NATIONAL SHEEP HEALTH MONITORING PROJECT

SNAPSHOT REPORT

2018

animalhealth AUSTRALIA

SNAPSHOT SUMMARY 2018

- 12 abattoirs across the country
- 8,204,241 sheep inspected
- Over 37,000 lines inspected
- 20 animal health conditions monitored

Table 1. Total number of sheep, properties (PICs) and lines inspected from each state in 2018

	NSW	Qld	SA	Tas	Vic	WA	Total
No. of sheep inspected	3,620,448	162,543	1,892,794	505,730	940,458	1,082,268	8,204,241
No. of lines inspected	15,501	660	9,874	3,381	4,049	3,753	37,218
No. of PICs inspected	2,550	207	2,998	541	1,359	1,426	9,081

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 for ovine Johne's disease (OJD) only.
- Presence or absence of pathology consistent with disease is recorded by meat inspectors for the National Sheep Health Monitoring Project (NSHMP).
- 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 2018 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 and managed by PIRSA.

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, carcasses are condemned if four or more joints are affected.
- **Prevention**: hygienic and skilled marking/mulesing practices and vaccination. Docking tails at a suitable length of three or more coccygeal vertebrae.

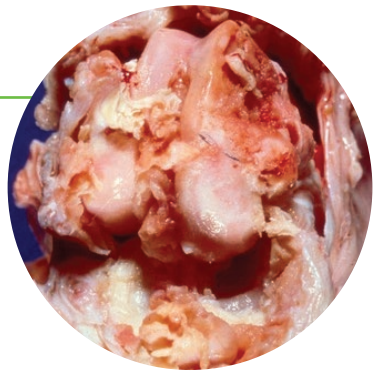

Image from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

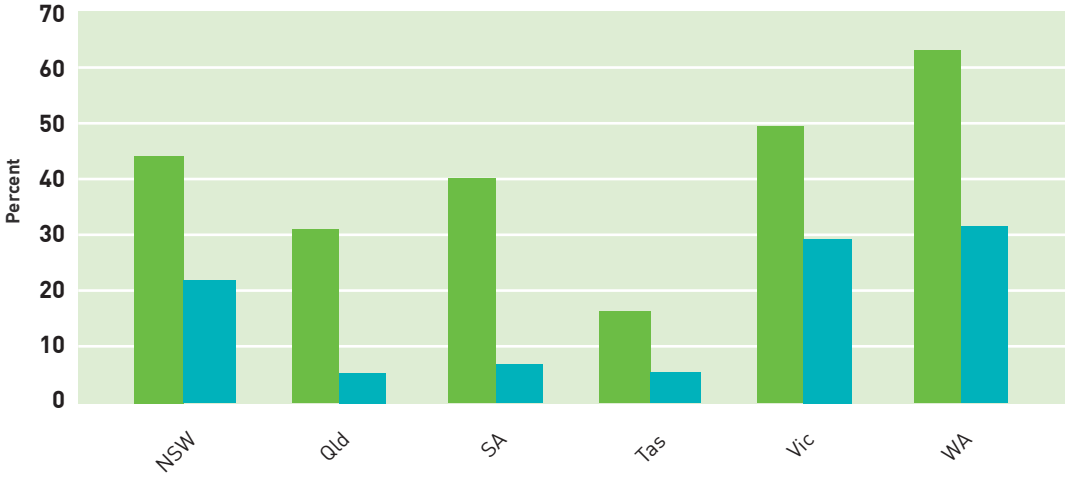

Figure 1a. Percentage of inspected lines with at least one infected animal in 2018

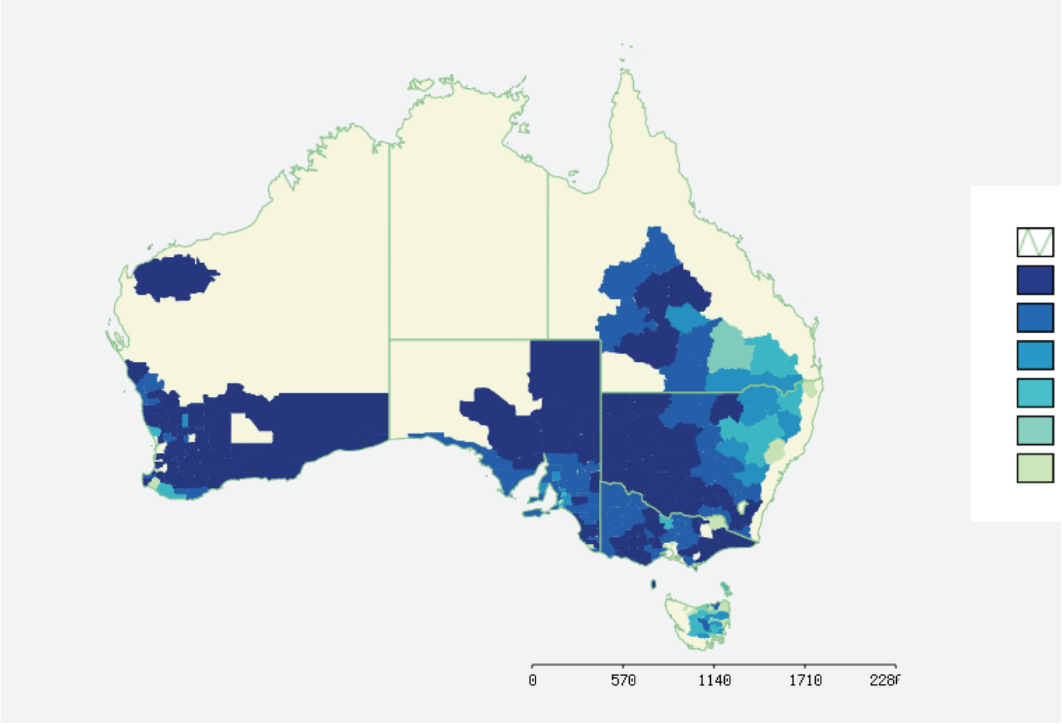

Figure 1b. Percentage of infected PICs by Local Government Area (LGA) with arthritis for 2018

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**: trimming of liver or abdomen if found.
- **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.

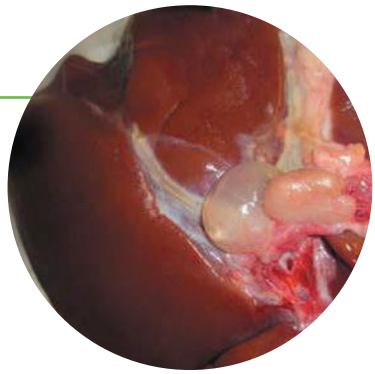

Image provided by the Primary Industries and Regions South Australia (PIRSA)

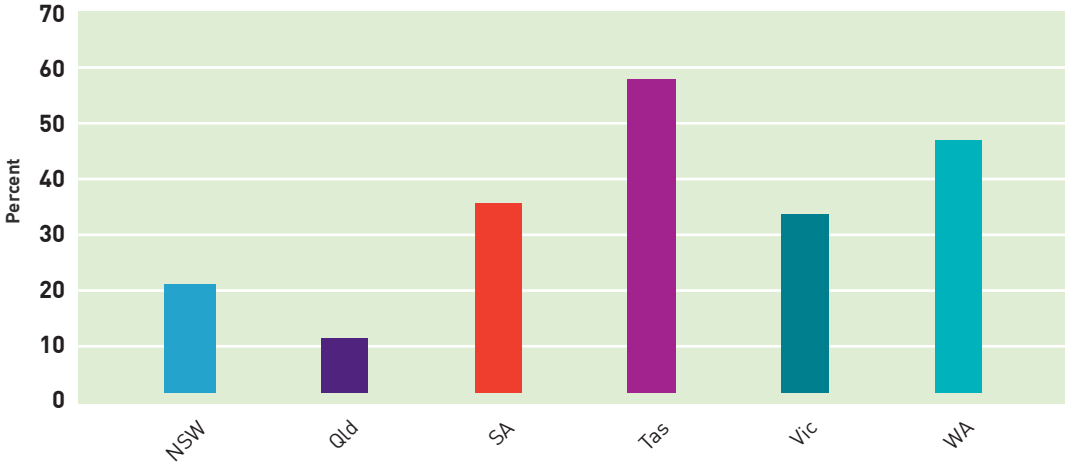

Figure 2a. Percentage of inspected lines with at least one infected animal in 2018

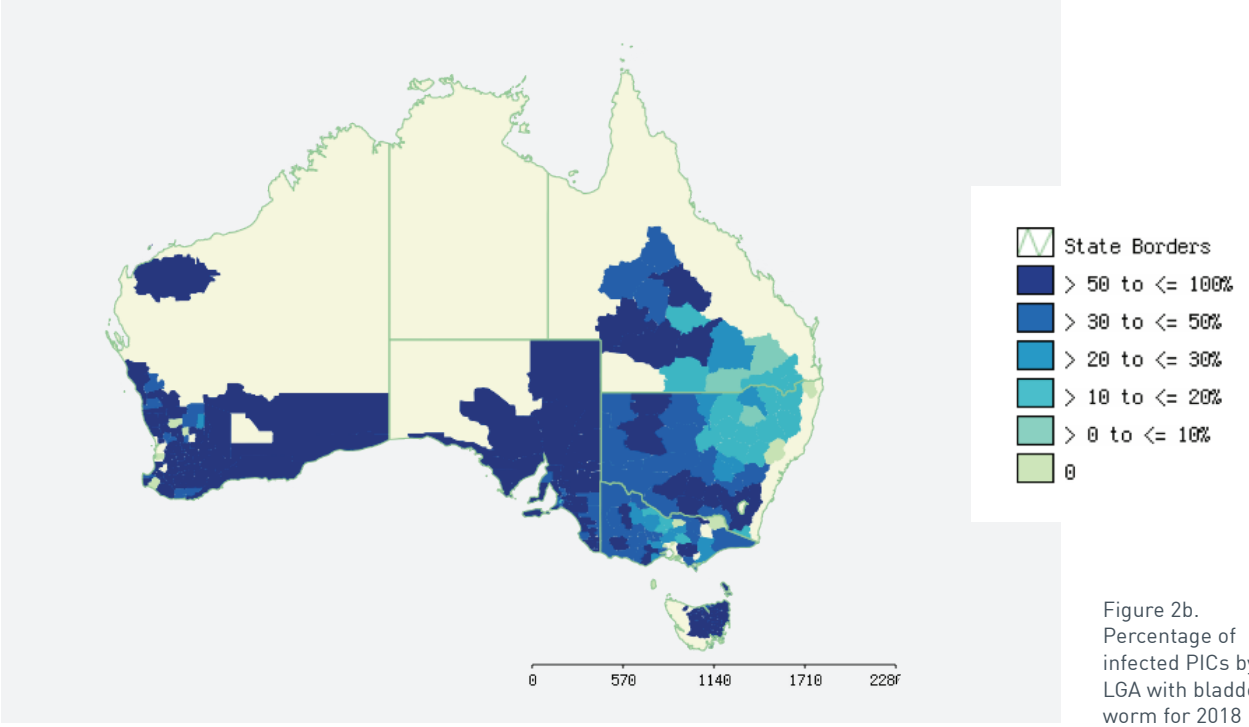

Figure 2b. Percentage of infected PICs by LGA with bladder worm for 2018

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.

Image provided by Zoetis

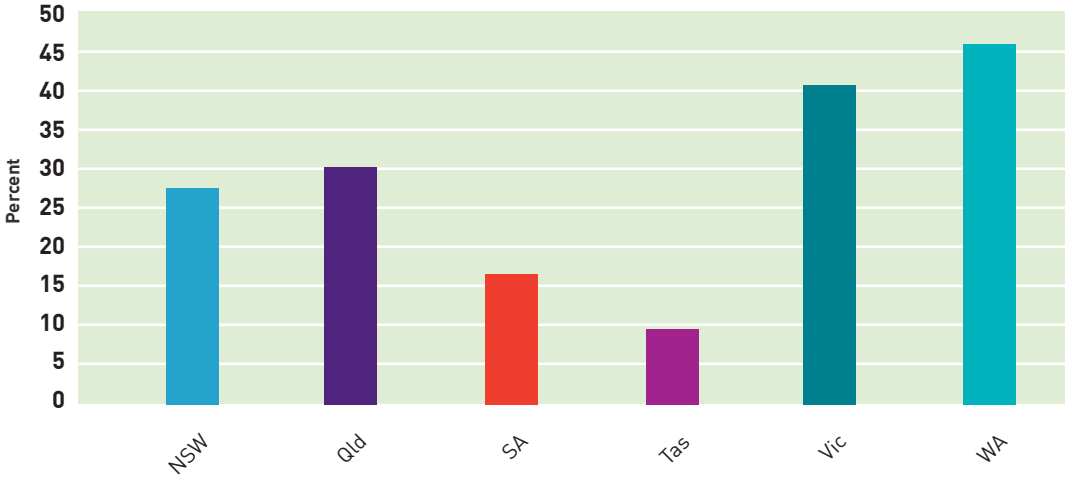

Figure 3a. Percentage of inspected lines with at least one infected animal in 2018

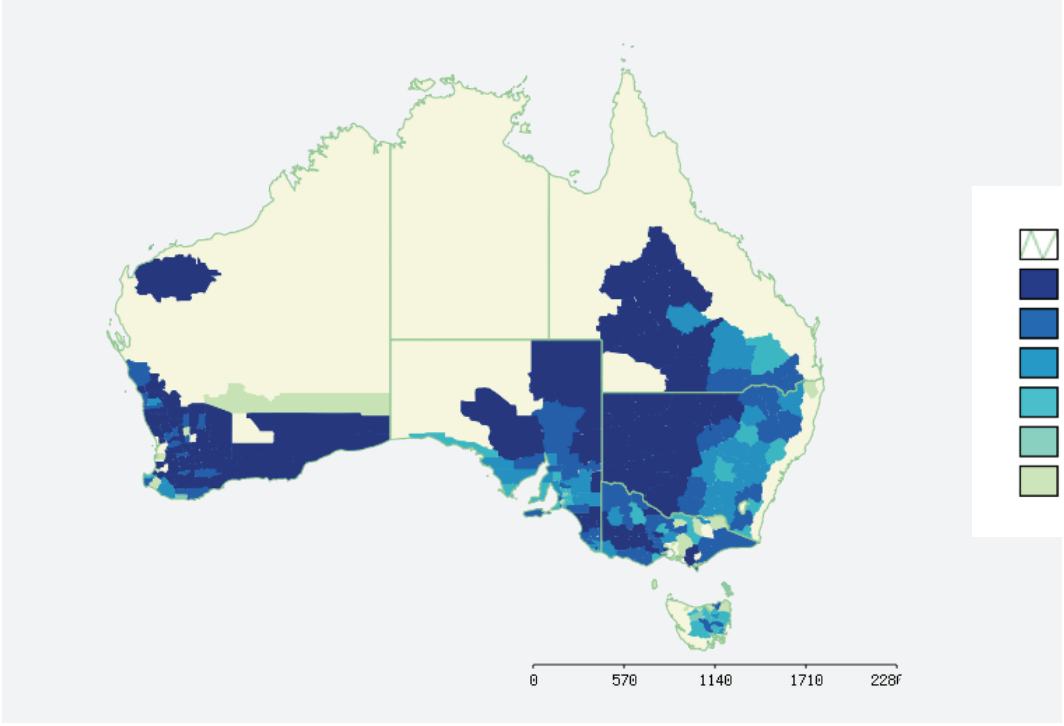

Figure 3b. Percentage of infected PICs by LGA with cheesy gland for 2018

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.

Image provided by MINTRAC

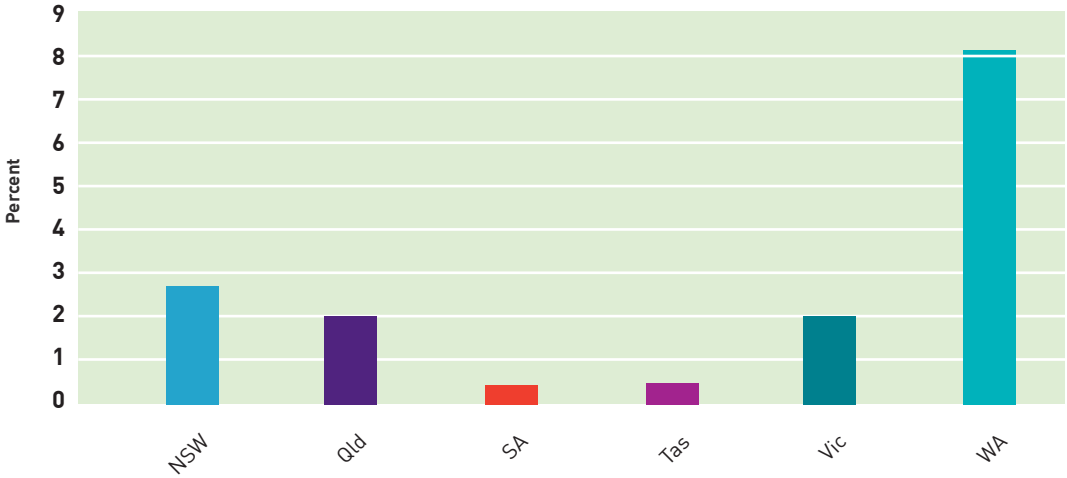

Figure 4a. Percentage of inspected lines with at least one affected animal in 2018

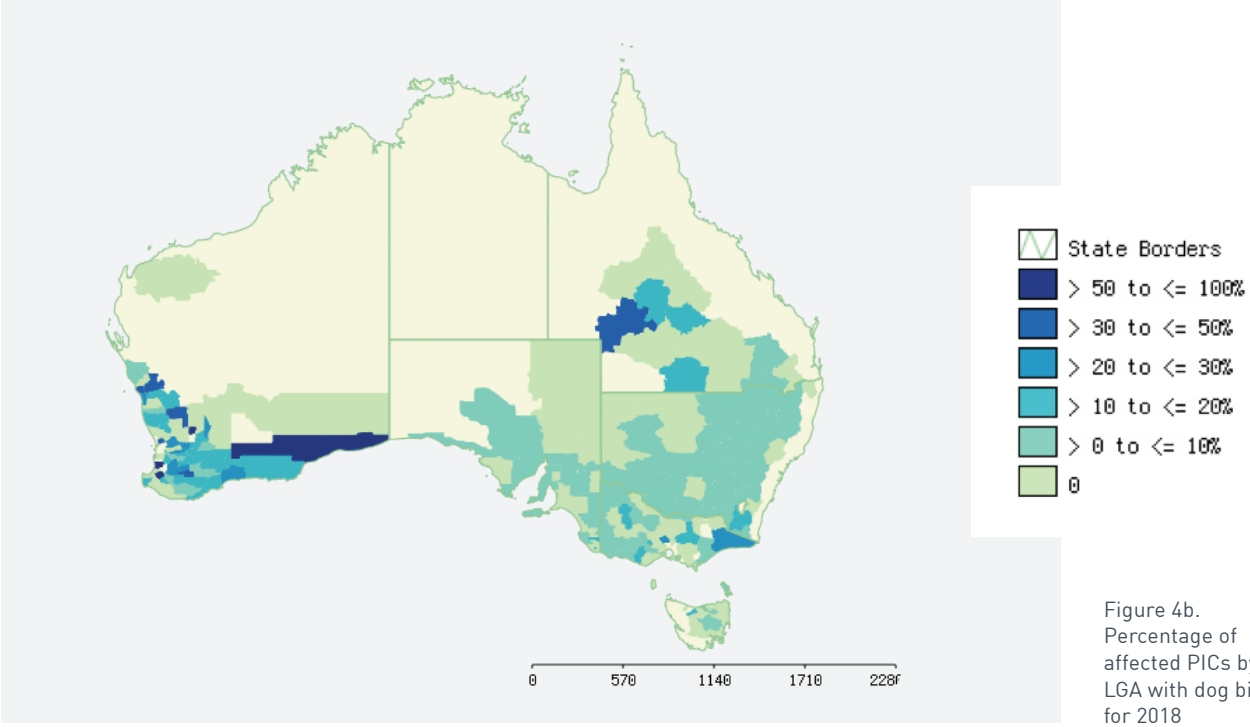

Figure 4b. Percentage of affected PICs by LGA with dog bites for 2018

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.

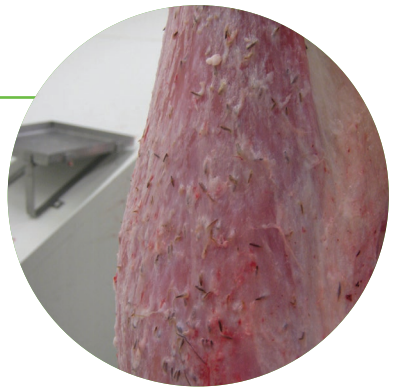

Image provided by the Primary Industries and Regions South Australia (PIRSA)

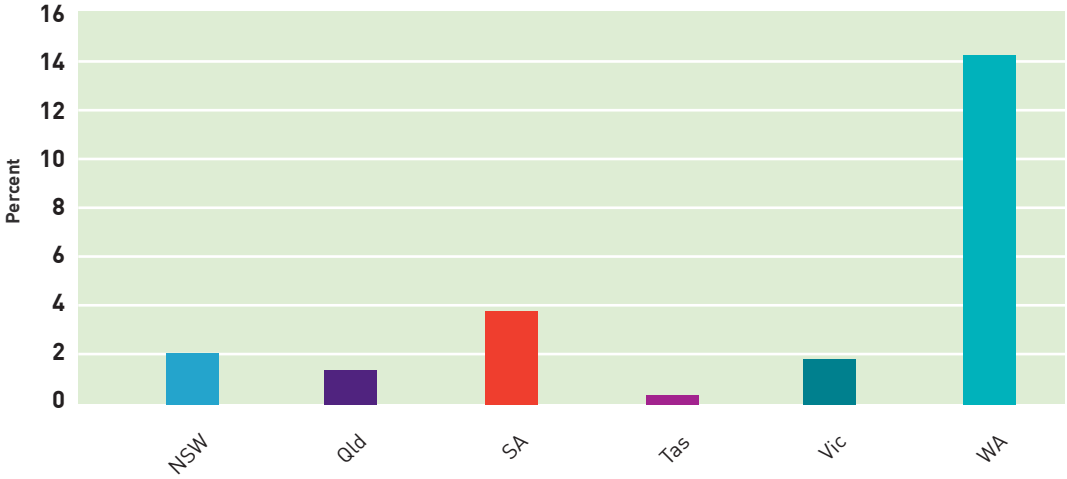

Figure 5a. Percentage of inspected lines with at least one affected animal in 2018

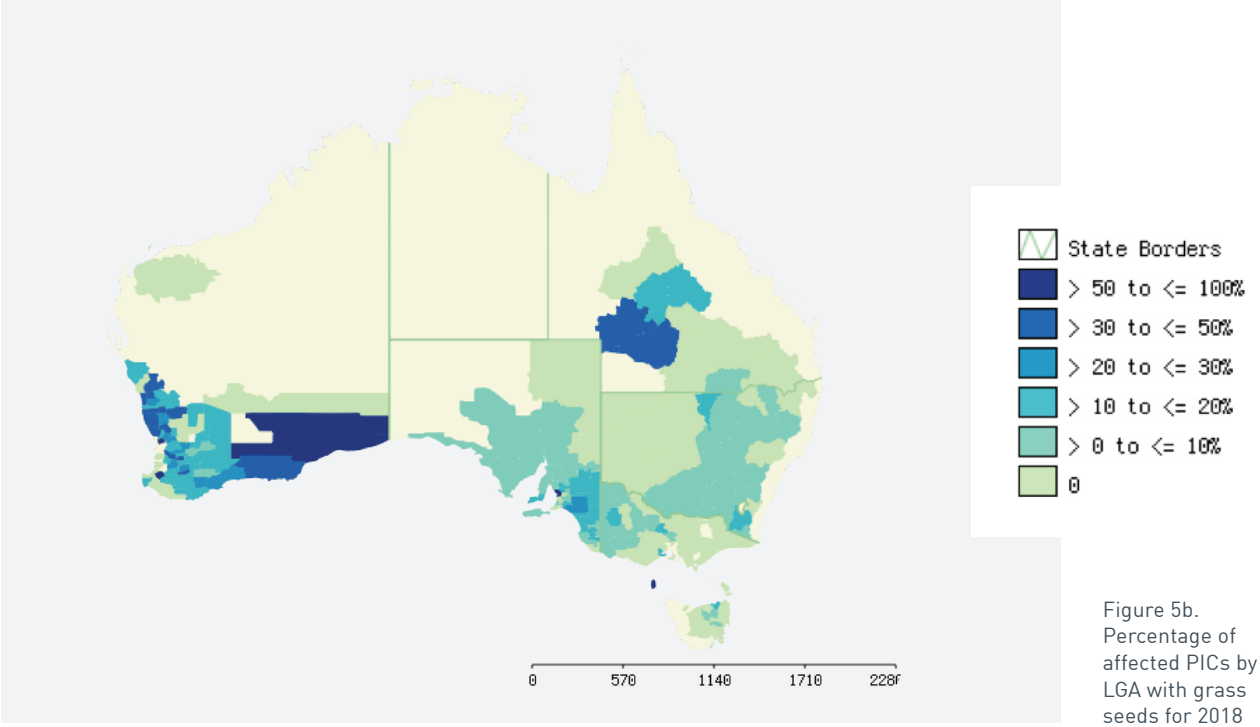

Figure 5b. Percentage of affected PICs by LGA with grass seeds for 2018

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.

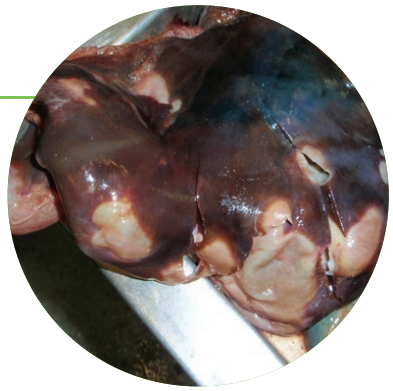

Image provided by Michelle Dennis from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

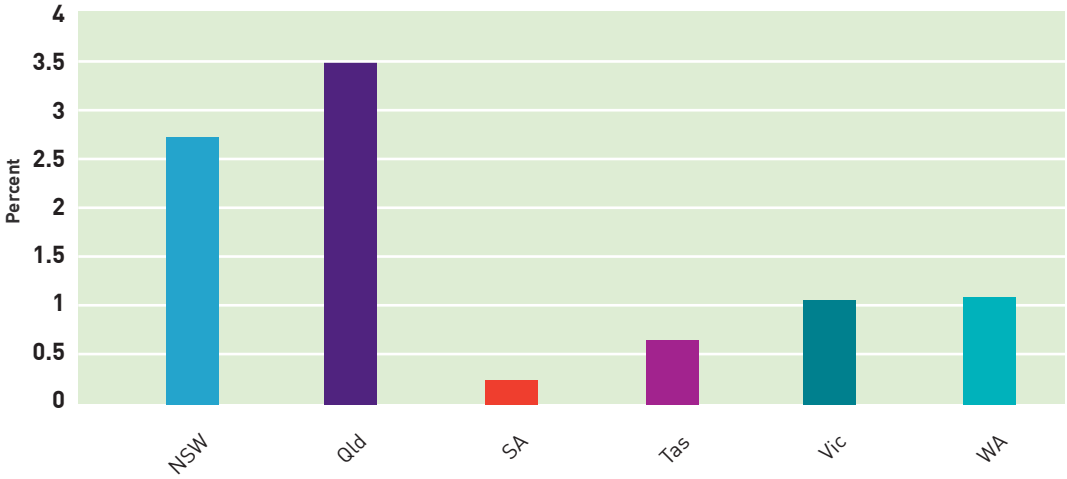

Figure 6a. Percentage of inspected lines with at least one infected animal in 2018

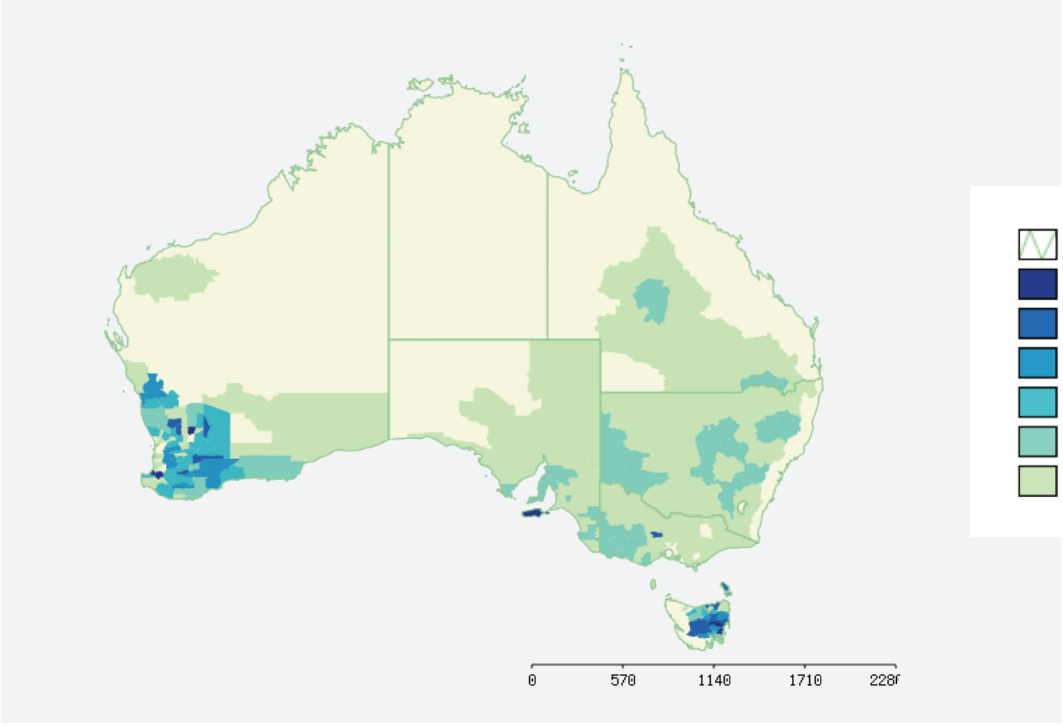

Figure 6b. Percentage of infected PICs by LGA with hydatids for 2018

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.
- **Significant at abattoir**: lesions on the intestines render them unusable as sausage casings.
- **Prevention**: seasonal drench.

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

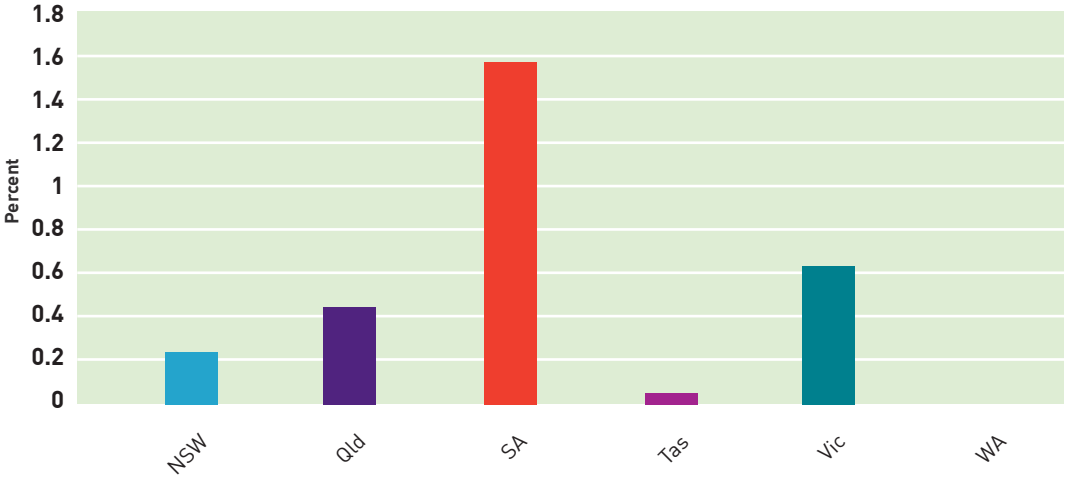

Figure 7a. Percentage of inspected lines with at least one infected animal in 2018

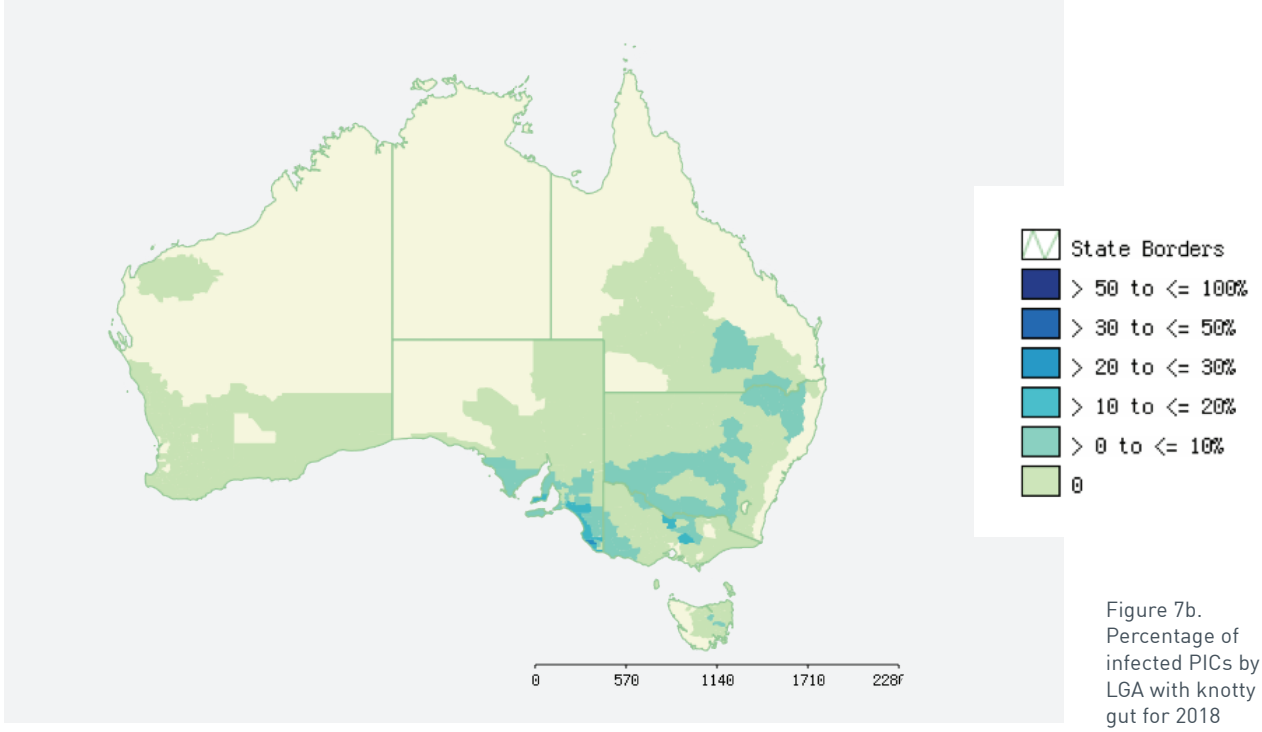

Figure 7b. Percentage of infected PICs by LGA with knotty gut for 2018

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.

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

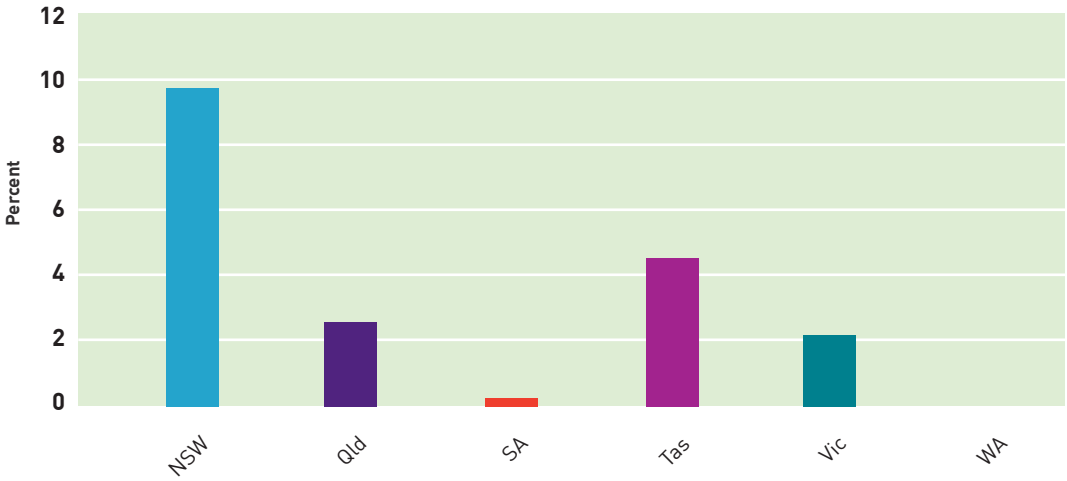

Figure 8a. Percentage of inspected lines with at least one infected animal in 2018

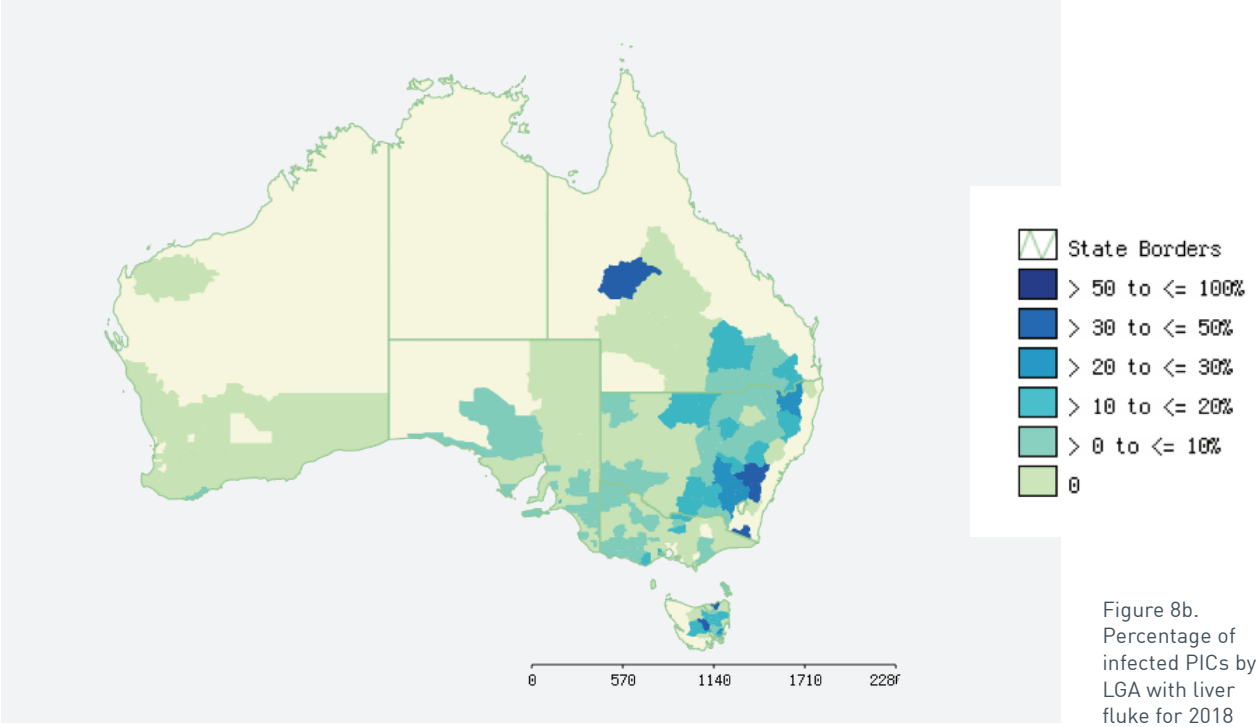

Figure 8b. Percentage of infected PICs by LGA with liver fluke for 2018

Lungworm

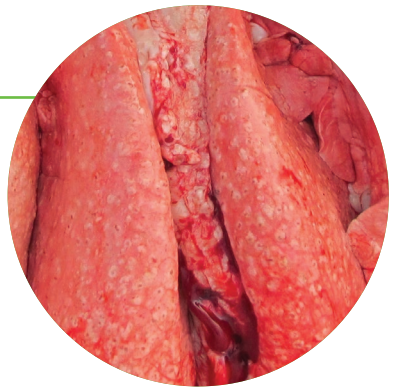

Image provided by Robert Suter

- **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.

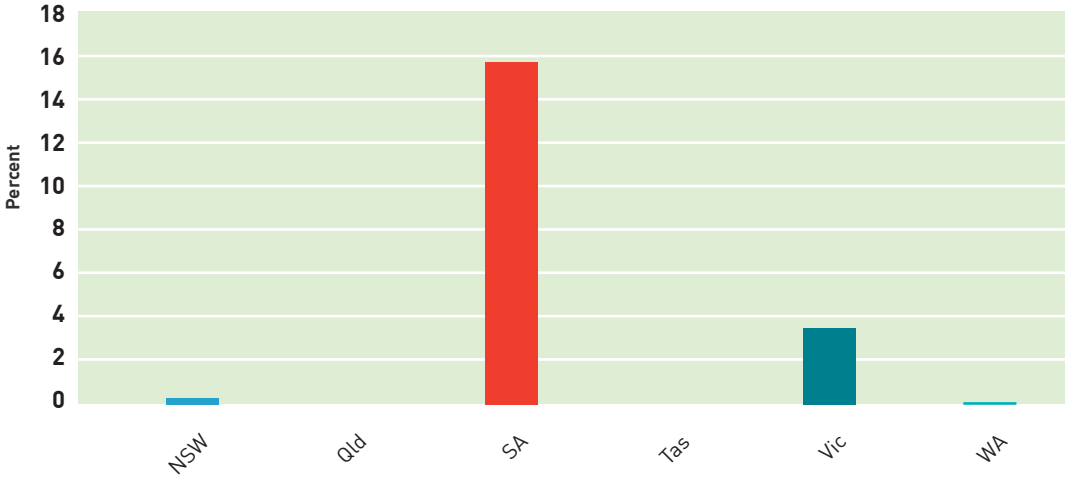

Figure 9a. Percentage of inspected lines with at least one infected animal in 2018

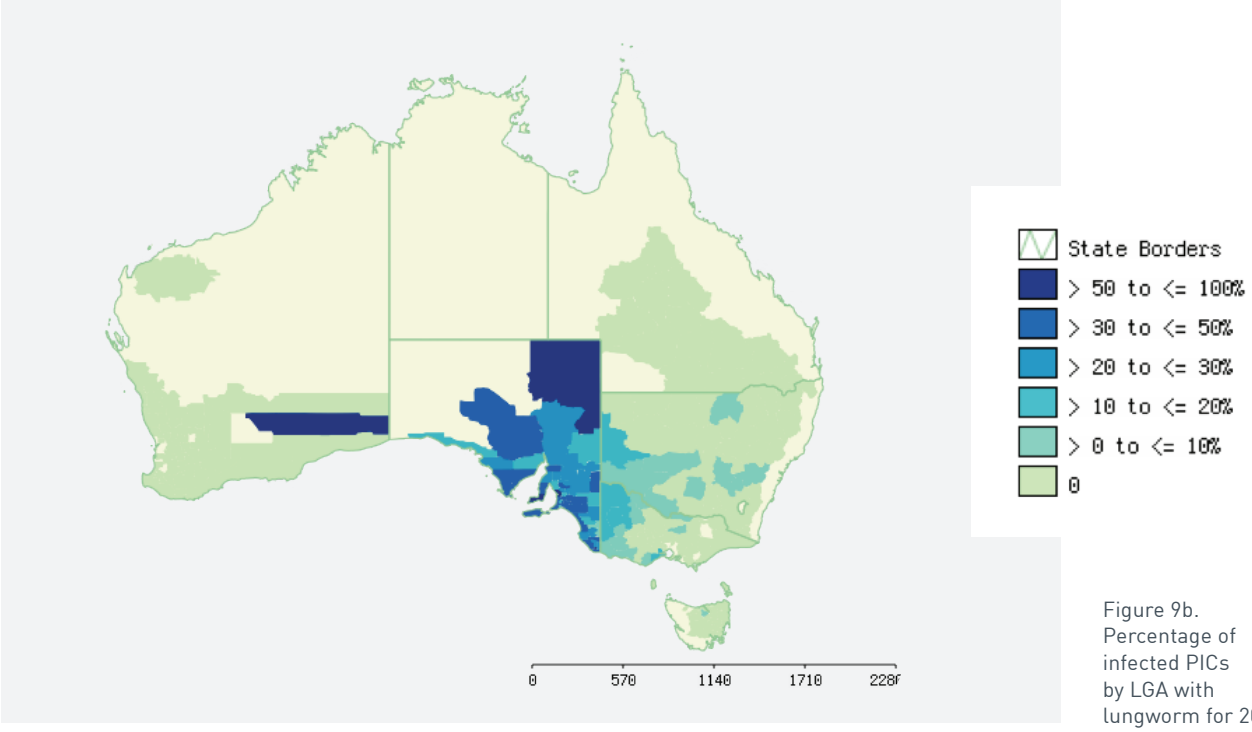

Figure 9b. Percentage of infected PICs by LGA with lungworm for 2018

Pleurisy

- **Cause**: pneumonia is caused by infection with either bacteria or 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 application of good husbandry practices.

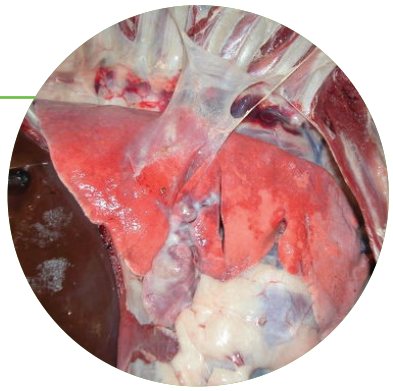

Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

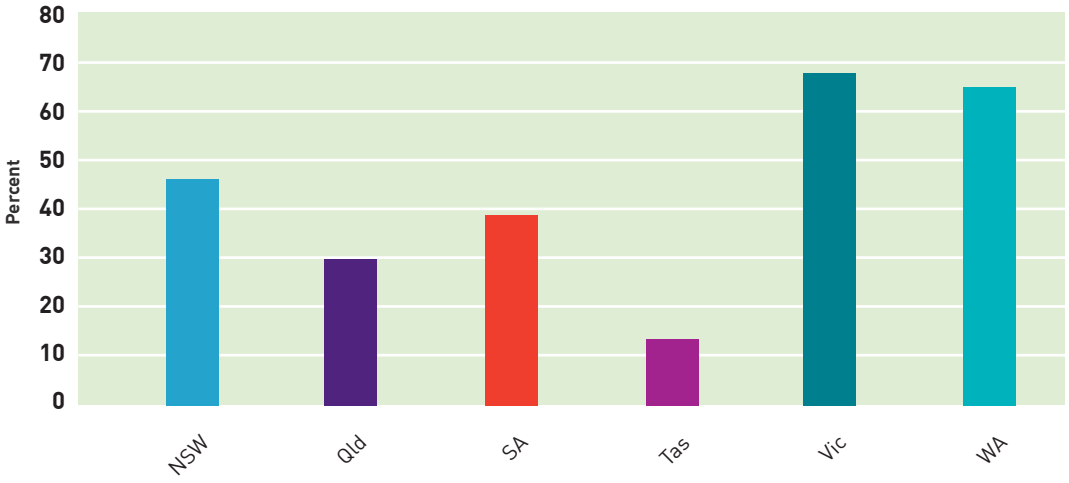

Figure 10a. Percentage of inspected lines with at least one infected animal in 2018

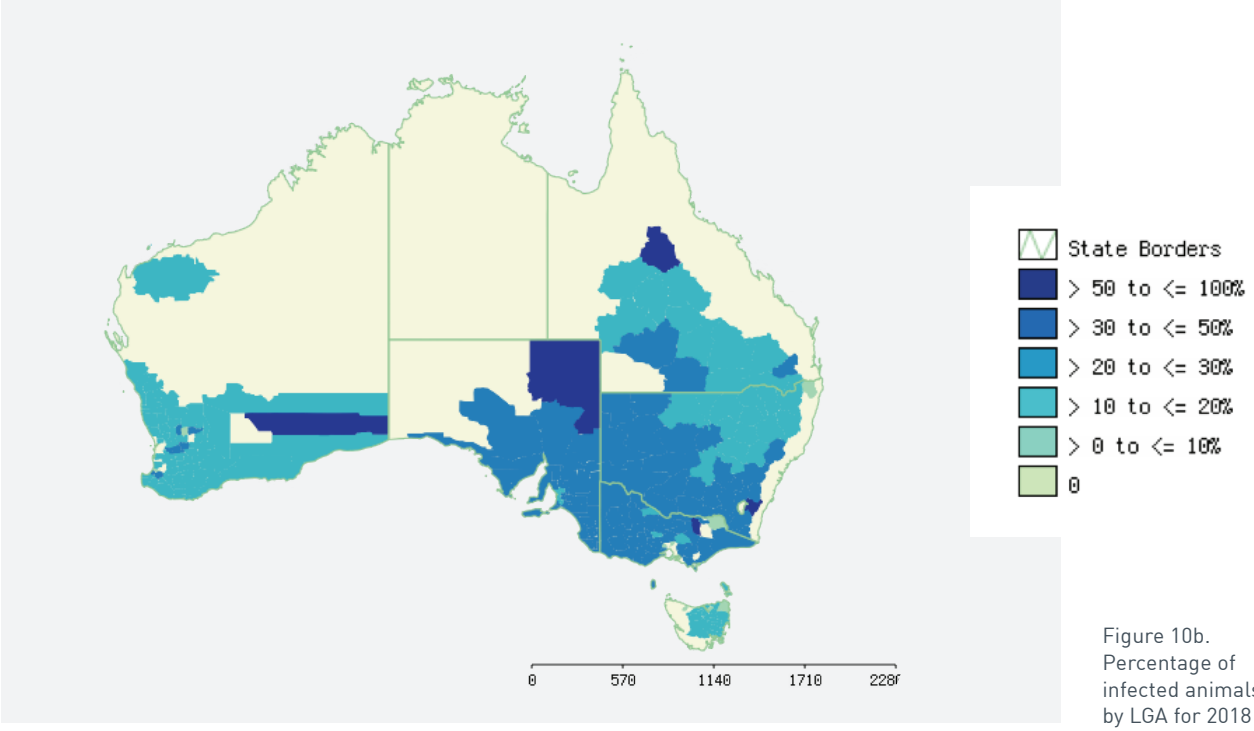

Figure 10b. Percentage of infected animals by LGA for 2018

Pneumonia

- **Cause**: pneumonia is caused by infection with either bacteria or 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 application of good husbandry practices.

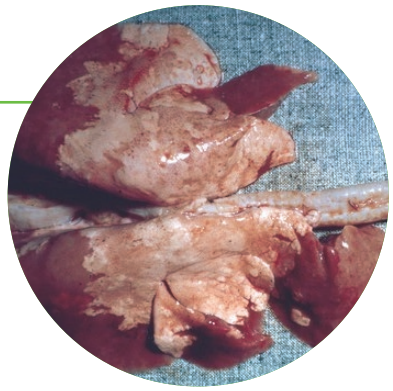

Image provided by Nick Sangster from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

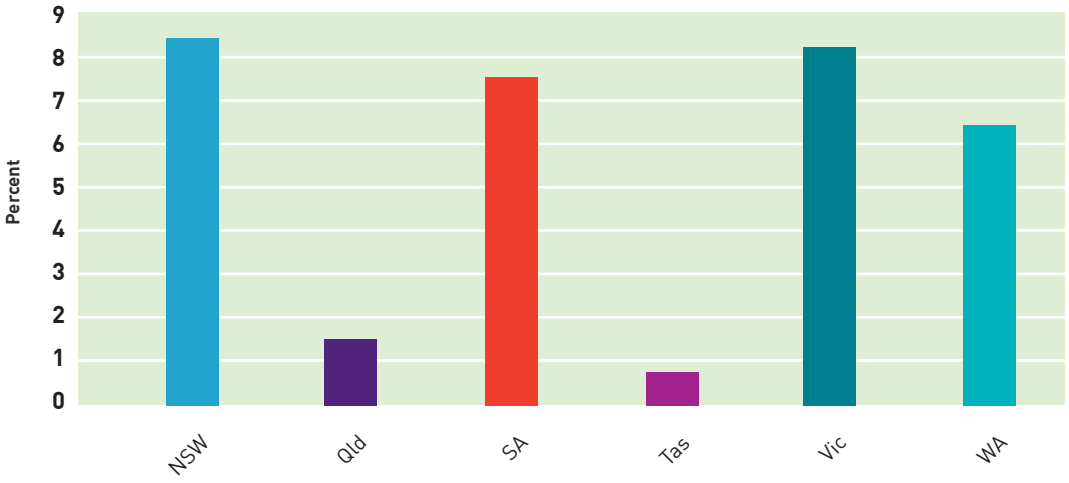

Figure 11a. Percentage of inspected lines with at least one infected animal in 2018

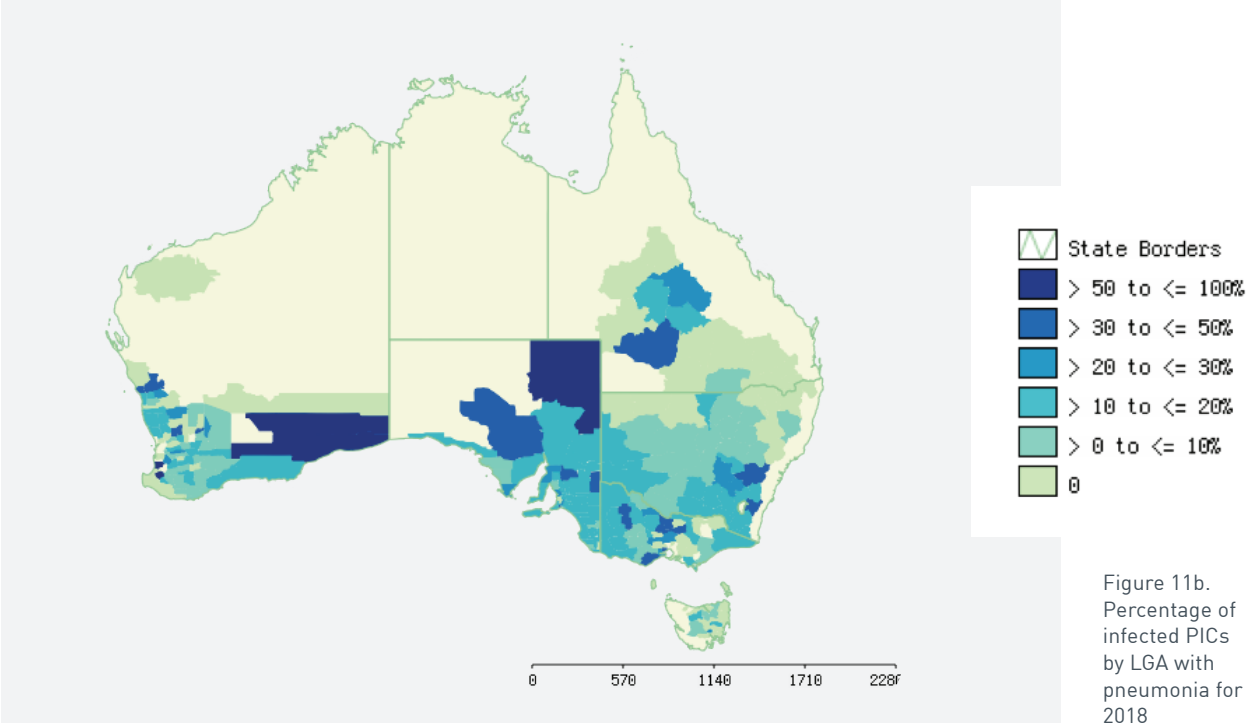

Figure 11b. Percentage of infected PICs by LGA with pneumonia for 2018

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.

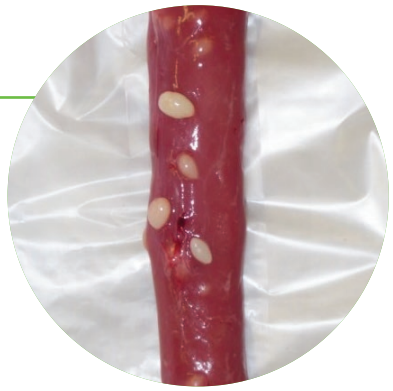

Image provided by the Primary Industries and Regions South Australia (PIRSA)

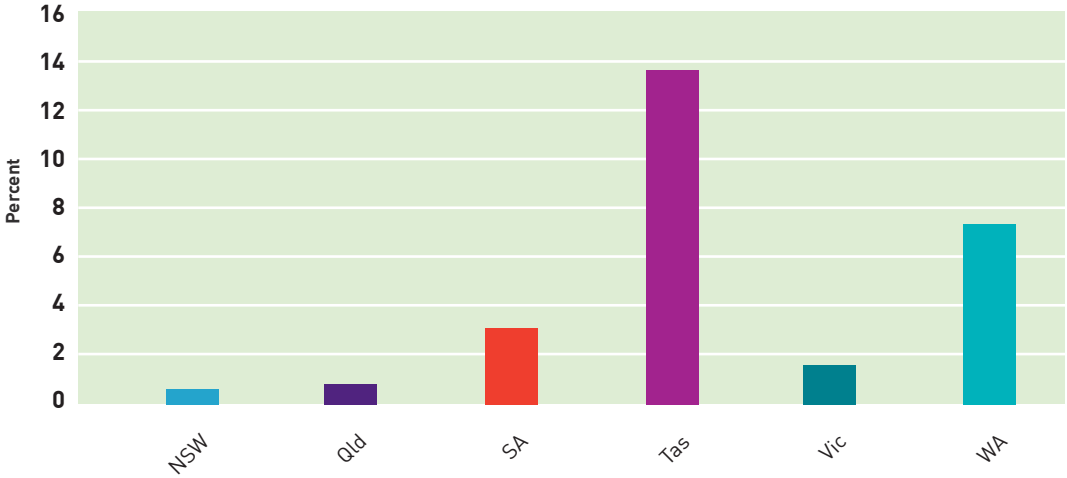

Figure 12a. Percentage of inspected lines with at least one infected animal in 2018

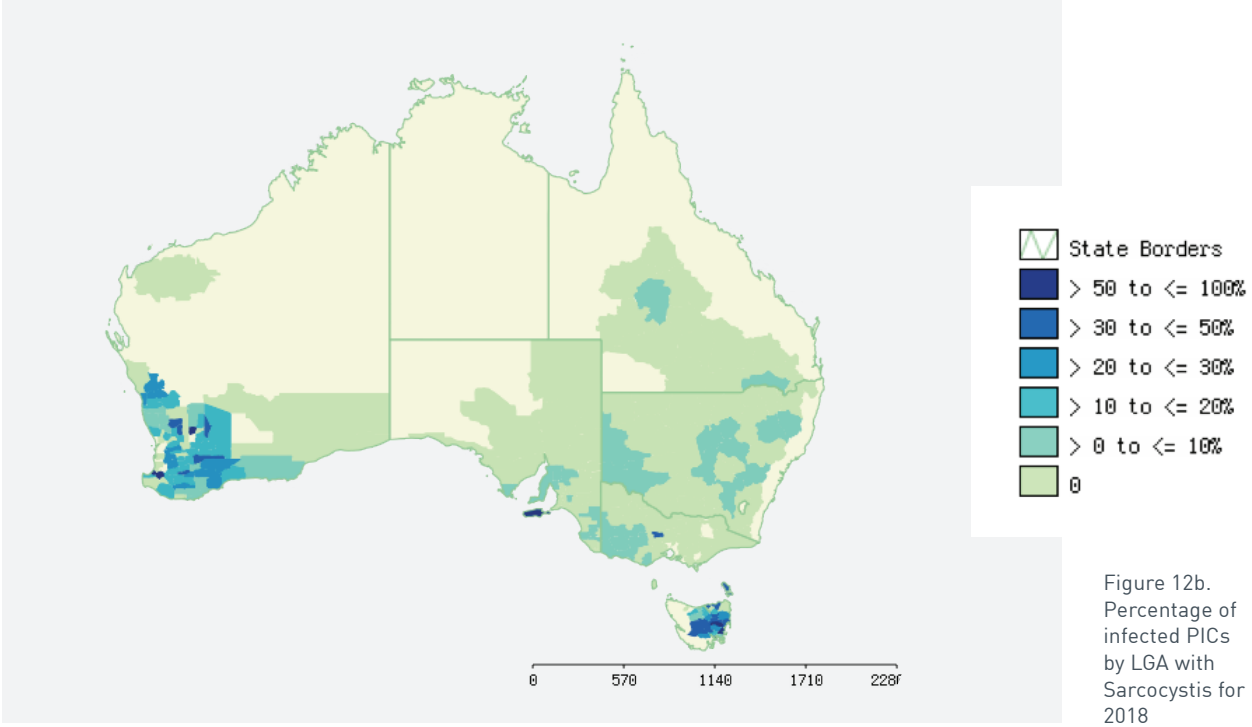

Figure 12b. Percentage of infected PICs by LGA with Sarcocystis for 2018

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.

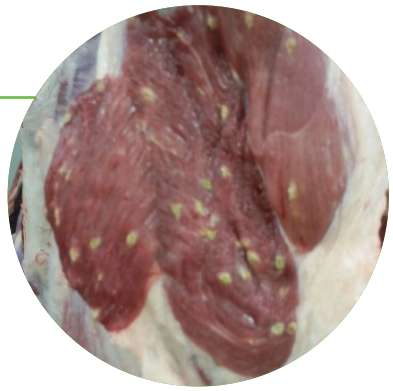

Image provided by the Primary Industries and Regions South Australia (PIRSA)

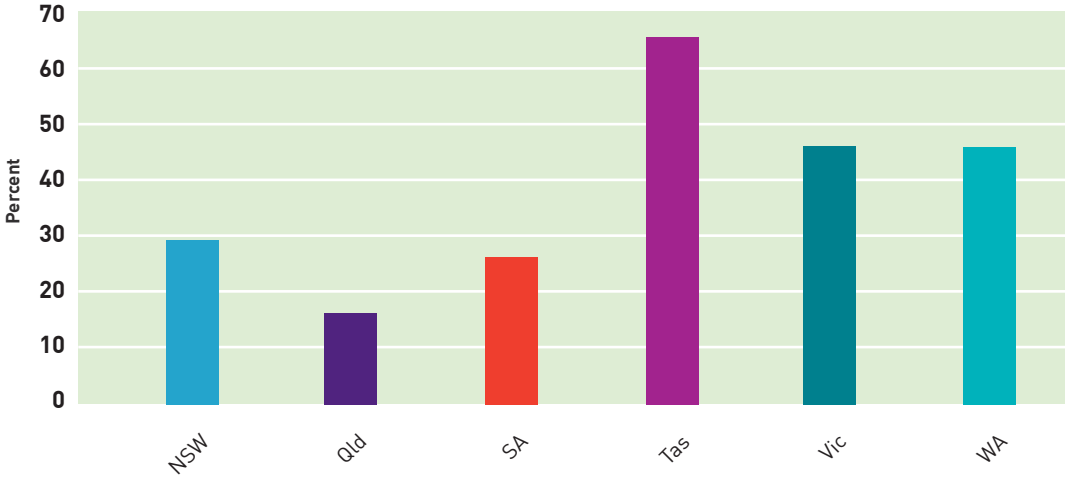

Figure 13a. Percentage of inspected lines with at least one infected animal in 2018

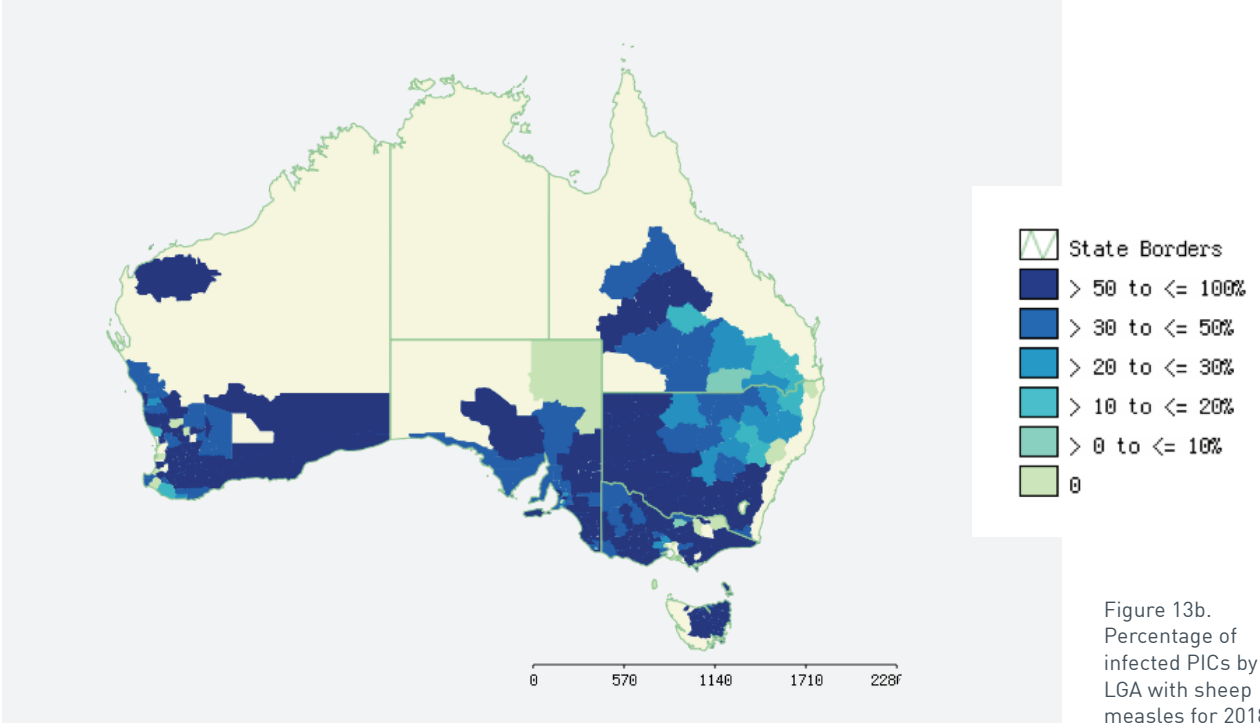

Figure 13b. Percentage of infected PICs by LGA with sheep measles for 2018

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.
- **Significant at abattoir**: trimming or carcass condemnation.
- **Prevention**: utilising correct vaccination technique.

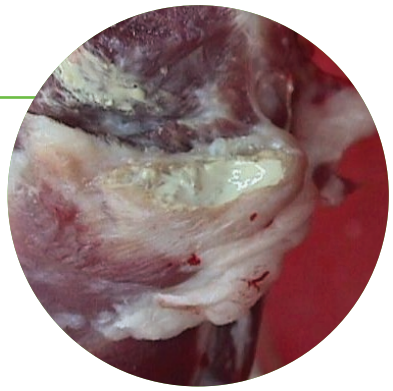

Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

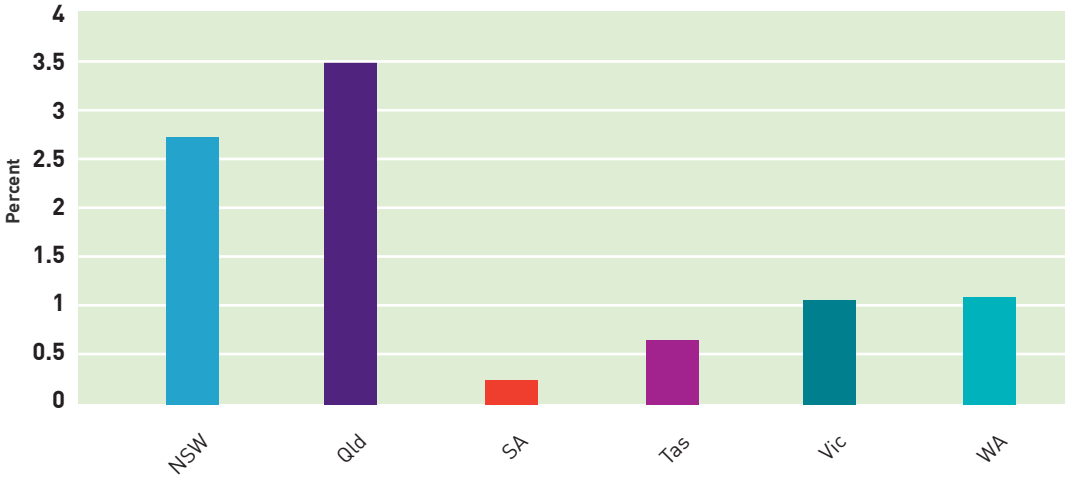

Figure 14a. Percentage of inspected lines with at least one affected animal in 2018

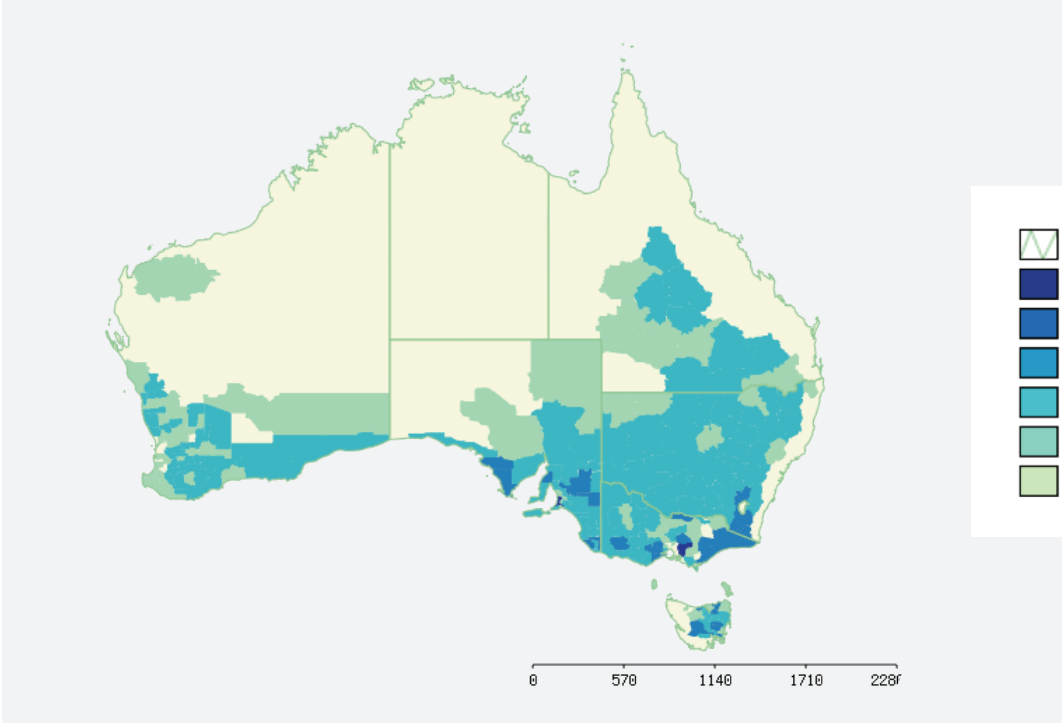

Figure 14b. Percentage of affected PICs by LGA with vaccine lesions for 2018

State contacts

STATE	COORDINATOR	ORGANISATION	NUMBER
QLD	Dr Louise Mullemeister	Department of Agriculture and Fisheries, Qld	(07) 4688 1470
NSW	Dr Paul Freeman	Department of Primary Industries, NSW	(02) 6626 1214
VIC	Dr Robert Suter	Department of Economic Development, Jobs, Transport and Resources, Vic	(03) 9217 4109
TAS	Dr John Cameron	Department of Primary Industries, Parks, Water and Environment, Tas	(03) 6165 2105
SA	Dr Nigel Baum	Department of Primary Industries and Regions, SA	(08) 8842 6222
WA	Dr Anna Erickson	Department of Primary Industries and Regional Development, WA	(08) 9881 0211

Industry contacts

INDUSTRY	EMAIL
Sheep Producers Australia	spa@sheepproducers.com.au
WoolProducers Australia	admin@woolproducers.com.au

SHEEP PRODUCERS AUSTRALIA

animalhealth AUSTRALIA

WOOLPRODUCERS AUSTRALIA

(02) 6232 5522
info@animalhealthaustralia.com.au
www.animalhealthaustralia.com.au