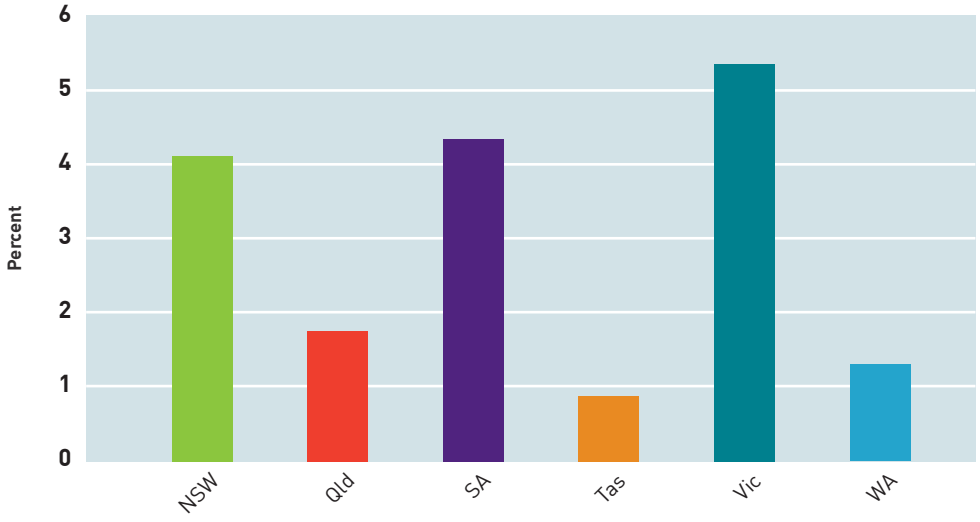

Figure 10. Overall percentage of inspected sheep carcasses with pleurisy for each state in 2017

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

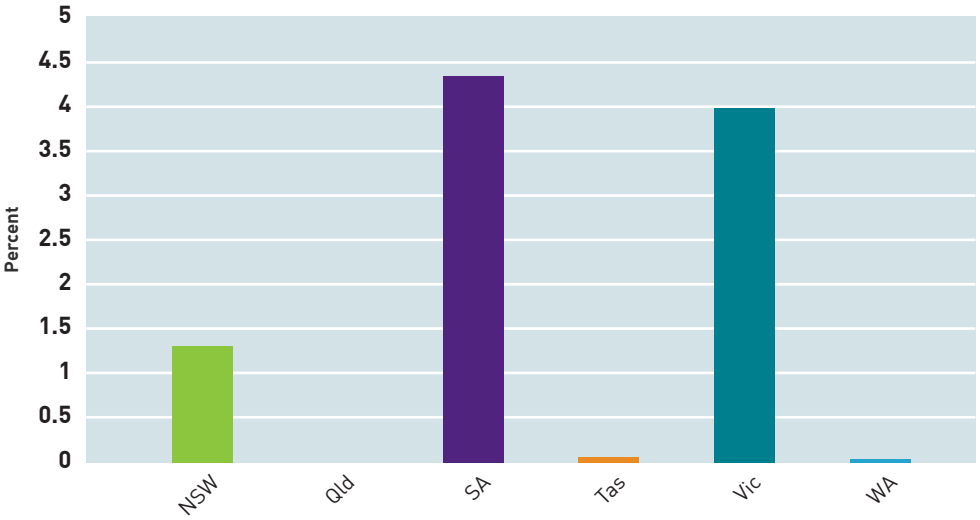

Figure 11. Overall percentage of inspected sheep carcasses with pneumonia for each state in 2017

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

Sarcocystis

- **Cause**: a parasite which is shed in cat faeces and consumed by sheep localising in the 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.

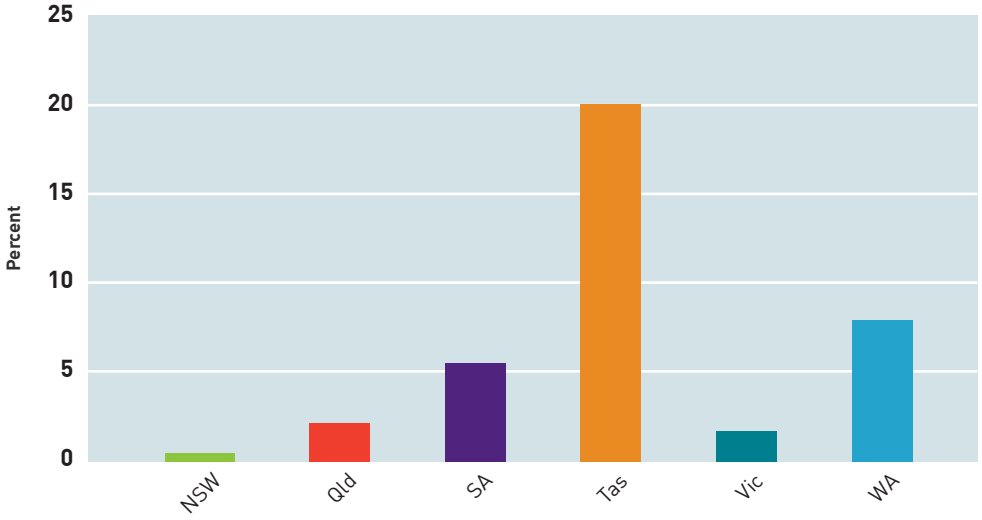

Figure 12. Overall percentage of inspected PICs with at least one infected animal for each state in 2017

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**: de-worm farm dogs, avoid feeding fresh raw meat to dogs, control of fox and wild dog populations.

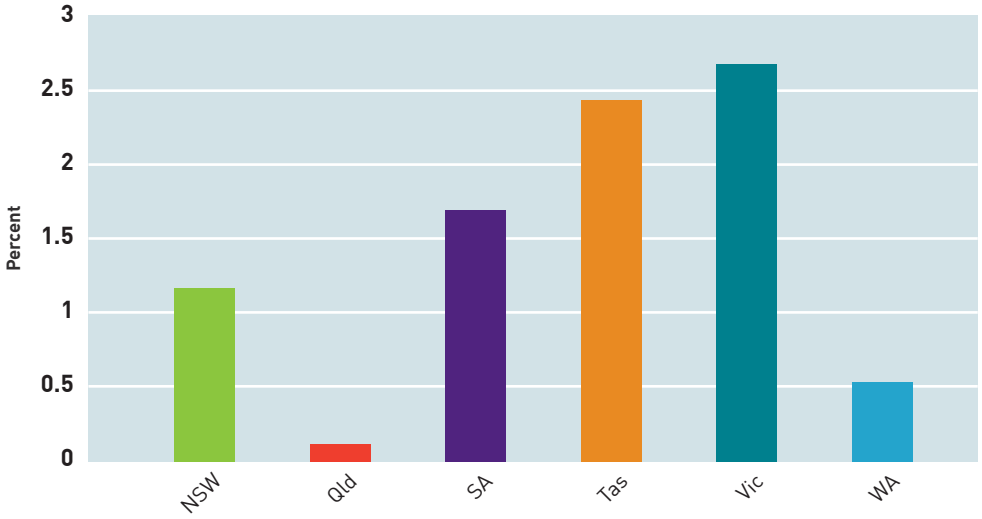

Figure 13. Overall percentage of inspected sheep carcasses with sheep measles for each state in 2017

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

Vaccine lesions

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

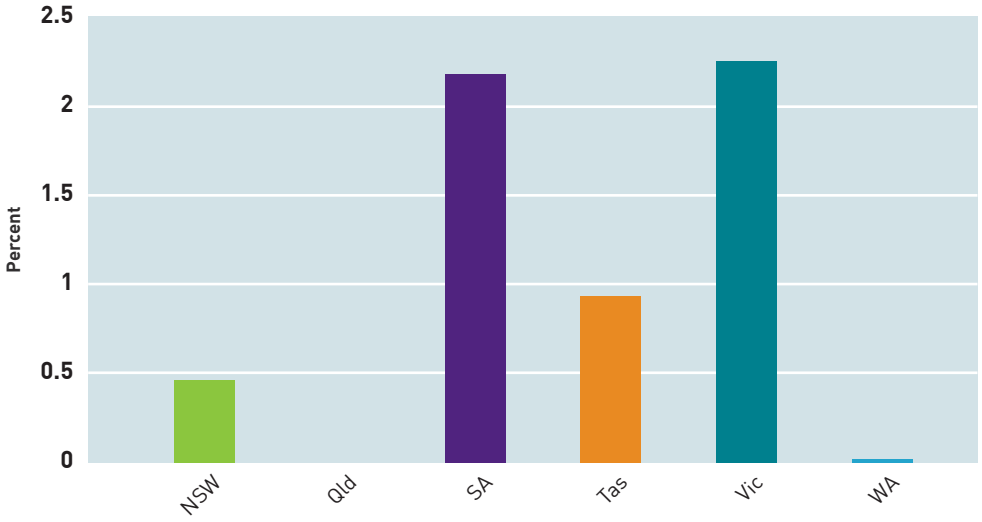

Figure 14. Overall percentage of inspected sheep carcasses with vaccine lesions for each state in 2017

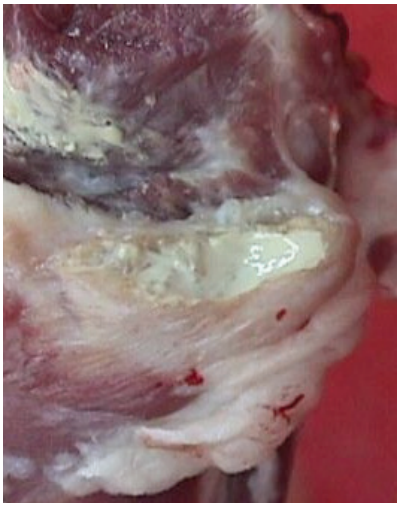

Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

State contacts

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TAS	Dr Rowena Bell	Department of Primary Industries, Parks, Water and Environment, Tasmania	(03) 6777 2135
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