Tasmanian Livestock Health Report – December 2024

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 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.

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.
Arthritis in lambs: If you have a significant number of cases, it may be worth asking your vet about testing for Erysipelas. There is a vaccine for Erysipelas.
Campylobacter and Toxoplasmosis abortion in sheep: If you are unhappy with your lamb marking %, blood tests on dry ewes at weaning can detect Campylobacter and Toxoplasmosis antibodies as evidence of recent infection. Talk to your vet. The campylobacter vaccine course or booster should be completed before joining. There is no vaccine against Toxoplasmosis available in Australia.
Barber's pole worm: will start to build up from now on, especially on irrigated pastures. Watch for anaemia, exercise intolerance, high worm egg counts.
Bloat: has been seen in lambs on lucerne on misty overcast days.
Brown stomach worm: resistance to macrocyclic lactone (ML) drench family is common. High total worm counts being seen now.
Drench resistance: resistance to white, clear and macrocyclic drenches is relatively common and any other drench can also fail.
DrenchTest: Autumn is the best time to do a DrenchTest as all major worm species are more likely to be present. Draft off 150 lambs and do regular worm egg counts, when over 400 epg have a larval identification done to make sure enough of each major worm species are present.
Facial eczema: can be seen on irrigated ryegrass pastures from now on, mainly in dairy cattle but sheep can be affected too.
Flystrike: Body and breech strike common now.
Footrot and scald: eradication inspections can start now. Scald being seen on irrigated pastures.
Liver fluke: Eggs can be present in Fluketests now, but immature fluke may have only just started migrating through livers now, so blood tests may be the best way to detect liver fluke in live animals.
Lucerne red gut: seen as sudden death with a very bloated carcase on lucerne or clover. Offering roughage such as hay, straw or alternating between pasture and the lucerne/clover can help prevent cases.

Nematodirus: are active over the next few months in weaners. Scouring, sub-optimal growth rates, and some Nematodirus eggs in the egg count justify a drench.
Pleurisy: is common, slowing prime lamb growth rates and resulting in trimming at the abattoir. Check MLA's myFeedback to see if there is any data on your consigned lambs.
Pulpy kidney (PK): Make sure lambs get an extra booster if going onto rich feed such as clover or lucerne.
Ram check: Check your ram's testes, teeth, feet and condition score. Consider some high protein supplement in the 8 weeks lead up to mating.
Ryegrass staggers: Graze weaners on safer paddocks from now on.
Scabby mouth: in lambs on feet and/or mouth being seen now.

Biosecurity story of the month – FMD in Germany

Foot and mouth disease (FMD) has been detected in water buffalo in Germany. The herd has since been destroyed to prevent spread. This is the first outbreak in Germany since 1988. Europe last experienced FMD in 2011 (Bulgaria) and before that in the UK in 2007 due to a laboratory escape.

FMD is endemic (constantly present) in Turkey, the Middle East, Africa, Asia, SE Asia and parts of South America. FMD is also making a resurgence in Indonesia because booster vaccinations (due every 6 months) have not been given to some animals.

Australia is free of FMD, and the last outbreak was suspected in the 1880's. An outbreak now would make most of our sheep and cattle and their products practically worthless for many months due to our reliance on export markets.

This is why traceback is so important to us. Every day we shorten an outbreak by will save us millions of dollars. Hence our 'insurance policy' sheep, cattle, pig, and goat traceback systems that allow very rapid trace forward and back, allowing us to "get ahead of the disease" and stamp it out as fast as possible.

But the electronic tags can also pay their way in day-to-day production benefits here and now. Electronic tags in prime lambs allow growth rates to be monitored, the best store lamb suppliers to be identified and lambs with poor growth rates can be drafted off for an extra drench, testing or treatment.

Electronic recording eliminates human error – usually about 10% of records are incorrect when tag numbers are written down by a person - so electronic tags are really valuable for recording data and selecting your most productive animals.

Does treatment with B12, selenium or copper mean better growth rates or better fertility? Dot every second lamb or ewe down the race with a different colour until you have at least 50 treatment and 50 control animals. Draft off the treatment group, treat them and scan them. Scan the 'controls' but don't treat. Monitor growth rates or fertility (scanning rate, dry rate at marking or weaning) and determine whether the treatment does pay – you may save a lot of money on expensive treatments or you may prove that these treatments must be given to maximise profitability.

Diseases and conditions seen in December 2024

SHEEP				
Disease/condition	**Number of reports/ cases**	**Region**	**Details**	**Prevention, treatment, and other biosecurity advice or measures**
Abscess	One ram in one medium flock	Southern Tasmania	Chronic discharge from side of neck.	Surgical draining and antibiotics usually effective, not in this case that had to be euthanized as it lost weight and did not respond to treatment.
Body condition score low	A small number of adult sheep in one small flock	Northern Tasmania	Body condition less than BCS 2	Usually not enough feed. Worms, fluke, and specific deficiencies (copper, selenium, B12) and diseases eg footrot may also be involved.
Black Scours	A small percentage of tail end lambs in one large flock	Northern Tasmania	Diarrhoea, loss of weight, deaths.	Usually caused by black scour worm (Trichostrongylus vitrinus) but in this case stomach hair worm, brown stomach worm, Yersinia, coccidia and Campylobacter enteritis were involved as well. Treat with effective drench. May also need to use antibiotics/sulpha drugs under veterinary supervision on tail end lambs. See WORMBOSS web site.
'Bottle' teats	One ewe from one small flock	Northern Tasmania	Teats too large for lamb to get into mouth resulting in lamb loss soon after birth.	Check ewes at marking or weaning and cull.
Broken neck	One lamb in one large flock	Northern Tasmania	Lamb ran into gate and died.	Handle lambs calmly, control dogs.
Castration, late, by rings	A number of male lambs in one medium flock	Northern Tasmania	Six-month-old lambs with dead scrotal material	Lambs castrated at over 6 months of age must be given pain relief.
Chorioptes of lower legs	A number of sheep in one medium flock	Southern Tasmania	Pink skin and hair loss between hoof and fetlock and some higher, both front and back feet.	Chorioptes bovis (also causes scrotal mange) confirmed. Flock had not been treated for worms with macrocyclic lactone drenches for many years. Medium persistent moxidectin products use advised.
Coccidiosis in unweaned lambs.	One large flock.	Northern Tasmania	Scouring with low worm egg count but high coccidia levels in manure sample.	Usually respond well to sulpha drugs. Prevention by good worm control and nutrition. Don't allow lambs to concentrate on damp areas in paddock.
Dags	Widespread, often affecting a large proportion of the mob.	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 www.wool.com/flystrikelatest.
Dermo (lumpy wool)	A number of young sheep on one small	Northern Tasmania	Wool in hard blocks along topline.	Can treat with long-acting tetracycline during dry period, wait for 6 weeks and shear. Wool still valuable. Prevent by not yarding sheep when wet to skin. See:

	and one large flock.			https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0013/314320/9819-Lumpy-wool---Primefact-986.pdf
Flystrike	Widespread in Tasmania but not high numbers yet.	NW, N and Southern Tasmania	Breech, body, shoulder, poll strike in rams, pizzle strike. Foot strike (secondary to footrot or foot abscess). Sheep with footrot struck over ribs from lying on infected foot.	Observe for wet, 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: https://www.wool.com/simplifly
Foot abscess (heel abscess)	A small number of ewes in one large and one medium flock.	Northern and Southern Tasmania.	Swelling of one toe, hot, painful and discharge pus in acute stage. Most in healing phase now.	Keep mob average BCS to 3 - 3.3, autumn or pre-lamb shear, reduce interdigital skin injury, walk through 5-10% formalin footbath weekly. Treat with long-acting broad-spectrum antibiotics, keep feet dry eg on slatted floor of shearing shed, epsom salts on drainage point and bandage. Ensure fit to load if transported.
Focal symmetrical Encephalomalacia (FSE)	Ongoing problem affecting a number of lambs in one large flock	Northern Tasmania	A form of chronic pulpy kidney where sub-lethal levels of toxin damage the brain	Lambs show signs of blindness, 'head-pressing" – stand with head pushed onto a hard object such as a fence -, circling, wandering, convulsions, paddling, head stretched back, no response to Vitamin B1 injections, eventual death. Prevention: booster PK vaccinate ewes pre-lambing, PK vaccinate lambs at marking, control tapeworms, correct copper and selenium deficiencies. Use 8-in-1 vaccine (contains a lot more PK component) if you still get cases.
Footrot, virulent	Ongoing problem in one medium large flock.	Southern Tasmania	Active spread re-ignited after rain.	Summer paring and eradication inspections must start now so that you have time for a re-inspection while conditions are dry. Long-acting oxytetracycline injections under veterinary supervision are useful while conditions are dry. Cull chronic cases or move out of replacement breeding mob. 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: https://www.wool.com/globalassets/wool/sheep/welfare/other-husbandry/footrot--a-guide-to-identification-and-control-in-the-field---tas-2019.pdf
Hooves overgrown	Widespread	NW, Northern and Southern Tasmania	Hooves long and toes may curl up ("slipper feet") or wall of hoof can roll under (differentiate from footrot)	Pare hooves back into shape. Hooves neglected for a long time may grow a lot of excess toe horn and require careful paring back to avoid bleeding.
Lameness	A small number of sheep in one large flock.	Northern Tasmania	Reluctant to bear full weight on one leg.	Can be due to footrot, foot abscess, toe abscess, arthritis, injury and a number of other conditions. Examine foot and leg thoroughly, treat appropriately.
Nasal discharge, purulent, both nostrils	A number of young sheep in a number of flocks	NW, Northern and Southern Tasmania	Can be due to viral or bacterial infections. Rarely due to nasal bots.	If sheep are bright and alert no action required. If depressed, laboured breathing, deaths, veterinary advice should be sought.
Nematodirus	Lambs in one large flock	Northern Tasmania	Weaners scour with poor growth rates. Nematodirus	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. Note that worm egg counts may be

			egg counts may or may not be high.	artificially elevated if an animal has been off feed for a period of over 12 hours.
Nephrosis (kidney damage)	One lamb from one large flock	Northern Tasmania	Kidneys can be damaged by a number of toxins.	This one detected at postmortem and possibly related to chronic exposure to sub-lethal pulpy kidney toxin.
Ocular (eye) discharge both eyes	A number of lambs from one large flock.	Northern Tasmania	Could be first stage of Pinkeye	Best to leave alone and keep checking if possible, only yard if you have to.
Off-shears losses	Three hundred sheep in one large flock.	Southern Tasmania	Recently shorn sheep found dead after cold/wet/windy night	These had low body condition score. Fill sheep up with plenty of roughage (eg hay, silage) and a small amount of grain as well if possible. Place in most sheltered areas available – ideally a shed, otherwise lee side of hill, with vegetation cover to break wind.
Pastern itch	Small number of sheep in several flocks	Northern and Southern Tasmania	Probably Chorioptic mange mites or foot lice	Check feet for mite damage or lice and treat accordingly.
Photosensitisation	A number of lambs and some adult sheep in a large number of flocks	NW, Northern and Southern Tasmania	Skin reddened and peels off, mainly from back of both ears and some noses, backs, faces, backsides and lower shanks as well. Most of these are mild, only effecting backs of ears.	Check paddock for poisonous plants and pigment plants (eg storksbill, medics, wireweed). If severe, treat with antihistamines, antibiotics, if necessary (under vet supervision), offer deep shade, move to new paddock. Small numbers can have zinc cream smeared over affected skin.
Plant poisoning (suspected)	A number of lambs in one large flock	Southern Tasmania	Sudden deaths with no abnormalities on postmortem	Mallow was present (but usually only causes staggers) and wireweed (can produce nitrate poisoning and sudden death) were present.
Pneumonia	One lamb from one large flock	Northern Tasmania	An incidental finding at postmortem.	Early cases in front part of lungs. Antibiotic treatment of cases under veterinary supervision (best caught early). Reduce any stress factors. See https://animalhealthaustralia.com.au/wp-content/uploads/NSHMP-Pneumonia-Pleurisy.pdf
Pulpy Kidney	One lamb in one large flock.	Northern Tasmania	Lambs were vaccinated but only one lamb died.	Vaccinate ewes pre-lambing. Vaccinate lambs at marking and weaning. May need to use 8-in-1 or 3rd vaccination 2-3 months after booster if placing lambs on rich feed - especially if on grain, irrigated lucerne or clover.
'Rape scald'	A small number of lambs in one large flock	Southern Tasmania	A form of photosensitisation caused by the grazing canola not being mature enough.	Ideally take lambs off for another 2 weeks, but if you don't have other feed, provide deep shade, cover reddened areas of skin with zinc cream, consider antihistamines under veterinary supervision.
Redgut	Several lambs in one large flock	Northern Tasmania	Redgut seen on pure lucerne/clover. Seen as sudden death and rapid bloating.	Provide access to roughage.

			Dark red twisted intestines on postmortem.	
Scrotal mange	One ram in one large flock	Northern Tasmania	Usually seen in Merino rams but can affect other breeds. Unlikely to affect fertility unless more than 10 square centimetres of thickened skin/scabs on scrotum. Pasterns affected as well in severe cases.	The Chorioptes bovis mite lives on cattle and other species and survives for a number of days off the host so is hard to eradicate. Individually effected rams can be treated – see your vet.
Shelly toe	One sheep in one medium flock	Northern Tasmania	Curved separation of hoof wall from sole up hoof wall near front of hoof.	Conformational defect rather than a disease condition. Is heritable and can be selected against. Best to pare off separated hoof wall as dirt and manure can pack into the space and cause a form of toe abscess.
Shelly toe abscess	One ewe in one large mob	Southern Tasmania	Wet dirt and faeces pack up into the shelly toe cavity and an abscess form next to the top of the defect.	Pare off separated hoof wall and allow abscess to drain. Spray with antiseptic spray. Vet may prescribe antibiotics.
Solar abscess	One ewe in one large flock	Southern Tasmania	Pus under section of sole of one hoof.	Pare hoof to expose and drain all under-run areas. Anti-biotics and anti-inflammatories under vet supervision.
Tapeworm	A number of lambs in one large flock	Northern Tasmania	Tape worm segments (large rice grain size) seen in dung	Most scientific studies show that sheep tapeworms do not affect growth rates so drenching for tapeworms may not be justified. Are thought to slow passage of food through intestines and pre-dispose to pulpy kidney, so ensure that vaccination is up to date or treat with drench that covers tapeworms if losing lambs with pulpy kidney.
Toe abscess (chronic) with proud flesh	A number of ewes in one large flock	Northern Tasmania	Lame but no swelling, heat or under-running. Red proud flesh protruding from tip of toe.	Carefully pare back the toe and sole until all proud flesh has been exposed. The proud flesh does not have nerve tissue and can be cut off by a veterinarian and pressure applied to reduce bleeding. Hard horn can then grow back over the defect. Usually, no further treatment needed apart from antiseptic spray but antibiotics and anti-inflammatories can be administered by a veterinarian.
Tongue lesions	One lamb from one large flock	Northern Tasmania	Incidental finding at postmortem	May have been related to the primary cause of illness.
White muscle disease in lamb	One lamb in one large flock	Northern Tasmania	Whitish areas in main muscle groups seen at postmortem.	These were old scar tissue from earlier episode. Treat ewes with selenium injection, pre-lambing drench or vaccination with selenium, or with intra-ruminal pellets every 3 years or add selenium to fertiliser every 2 years. Affected lambs can be given oral selenium and can recover with good nursing.
Wool blind	One sheep in one medium flock	Northern Tasmania	Muffly faced sheep with wool totally obscuring vision.	Wig the sheep more often. Breed for open-faced sheep.

Worms	A number of flocks	NW, Northern and Southern Tasmania	Mainly moderate egg counts. Black scour worm still dominating, but some stomach hair worm, brown stomach worms and barber's pole worm starting to show up.	Differentiate from nutritional scour or coccidia by WORMTEST. Use effective drench. Check that drench is working by repeating egg count 10-14 days later. Try to plan 'clean' paddocks for weaned lambs and pre-lamb drenched ewes. See WORMBOSS at: http://www.wormboss.com.au/sheep-goats/programs/sheep.php
CATTLE				
Calf scours	One calf in one small herd	Northern Tasmania	May not have ingested enough colostrum in first 12-24 hours after birth.	Keep calf on cow but also give electrolyte to give 8-10 litres of fluid a day. Only use antibiotics under veterinary supervision. See https://www.dairyaustralia.com.au/animal-management-and-milk-quality/animal-health/calf-scours for more information
Cough in young cattle	One yearling in one small herd and several weaners in another small herd	Northern and Southern Tasmania	Can be due to lungworms, bacterial or viral diseases that infect the respiratory tract.	Treat with drench that covers lungworm. Antibiotic cover under vet supervision if show signs of pneumonia.
Crusty nose	Three weaners in one small herd.	Southern Tasmania	Crusting of bare areas just above the nostrils.	Possibly photosensitisation or IBR (Infectious Bovine Rhinotracheitis).
Dags/scour	A number of young and adult cattle in a number of herds	NW, Northern and Southern Tasmania	Dried faeces stuck on tail hair, many with evidence of fresh scour.	Scouring is the problem. Worms, nutrition (low dry matter diet, toxic plants eg capeweed), viral and bacterial diseases can all be involved.
Hair loss behind pin bones	One cow in one small herd	Northern Tasmania	May have been due to riding by other cows when on heat	Local skin treatments.
Hair loss back of tail head	Several steers in several herds	Northern Tasmania	Maybe due to rubbing back of tail head against the walls of the transport vehicle.	Don't pack cattle into transport vehicles too tight.
Hide damage	One bull in one small herd	Southern Tasmania	Horned cattle damage the hide of other cattle in the pen	Pen horned cattle together. "Tip" horns. Dehorn or breed polled cattle.
Hocks swollen	One large bullock in one small herd	Northern Tasmania	Can be due to pestivirus, phosphorus deficiency or infection.	Testing may lead to a diagnosis and treatment.
Lethargy, weight loss, anorexia, drooling, ataxia	Two cows in one large herd	Southern Tasmania	Blood tests showed inflammation	Cows responded to antibiotic treatment by vet.

Ocular (eye) discharge (clear, watery, both eyes)	A number of cattle 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, purulent, one eye	One cow from one large herd	Northern Tasmania	Most likely barley grass seed.	Control barley grass with intensive rotational grazing, herbicide or topping. Grass seeds should be removed from eye as soon as possible.
Ringworm	A single weaner each in two large herds	Northern and Southern Tasmania	Scaley circular areas of hair loss with thick whitish crust usually around head and neck.	Usually heal up eventually if left alone. Antifungal ointments or iodine can be rubbed into lesions. Can spread to people so precautions must be taken.
Sporadic bovine leucosis (suspected)	One yearling in one herd	Southern Tasmania	Swelling under jaw, mass with no pus on postmortem	Sporadic bovine leucosis is different from bovine leucosis and usually only occurs in cattle less than 3 years old. A swelling develops in lymph nodes ('glands') and continues to grow.
Vaginal discharge	One heifer in one small herd	Northern Tasmania	May have been due to normal heat or could reflect a vaginitis, metritis or abortion.	Diseases such as IBR (Infectious Bovine Rhinotracheitis) can cause a vaginitis in heifers.
ALPACAS and CAMELS				
No cases reported				
GOATS				
No cases reported				
PIGS				
No cases reported				
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: MLA's myFeedback 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 feed 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/dlm_uploads/2024/09/Bucks-for-Brains-Brochure.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 $272 million worth of sheep meats and wool in 2021-22. 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

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/