

# Tasmanian Livestock Health Report – December 2023

The Tasmanian Livestock Health Report summarises information on livestock diseases and conditions observed by rural service providers across Tasmania.

See [www.animalhealthaustralia.com.au/tas-health](http://www.animalhealthaustralia.com.au/tas-health) for previous reports and to register for a free email subscription, or join the [Tasmanian Livestock Health Facebook group](#)

Funding is provided by Animal Health Australia (with support from Sheep Producers Australia and WoolProducers Australia) and by NRE. Private veterinarians coordinate the project.

You are welcome to distribute this report to anyone you like. The next Tasmanian Livestock Health Report will be out in mid-February.

If you need more information on this project, please contact Bruce Jackson on 0407 872 520 or [rja69392@bigpond.net.au](mailto:rja69392@bigpond.net.au).

Also see the Resources section at the end of this report.

## Seasonal Disease Alerts

**Acute bovine liver disease (ABLD):** use sheep now to graze off paddocks that grow a lot of rough dog's tail weed, so that cattle can graze safely in autumn.

**Barber's pole worm:** will become a greater risk over the next few months, especially on irrigation and where rainfall has been significant.

**Black scour worms:** high egg counts are still being seen. Monthly worm egg counts on weaner sheep would be worth doing.

**Brown stomach worm:** is a summer worm, numbers are building and they are often resistant to drenches so do a DrenchCheck or Drenchtest if egg counts are 100 epg or more soon after a drench.

**Facial eczema:** can be seen on irrigated ryegrass pastures from now on, mainly in dairy cattle but sheep can be affected too.

**Flystrike:** Flies very active now. Heavy challenge may result in strike in sheep treated through spray races.

**Liver fluke:** Eggs can be present in Fluketests from now on, but blood tests are the best test to detect migrating fluke in live animals.

**Lucerne red gut:** seen as sudden death with a very bloated carcass on irrigated lucerne or clover. Offering roughage such as hay or straw or alternating between pasture and the lucerne/clover can help prevent cases.

**Nematodirus:** are active over the next few months in weaners. Scouring, not growing fast enough compared to the feed available, some Nematodirus eggs in the egg count (erratic egg producers).

**Pulpy kidney:** Make sure lambs get a booster if going onto rich feed such as clover or lucerne.

**Ryegrass staggers:** Active from now on. Graze off paddocks with a history of staggers with older animals, run weaners on safer pastures.

**Scabby mouth:** in lambs on feet and mouth.

## Biosecurity story of the month – boots and tyres can spread disease

Recently there have been several new outbreaks of footrot on properties where there were no neighbours with sheep or goats, and only a small number of rams had been brought into the flock every year from the same trusted source. It appeared that the infection must have entered on contaminated boots, tires or equipment.

This newsletter has given a lot of attention to the importance of “hotel quarantine”, entry treatments and observation for any livestock entering your property, mainly because most diseases are spread by live animals, and once on your farm they can excrete a lot of disease organisms, sometimes for years, and spread them right around the farm. But boots and tyres can also introduce diseases.

Diseases that survive in the environment and in animal manure cause the most concern here. Footrot, Johne’s disease, Salmonella, Yersinia and many other diseases can be spread on non-living objects. The risk is usually higher when conditions underfoot are wet, so you can be a little more relaxed in a hot, dry summer period.

Tyres are a possible source if the vehicle has driven over contaminated paddocks and straight onto a ‘clean’ area. If a vehicle has been travelling at speed on a sealed road for more than 10 minutes, the tyres usually heat up enough to kill most disease organisms and any contaminated material in the treads is thrown out.

Limiting the number of higher risk people and vehicles that walk or drive in areas where your livestock also walk is the first step.

If people who work on other properties regularly work on your property (eg shared employees), it may be worth getting them boots that stay on your farm and they only wear when working on your property.

Boot-cleaning and vehicle/equipment cleaning stations can also be set up. A high pressure hose is faster than a brush! Disinfectants won’t work through mud and manure, so getting the surface clean is the most important aspect. Finishing off with any disinfectant is a bonus.

The price of freedom is constant vigilance.

### **Wanted – ticks from any animal**

A survey is being conducted to detect bush ticks, the vector of bovine theileriosis, a disease that causes anaemia, abortions and deaths in cattle. The ticks are small and feed on a number of livestock, wildlife and bird species, so if you find ticks on any animal or bird, please put the tick in a small container and contact Guy Westmore on 0429 852 886 or Bruce Jackson on 0407 872 520.

### **Wanted – maggots**

If you find flystrike in your sheep within the label claim protection period, contact Bruce Jackson on 0407 872 520 and I will send you a maggot collection kit so that you have tests done for insecticide resistance in the sheep blowflies.- Testing is free.



## Diseases and conditions seen in December 2023

SHEEP				
Disease/condition	Number of reports/cases	Region	Details	Prevention, treatment, and other biosecurity advice or measures
Arthritis, infectious	Seen in 0.02% of lambs at abattoir.	NW, Northern and Southern Tasmania	Seen as lameness and swollen joints. Whole leg will usually be removed at slaughter, often making carcass worthless or dropping it into a lower price grade on the grid.	Removing tails at the third joint (level with tip of vulva in ewe lambs) at marking prevents many cases. Early antibiotic treatment under veterinary supervision of lame lambs may work. If Erysipelas is diagnosed in the flock, then consider use of Erysipelas vaccine. See fact sheet on: <a href="https://sheepconnecttas.com.au/disease-factsheets/">https://sheepconnecttas.com.au/disease-factsheets/</a>
Anaemia	One ewe on one large property	Northern Tasmania	Mob imported from Western NSW	Could be barber's pole worms, copper or cobalt deficiency, liver fluke. Have diagnostic testing done to find cause and then treat.
Barbers Pole worm	Several flocks	Northern Tasmania	Sudden death, no scouring, pale gums, bottle jaw, high egg counts, identified by postmortem or egg count & larval culture in lab.	Clinical signs and response to closantel drenching. See WORMBOSS website for details on diagnosis, control and prevention programs.
Black scour worm	One large flock	Northern Tasmania	Medium worm egg count, Trichostrongylus identified by larval culture at lab.	See WORMBOSS web site for good treatment and prevention strategies.
Black udder scar tissue	One ewe in one medium flock.	Southern Tasmania	One half of udder dies and rots out but tissue around blood vessels can remain and hangs out.	If you just cut this off, ewe will bleed to death. Place a rubber ring around the base if you can and it will drop off like a lamb's tail.
Bruising	0.02% of lamb carcasses at the abattoir	Southern Tasmania	Bruising must be trimmed and limits market destinations for affected carcasses	Handle sheep calmly and quietly
Cheesy gland (CLA)	One ewe in one small flock. Also seen in 0.24% of lamb carcasses at the abattoir.	Southern Tasmania.	Bacterial infection that causes abscesses in the glands – seen as lumps full of cheesy pus in front of shoulder, thigh,	Use of six in one vaccine has made this disease less common now, but would return if producers stopped using it. In pet sheep veterinarian can drain abscesses and administer penicillin.

			in groin and internally	
Chlamydia abortions	One medium flock	Southern Tasmania	Ewe lambs only. Mid-term abortions.	Detected by serum antibody testing. No vaccine. We don't really know how common this is in Tasmania, but worth considering in abortion cases if Toxo and Campy ruled out. Possible Chlamydia lameness to be ruled out on this property as well.
Club foot	One ram in one medium flock	Northern Tasmania	Usually a deformed foot due to scar tissue after foot abscess has healed up.	If sheep is not lame, no reason to cull or treat. If lame the toe joints could be affected and anti-inflammatories and maybe antibiotics under veterinary supervision may be worth a try.
Cysticercosis ("bladder worm")	Detected at abattoir in 2.31% of lamb carcasses.	NW, Southern and Northern Tasmania	Seen as small clear bags of fluid attached to liver or elsewhere in abdominal cavity of sheep at abattoir. Causes liver to be trimmed or condemned. Spread by a dog tapeworm.	Prevented by stopping dogs from eating sheep offal and/or by treating all dogs including pets with a wormer containing praziquantel every 30 days. Visiting dogs (contractors, shooters) must be treated at least 2 days before arrival on property. Keep stray dogs off the property. These measures also prevent sheep measles and hydatids. See fact sheet on: <a href="https://sheepconnecttas.com.au/disease-factsheets/">https://sheepconnecttas.com.au/disease-factsheets/</a>
Dags	Wide-spread but mainly in small proportion of sheep.	NW, Northern and Southern Tasmania	Due to scouring.	May be due to worms, gut infection (eg Salmonella, Yersinia, coccidia), nutritional factors. Have a WORMTEST egg count done and ask the laboratory to check for coccidia, culture for Yersinia and Salmonella if egg counts are low. Check paddock for plants such as capeweed. Crutch. The Dealing with Dag Advisor Manual is available at <a href="http://www.wool.com/flystrikelatest">www.wool.com/flystrikelatest</a> .
Flystrike	Widespread	NW, N and Southern Tasmania	Breech, body, shoulder, poll strike in rams, pizzle strike in wethers. Foot strike (secondary to footrot or foot abscess). Sheep with footrot struck over ribs from lying on infected foot.	Observe for damp, grey areas of wool, tail flicking, separation from mob, lying down. The AWI web site has a large number of resources and runs workshops on flystrike. See: <a href="https://www.wool.com/simplify">https://www.wool.com/simplify</a>
Flystrike prevention chemical failure	Suspected in a number of large flocks	Southern Tasmania	Sheep were struck within the label claim protection period.	All treated using an Electrodip. Note that some fly chemicals only claim 'up to 12 weeks protection under light to moderate fly pressure'. Maggots should be collected and sent to NSW blowfly resistance research unit at EMAI. There are other possible reasons for failure - excessive rainfall, poor application technique, wrong mixing rate, wrong dose rate etc
Footrot, virulent	Widespread	Southern, Northern Tasmania	Low % on dryland & have vaccinated but very active	Can start eradication inspections now in most areas. Footbathing and vaccination, paring, culling "chronics" that don't respond to treatment are on-going strategies. Long acting oxytetracycline antibiotics under veterinary

			spread on some irrigation paddocks. Some 'dormant' lesions seen in sheep on dryland.	supervision is useful from now on if conditions stay dry. Prevention: Ask for a Sheep Health Declaration when buying sheep and ensure section B1 confirms flock is free of virulent footrot but still footbath, quarantine and check feet on arrival. Footbath sheep returning from shows. Maintain good boundary fence. See Ute Guide for Tasmania: <a href="https://www.wool.com/globalassets/wool/sheep/welfare/other-husbandry/footrot--a-guide-to-identification-and-control-in-the-field---tas-2019.pdf">https://www.wool.com/globalassets/wool/sheep/welfare/other-husbandry/footrot--a-guide-to-identification-and-control-in-the-field---tas-2019.pdf</a>
Footrot, benign (mild, "scald")	Two large flocks	Southern Tasmania	Inflammation between toes but limited under-running of heel and sole of hoof.	Regular footbathing is usually sufficient to control during spread period and usually disappears with dry weather. Hard to eradicate.
Grass seeds in eyes, mouth and under skin.	Several properties. Also detected in 0.04% of lamb carcasses in the abattoir.	Southern Tasmania	Grass seeds (usually barley grass) get under third eyelid and cause irritation of cornea (surface of eye) causing discharge down cheeks	Grass seeds must be removed manually from eye, then use a spay or ointment to control infection. Can also lodge in mouth and can be manually removed. Shear or wig sheep to reduce seed pickup. Barley grass can be controlled with strategic grazing, herbicides or slashing.
Liver fluke	Detected at abattoir in 0.06% of lamb carcasses.	NW, Northern and Southern Tasmania	Abattoir detection, farm post mortem or Fluke eggs found in FLUKETEST on manure samples sent to laboratory. Bottle jaw, anaemia, weight loss and deaths from heavy infestation.	Most fluke are adult stage in bile ducts in liver at this time of year but pickup of immatures will be starting about now. Triclabendazole best treatment from November to June as it kills immature fluke as well as mature fluke. See fact sheet on <a href="https://sheepconnecttas.com.au/disease-factsheets/">https://sheepconnecttas.com.au/disease-factsheets/</a>
Nematodirus	Widespread in weaners	NW, Northern and Southern Tasmania	Weaners scour and have lowered growth rates. Nematodirus egg counts may or may not be high.	Nematodirus egg counts often do not reflect adult worm burden inside the weaners. Autopsy and total worm count or treat and look for response. See WORMBOSS web site for details on control.
PEM (polioencephalomalacia)	One ewe in one small flock	Southern Tasmania	'Star gazing', blindness, other central neurological signs.	Usually associated with rich diet. This one given 400g of grain with no introductory lead-up. Treat early with Vitamin B1 injections. Animal Health Australia subsidies available for postmortems on certain neurological cases.
Pleurisy	Detected at abattoir in 1.38% of lamb carcasses.	Southern and Northern Tasmania	Lungs stuck to chest wall. Usually results in major trimming.	Treat sick sheep with cough or respiratory distress with antibiotics (under vet supervision). Try to avoid stress events, drench sheep carefully, avoid dusty feedstuffs. See: <a href="https://animalhealthaustralia.com.au/wp-content/uploads/NSHMP-Pneumonia-Pleurisy.pdf">https://animalhealthaustralia.com.au/wp-content/uploads/NSHMP-Pneumonia-Pleurisy.pdf</a>
Pneumonia	Detected at abattoir in 0.07% of lamb carcasses.	NW, Northern and Southern Tasmania	Deaths, difficulty breathing	Early cases in front part of lungs. Antibiotic treatment of cases (under vet supervision and best caught early). Reduce any stress factors. See <a href="https://animalhealthaustralia.com.au/wp-content/uploads/NSHMP-Pneumonia-Pleurisy.pdf">https://animalhealthaustralia.com.au/wp-content/uploads/NSHMP-Pneumonia-Pleurisy.pdf</a>

Ryegrass staggers	Weaners in one large flock	Southern Tasmania	Usually young sheep - tremors, abnormal gait, may become downers, may convulse when disturbed. Often seek water and drown in dams. Can have high mortality.	See <a href="https://dPIPWE.tas.gov.au/biosecurity-tasmania/animal-biosecurity/animal-health/sheep/perennial-ryegrass-staggers">https://dPIPWE.tas.gov.au/biosecurity-tasmania/animal-biosecurity/animal-health/sheep/perennial-ryegrass-staggers</a> for details on diagnosis treatment and prevention.
Sarcosporidia ("Sarco")	Detected at abattoir in 0.15% of lamb & hogget carcasses.	Southern and Northern Tasmania	Small 'rice grain' whitish raised lesions on outside of food pipe (oesophagus), diaphragm and in skeletal muscles. Carcase trimmed or condemned.	Spread by cats. Takes a long time to grow so not seen in lambs. Deny cats access to sheep meat, burn or bury carcasses promptly, eradicate feral cats over large area. See fact sheet on: <a href="https://sheepconnecttas.com.au/disease-factsheets/">https://sheepconnecttas.com.au/disease-factsheets/</a>
Scour in hoggets on irrigation	10% of lambs in one large mob	Southern Tasmania	Can be due to worms, coccidia, Cryptosporidia, Giardia, bacterial gut infection, nutritional factors.	Worms most common cause. WORMTEST or drench and see if they respond. Check for sudden diet change to lush feed, plants such as capeweed. May need veterinary involvement and faecal cultures and coccidia check if growth rates are low.
Sheep measles	Detected in 1.66% of lamb carcasses at the abattoir.	NW, Northern and Southern Tasmania	Small whitish mass about half the size of a 5 cent piece protruding from the muscle of the heart, food pipe and skeletal muscles. These lesions are the intermediate stage of a dog tapeworm.	Prevented by stopping dogs from eating raw sheep meat. Freeze sheep carcase meat for 2 weeks before feeding to dogs, burn/bury sheep carcasses promptly and treat all dogs including pets with a wormer containing praziquantel every 30 days. Visiting dogs (contractors, shooters) must be treated 2 days before arrival on property. Keep stray dogs off the property. See fact sheet on <a href="https://sheepconnecttas.com.au/disease-factsheets/">https://sheepconnecttas.com.au/disease-factsheets/</a>
Worms	Widespread	NW, Northern, Southern Tasmania	Worms can be diagnosed by scouring, anaemia, poor weight gain which respond to drenching, or by WORMTEST with or without larval identification, or total worm count at post mortem.	Worm egg counts generally moderate except for some high counts associated with barbers' pole and black scour worm. See WORMBOSS at: <a href="http://www.wormboss.com.au/sheep-goats/programs/sheep.php">http://www.wormboss.com.au/sheep-goats/programs/sheep.php</a>

Vaccination lesions	Detected at abattoir in 0.01% of lamb carcasses.	Southern and Northern Tasmania	Caused by vaccinating into the muscle, armpit, top of neck etc. Trimming can involve removing the whole hind leg or front leg.	Extra care must be taken with Gudair as large lumps often result. Vaccinate under the skin high on the <b>side</b> of the neck. Never vaccinate into the muscle. For details see: <a href="https://www.zoetis.com.au/all-products/portal-site/beef-dairy-sheep/sheep-gudair.aspx">https://www.zoetis.com.au/all-products/portal-site/beef-dairy-sheep/sheep-gudair.aspx</a>
<b>CATTLE</b>				
Body condition low	A number of cows in several herds	Southern Tasmania	Reasonable feed on offer.	Veterinary investigation, check micronutrient levels, worms, liver fluke status.
Dags	A number of young cattle in one medium herd	Northern Tasmania	Dried faeces stuck on tail hair.	Previous scour. Worms, dietary factors, viral diseases can all be involved.
Dry PTIC cows at marking	A higher than expected % of cows in several large herds	Northern Tasmania	Pestivirus, Vibrio, Neospora, and a number of other diseases and conditions possible.	Veterinary investigation warranted. Start with some sampling for common causes of abortion such as Pestivirus and Vibrio.
Extended calving	Several herds	Southern Tasmania	Nutrition, Vibrio, Trichs, are some possible causes	Veterinary investigation, check feed quality, micronutrients, venereal diseases etc.
Hair loss over tail head in steers	Several steers in several herds	Northern Tasmania	May be remnant of chorioptic mange or riding by other steers or heifers on heat if mixed sex mob.	Skin scrapings may be worth taking if seen as a problem worth investigating.
Horning wounds	One heifer in one small herd.	Northern Tasmania.	Bruising due to horning during transport is a significant cause of trimming in abattoir.	Use polled breeds, dehorn, or at least 'tip' the horns so that less damage is done. Transport horned cattle separately from polled.
Micronutrient deficiency	Suspected in two medium herds	Southern Tasmania	Lowered growth rates, and fertility. Can cause white bands in black hair and/or bone fractures (copper deficiency), white muscle disease (selenium deficiency), anaemia (B12 deficiency).	Collect 5 blood or liver samples (July is best time) for testing. Various options for treatment.

Nasal discharge, clear	Widespread	NW, Northern and Southern Tasmania	Could be caused by a number of respiratory viruses and bacterial infections or allergy.	If animal is otherwise bright and alert, just keep under observation. If any other signs of ill-health use antibiotics under veterinary supervision.
Nasal discharge, purulent (snotty)	Widespread	NW, Northern and Southern Tasmania	Could be caused by a number of respiratory viruses and bacterial infections.	If animal is otherwise bright and alert, just keep under observation. If any other signs of ill-health use antibiotics under veterinary supervision.
Ocular (eye) discharge (clear, watery) both eyes	A number of weaners from a number of herds	NW, Northern and Southern Tasmania	Usually caused by an irritant such as pollen, dust etc but can be first stage of Pink Eye.	May not be possible to remove from irritants. Observe again later to make sure Pink Eye is not developing.
Ocular (eye) discharge (clear, watery) only one eye	A number of weaners from a number of herds	NW, Northern and Southern Tasmania	Usually caused by a foreign body such as a grass seed	Examine eye for foreign bodies including under the third eyelid.
Ringworm	A number of young cattle in three large herds	Northern & Southern Tasmania	Scaly circular areas of hair loss usually around head and neck.	Usually heal up eventually if left alone. Antifungal ointments or iodine can be rubbed into lesions. Can spread to man so precautions must be taken.
Salivation and muzzle crusting	One heifer in one medium herd	Southern Tasmania	Could be photosensitisation or Infectious Bovine Rhinotracheitis (IBR). No other signs of an exotic disease eg lameness, ulcers between toes.	Veterinary examination and sample collection for testing. Treat as appropriate for diagnosis.
Salivation and hyper-reactive.	One heifer in one small herd.	Northern Tasmania	Appeared stressed during handling. No other signs of an exotic disease eg lameness, ulcers between toes.	Allow time to settle. Examination in a crush may reveal cause, treat appropriately.
Sudden death in feedlot, carcase found bloated.	Five cattle in one large herd.	Southern Tasmania	May be caused by Clostridial bacteria, gassy or frothy bloat.	Best to have a postmortem carried out. Ensure Clostridial vaccination up to date, consider use of 8-in-1 Clostridial vaccine, add bloat oil to water troughs.
Warts	Several weaners in a number of herds	NW, Northern and Southern Tasmania	Small cauliflower-like growth anywhere on body but often around head.	Normally only seen in young cattle. Will normally self-cure if left alone. A vaccine can be made up if warts persist or are very extensive.



ALPACAS and CAMELS				
No cases reported				
GOATS				
Hernia	One doe in one small herd	Southern Tasmania	Bulge in abdominal wall, possibly from horning by another goat	Worth fixing because intestines can become trapped in the hernia. Vet may be able to repair.
PIGS				
No cases				
POULTRY				
No cases reported				
DEER				
No cases reported				

## Resources

### Farm biosecurity plans

Everything you need to know about farm biosecurity, for example how to make a biosecurity plan for LPA accreditation, can be found on: <https://www.farmbiosecurity.com.au/>

### Animal health declarations

Provide an animal health declaration when selling sheep, cattle, goats and camelids, and ask to see declarations when purchasing or moving these animals onto your property. See: <https://www.farmbiosecurity.com.au/toolkit/declarations-and-statements/>

**myFeedback** allows you to access information on carcase data, diseases and conditions detected in your sheep at slaughter through the National Sheep Health Monitoring Project. See: <https://www.mla.com.au/meat-safety-and-traceability/WhatismyFeedback/for more details.>

### Report any suspicion of an Emergency Animal Disease

Report any suspicion of an Emergency Animal Disease, especially slobbering/lameness in ruminants and pigs, sudden death, abortion or nervous signs in multiple pigs, to your vet or the Hotline on 1800 675 888. Early detection is critical if eradication is to be successful.

### Comply with the Ruminant Feed Ban

Protect access to our export markets by never feeding animal protein such as meat meal to any ruminant including sheep, cattle, goats, deer and alpacas. See: <https://animalhealthaustralia.com.au/australian-ruminant-feed-ban/>

### Maintain market access through strong tracing systems

Use NVDs and NLIS tags properly so that animals can be 'contact traced' quickly if there is an outbreak of an Emergency Animal Disease or a chemical residue problem. Especially important to list all PICs on NLIS tags in sale mobs of sheep on the NVD. See: <https://nre.tas.gov.au/agriculture/animal-industries/identifying-selling-moving-livestock>

### **If you have pigs, don't feed them swill**

Any material containing material of placental mammal origin (other than milk and milk by-products, properly rendered meat meal, or tallow) is swill. Swill which contains food from overseas can introduce devastating diseases such as foot and mouth disease or African swine fever into Tasmania. For more detail see:

<https://nre.tas.gov.au/biosecurity-tasmania/animal-biosecurity/animal-health/pigs/swill-feeding>

### **Never feed raw untreated offal or sheep meat to dogs or cats.**

Untreated offal from sheep, goats, cattle and pigs may spread hydatids if fed to dogs. Untreated sheep offal or sheep meat may spread other diseases such as sheep measles and bladder worm in sheep if fed to dogs, or Toxoplasma and Sarco if fed to cats. See:

<https://sheepconnecttasmania.files.wordpress.com/2023/07/sct-disease-factsheets-all.pdf>

### **Bucks for Brains**

If you have a sheep or cow showing neurological (nervous) signs you may be able to claim a subsidy for a post mortem investigation ([https://animalhealthaustralia.com.au/wp-content/uploads/2015/11/Bucks-for-Brains\\_Jun16\\_WEB.pdf](https://animalhealthaustralia.com.au/wp-content/uploads/2015/11/Bucks-for-Brains_Jun16_WEB.pdf))

### **Maintaining Tasmania's export markets:**

Information from these reports may be used to help convince our overseas trading partners that we don't have certain livestock diseases that they are concerned about, thus keeping our valuable export markets open and stopping risky imports coming in. For example, Tasmania exported approximately \$264 million worth of sheep meats and wool in 2020-21. See:

<https://nre.tas.gov.au/agriculture/facts-figures/tasmanian-agri-food-scorecards>

### **The National Sheep Industry Biosecurity Strategy**

The National Sheep Industry Biosecurity Strategy lies at the core of this program, see: [www.animalhealthaustralia.com.au/nsibs](http://www.animalhealthaustralia.com.au/nsibs)

### **Phone A Vet**

A telemedicine app that caters for production animals. Download the app from your usual provider. Can use video, photos, texting, you can select your vet. Experienced sheep, cattle, goat, camelid and pig vets are available. See: <https://www.phoneavet.com.au/>

### **Farm Biosecurity Apps**

If you want to know who is coming and going, warn visitors of risks and areas to avoid without spending your whole day on your mobile, you may like to consider an app that combines with a QR code on your farm entrances. See: <https://www.farmbiosecurity.com.au/biosecurity-at-your-fingertips/>

### **Paraboss**

The previous WormBoss, LiceBoss, and FlyBoss websites are now all in one place and have a wealth of information on, and tools to manage sheep, goat and cattle parasites.

<https://paraboss.com.au/>

Includes an online learning resource: <https://wormboss.com.au/learn-about-sheep-worm-control-in-australia/online-learning-tasmania-introduction/>