



## New pilot project provides holistic approach to endemic diseases

**A pilot project aimed at reducing the financial impacts of endemic diseases and other production conditions on farm and supply chain productivity in Australia began earlier this year.**

The sheep pilot Livestock Production Conditions Project (LPCP) has been developed by Animal Health Australia (AHA) together with sheep industry peak bodies in order to streamline governance costs, enhance collaboration and take a more holistic approach to addressing endemic conditions.

"The AHA-managed project will take a proactive approach to tackling sheep production issues, with greater emphasis on biosecurity and associated communication and extension activities," AHA's Executive Manager Biosecurity, Mr Duncan Rowland explained.

"It also aims to address the issues of lost production across the entire sheep value (supply) chain in order to mitigate animal welfare and market access risks. The project should ensure the value-add from animal health improvements is maximised at all stages of the sheep supply chain, from on-property to beyond the farm gate at the processor level."

The pilot project, which began in July and will run until June 2015, provides the framework for a nationally integrated approach to sheep production conditions.

The member-endorsed LPCP business plan's objectives are to:

- identify and fill gaps in work undertaken with, and by, research and development corporations across all sheep production conditions
- increase the efficiency and consistency of management (i.e. biosecurity practices, research and development, communications) of national sheep production condition projects
- provide a forum to involve all stakeholders in addressing sheep production condition issues

LPCP is coordinated by AHA through the recently established sheep industries LPCP Steering Committee comprising representatives from the Sheepmeat Council of Australia and WoolProducers Australia, Meat & Livestock Australia, Australian Wool Innovation, state governments, Australian Livestock and Property Agents Association, Australian Meat Industry Council and the Australian Veterinary Association.

**For more information contact: AHA Biosecurity Officer Rob Barwell, [rbarwell@animalhealthaustralia.com.au](mailto:rbarwell@animalhealthaustralia.com.au)**



*New pilot project for sheep will integrate and streamline existing endemic disease programs and projects. Photo: Phillip Down*

**STOCK HEALTH MONITOR (SHM) provides Australia's alpaca, cattle, goat and sheep producer communities with the latest information on avoiding, managing and controlling livestock production conditions, implementing best practice on-farm biosecurity measures and updates on the latest research and development. It is a partnership initiative between AHA and livestock industries in recognition that livestock production conditions impact the red meat value chain and Australia's market access certification requirements.**

**SHM is published twice year, in spring and autumn. Contributions are encouraged. If you have a piece you would like considered for SHM, please email [shm@animalhealthaustralia.com.au](mailto:shm@animalhealthaustralia.com.au)**

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Biosecurity planning is important during spring.

## Spring into action with your biosecurity planning

**Now that spring is well underway, livestock producers are reminded to have their biosecurity plans in place as many pests, diseases and weeds attempt to make a comeback after the winter lull.**

AHA's Executive Manager Biosecurity, Duncan Rowland said increased monitoring of stock, crops and pastures is an important biosecurity practise to implement this Spring.

"Spring time, particularly for the country's southern production regions, means warmer weather, longer days and hopefully, some wet weather. However, this combination means pastures can be inundated with weeds that can harm livestock," Mr Rowland said.

"Grazing pastures need to be monitored closely for outbreaks of poisonous and invasive weeds. During Spring make an effort to undertake additional inspections on your property to track and manage the spread of weeds. Producers should also consider developing a weed management plan and coordinating eradication or prevention programs with their neighbours.

"Warmer temperatures, combined with moist conditions can also encourage the spread of diseases like footrot. Increased monitoring of stock is vital in identifying early signs of disease and producers should not delay investigating and reporting signs of disease in their stock."

Spring also keeps many sheep, cattle and goat producers busy with lambing, calving and kid rearing. Mr Rowland said there were a number of biosecurity measures that can help prevent diseases and losses in new born stock during this critical time of year.

"Cattle, sheep and goat producers should familiarise themselves with the risks of Johne's disease infection in calves, lambs and kids," he said.

"Goat producers can download the *National Kid Rearing Plan* from the goat industry page on the *Farm Biosecurity* website ([farmbiosecurity.com.au](http://farmbiosecurity.com.au)) for information on minimising Johne's disease and caprine arthritis encephalitis.

"Dairy producers can download the *Dairy Australia 3 Step Calf Plan* on the Dairy Australia website ([www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)). This plan guides producers on steps to minimise the risk of bovine Johne's disease infections in newly born calves."

Mr Rowland also reminded producers of a heightened risk of stock losses through predation from wild and feral animals when new born animals arrive at the property.

"Importantly, with all new born stock on the property, producers should ensure steps are taken to minimise attacks from wild dogs, foxes and other predators," he said.

"Producers are encouraged to develop a wild and feral animal control program, regularly check and mend broken fences, promptly dispose of any carcasses lying around on the property and develop a coordinated approach with your neighbours to control ferals and wild animals in your area."

## A plan that doesn't kid around with CAE and JD

**Two slow-acting, insidious and incurable diseases afflict goats: caprine arthritis encephalitis (CAE) and Johne's disease (JD). However, the *National Kid Rearing Plan*, which can be downloaded for free from the goat industry page on the *Farm Biosecurity* website ([www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au)), offers Australian goat producers' actions that provide an alternative to watching animals suffer, counting the cost in lost production and spreading infection.**

Goat producers can minimise the risk of infection by using the same management strategies for both diseases. These activities are contained in the *National Kid Rearing Plan* which instructs producers to remove kids from their dams as soon as possible after birth. This should be done preferably before the kids have time to suckle and therefore raising them in hygienic conditions away from the rest of the herd for the first year of their life.

CAE is more virulent and infectious and more obvious in young goats than JD. CAE is primarily transmitted through colostrum, contaminated milk, pastures and everyday farming items like overalls, boots and milk buckets. Goats infected with JD or CAE may not show clinical signs until they are quite mature but, if they remain undetected, they can spread the disease throughout the herd.

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AHA and the Goat Industry Council of Australia (GICA) are embarking on a national campaign to encourage goat producers to use the actions in this simple management strategy to help eliminate both diseases from Australian goat herds. The plan is likely to be of most use to producers breeding or managing dairy goats and other intensively run goats.



*The National Kid Rearing Plan provides the information goat producers need to manage the risks of JD and CAE. Photo: Chris Lamin*

*The National Kid Rearing Plan* was developed jointly between GICA (on behalf of the national goat industry) and the state departments of primary industries.

The good news for all interested goat producers is that the *National Kid Rearing Plan* provides one set of simple and cost-effective actions that can help mitigate the risks of two diseases.

Goat producers are also encouraged to download a copy of the *National Farm Biosecurity Reference Manual – Grazing Livestock Production* from the *Farm Biosecurity* website's 'Toolkit' page ([www.farmbiosecurity.com.au/toolkit/](http://www.farmbiosecurity.com.au/toolkit/)). The manual covers vital grazing livestock biosecurity practices which can also help goat producers implement ways to prevent JD and CAE coming onto their properties.

By raising kids in a disease-free environment and undertaking the correct testing procedures for both diseases, goat producers can progressively eliminate the diseases from their herds.

When the plan is backed by good on-farm biosecurity practices, in addition to lifting production, goat producers will receive a higher assurance score on their National Goat Health Statement.

The key steps in the plan are:

- Separate kids from dams as soon as practical after birth (preferably before they have suckled but no later than two hours) and move to a kid rearing area that is thoroughly cleaned to remove faecal contamination.
- Feed newly born kids on pasteurised colostrum or colostrum from a herd with a current negative CAE and JD herd tested status.
- Rear kids on artificial milk replacer, pasteurised goats milk, or milk from goats in a low risk herd (eg a GoatMAP herd or a herd that has a negative tested status).
- Prevent contact with adult goats, sheep, cattle, alpacas and deer, or the pastures they have grazed for at least 12 months.

Any kid housed on pastures with other livestock, can only be in contact with animals that are from:

- a MAP herd or flock
- have a Dairy Score of 7
- have a Beef Only or Q Alpaca status
- sheep sourced from areas with an audited Regional Biosecurity Plan which includes ovine Johne's disease.

## Sydney Uni making improvements to JD tests

*Dr Karren Plain, Research Fellow, Faculty of Veterinary Science, University of Sydney*

**New testing technologies, developed by the University of Sydney, are making Johne's Disease (JD) testing easier, more accurate and efficient.**

### New culture medium

Two of the research objectives for the University of Sydney team have been to provide new diagnostic tools to improve JD testing and identify effective vaccines for potential commercial use in the future.

Culture continues to be used in diagnosis and in the confirmation of an index case of JD on a property. The University of Sydney has taken a lead role in developing new technology relating to culture and now supplies a new medium to grow JD-causing bacteria (*Mycobacterium avium* subsp. *Paratuberculosis*). The new medium, known simply as M7H9C, is cheaper than the 20 year-old medium it replaced and is used in animal health laboratories across Australia.

### Advanced testing procedure for cultures

Recently, the University developed a breakthrough testing procedure that allows for up to 96 culture samples to be prepared for polymerase chain reaction (PCR) testing at any one time. This new procedure is based on magnetic particle technology that binds to DNA and a semi-automated technique to wash and prepare the DNA for the PCR test. This new procedure is suited for high sample numbers and allows rapid processing to help speed up the entire testing process. Currently the JD bacteria cultures take 12 weeks to grow before a positive or negative result can be provided.

This new procedure follows on from collaborative work conducted with the Elizabeth Macarthur Agricultural Institute



*New testing procedures and culture mediums are making JD tests more accurate and efficient. Photo: Karren Plain*

on the HT-J rapid faecal DNA test and demonstrates how research is continuing to produce outcomes that are directly relevant to the National Johne's Disease Control Program in Australia.



## Myth busted – no sheep breed is resistant to JD

A recent study by the University of Sydney has dispelled the myth that some sheep breeds are more susceptible to Johne's disease than others. The 14 month study, conducted over 2012-13 determined that all sheep breeds can contract the disease, however some breeds simply develop clinical signs later than others.

Douglas Begg, Senior Lecturer at the University's Faculty of Veterinary Science, said four breeds of sheep were included in the study with each animal given the exact same dose of the bacteria.

"We used Merino, Border Leicester, Poll Dorset and first-cross Suffolk-cross Merino lambs in the trial. The sheep of the same age were exposed to the same dose of *Mycobacterium avium* subspecies *paratuberculosis*, the bacterium that causes Johne's disease," Dr Begg said.

"We found that all the breeds developed infection and disease, but there was a big difference in the number of animals from each breed that developed clinical disease by the end of the trial".

"A major finding from this study was that many more sheep had the infection but did not develop visible disease. The proportion of infection ranged from 45 per cent to 75 per cent.

"Approximately 44 per cent of the Merino, 36 per cent of the Suffolk-Merino cross and 11 per cent of the Border Leicester and Poll Dorset sheep developed clinical Johne's disease. These sheep lost weight and had to be culled.



Border Leicester sheep were one of four breeds used in the study to determine breed susceptibility to JD.

"The take home points are that all breeds of sheep that were tested are susceptible to Johne's disease but some breeds such as Border Leicester and Poll Dorset take longer for disease to become apparent", Dr Begg said.



A Merino lamb is orally dosed with JD, as part of the study to determine breed susceptibility to the disease. Photos: Douglas Begg

## University of Melbourne helping to beat sheep mastitis

**Mastitis is the term for a bacterial infection of the udder. It is most common in ewes raising multiple lambs or with high milk production. Most cases occur during the first weeks after lambing or immediately before weaning.**

Little information is currently available on the underlying causes of mastitis in Australian sheep. However, the University of Melbourne mastitis research group is studying this disease across a wide geographic range to evaluate the bacteria responsible and investigate potential therapeutics or preventive strategies.

### How does the disease occur?

Research by the group shows both blue and black variations of mastitis are caused by either bacterial organisms *Staphylococcus aureus* or *Mannheimia haemolytica*. The group experimented with how the two strains of bacteria cause the disease. To do this, two exercises were undertaken to identify how the sheep became infected.

The first exercise involved injecting the bacteria directly into the sheep's teat. Within 48 hours the sheep was ill. The other test, conducted by the group, simply involved bathing the teat in a solution of the bacteria. The sheep showed no symptoms at all and was not affected.

The two tests determined that the teat end and associated lymphoid tissue in the udder appear vital in minimising primary infection. This reinforces the current understanding that ewes are most susceptible to mastitis after having received injuries to their teats such as through shearing cuts or lambs biting in late lactation. Other nutritional, environmental, physical or infectious factors also provide the right conditions for the disease to progress.

### What are the signs to look for?

The most common and more obvious signs of mastitis include:

- lameness
- ewes going off their feed or not coming to the feed trail
- lambs not meeting their expected growth rate

Subclinical mastitis is less obvious during a brief flock inspection. Producers who suspect they have infected sheep should also look for firm, hot and/or blackening udders.

### How can you treat mastitis?

Early treatment provides some chance of recovery, as after 48 hours of being infected with these bacteria the sheep become very sick and by day three they usually die.

Both *Staphylococcus aureus* and *Mannheimia haemolytica* are susceptible to most antibiotics, however *Staphylococcus aureus* does have some resistance to penicillin. Most properties the research group visited seemed to have a predominance of one or the other rather than having a mix of both bacteria present.

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Producers should consult with their veterinarian if they suspect mastitis in their ewes. Tetracycline antibiotics are a good option for treatment as fewer injections are required and they maintain better therapeutic concentrations of the antibiotic in sheep compared to using penicillin.

### How can the disease be controlled if it is present in the flock?

#### *Remove sick ewes and their lambs from the flock*

Lambs can carry the bacteria that cause mastitis in their nose and throat and are very capable of spreading it to other ewes when 'robbing' them of their milk. This can be particularly important around self-feeders etc, where the ewe doesn't really know or care which lamb is getting a drink.

### What actions be taken to prevent mastitis coming on to the property?

#### *Take care when introducing new ewes*

Try to keep newly introduced ewes separate from the existing flock where possible, particularly if arriving close to the lambing season. This will give them a chance be exposed to the bacteria and build their own natural resistance.

Newly introduced ewes can bring in a different strain of mastitis-causing bacteria for which the existing flock has not built up a tolerance. On the other hand, the same issue exists for the newly introduced ewes as they become exposed to the existing flock's bacteria.

The highest risk group of sheep for mastitis are stud ewes recently introduced onto British breed sheep properties.

#### *Rotate feeding stations*

Spread feed sources as much as possible. *Mannheimia* can persist in the environment for a number of days so potentially feeding in one site may increase the density of the bacteria and increase the potential for infection.

#### *Match feed supply to milk production*

Overfeeding ewes can result in excess milk production for the lamb requirement, particularly in the first few weeks of lactation in high milking breeds. This can leave the teat open and more likely to become infected. Underfeeding in late lactation can lead to lambs damaging the end of the teats via biting – this is reasonably obvious on examination.

#### *What doesn't work?*

A number of producers in the sheep breeding industry are applying double doses of 5 in 1 or 6 in 1 vaccines in the belief that it prevents mastitis. There appears to be no benefit in applying the products as a double dose and there is no strong evidence to suggest otherwise. Regardless of how and when producers are vaccinating their stock, a frequent and regular stock monitoring program should be implemented as a key biosecurity measure to prevent and control mastitis.

### What other work is being done by the mastitis research group?

#### *Subclinical mastitis is more common than we think*

Clinical mastitis – where the disease is clearly presenting with obvious symptoms, may just be tip of a metaphorical mastitis iceberg. More samples are required from ewes at weaning by the end of this year and then the research group will start working on data analysis from about 5000 milk samples from eastern Australia.

Subclinical mastitis – where the disease is present without symptoms, is probably a far more common and potentially more important economic issue than it is currently understood to be.

The group is undertaking further research into subclinical mastitis. It is estimated that subclinical mastitis is a lot more common in some terminal sire studs, with a potential infection rate of 20–30 per cent and up to 60 per cent of ewes.

The research group has not yet completed all the data analysis and it will take some months to analyse several thousand milk collections from ewes at weaning.

#### *Other work*

The research group is also looking at potential vaccine options and identifying risk factors to provide better prevention and information for producers. There is, for example, potential for a *Mannheimia* vaccine. Work by the group's recent PhD graduate, Lida Omaleki is investigating potential targets for vaccines.

The research group has also identified high stocking rates, such as feedlots, that create a risk for creating 'contamination zones' that encourage the disease. Extremes in weather such as high rainfall and low temperatures also generate the right conditions for the disease to flourish. Scabby mouth is also an important factor in some outbreaks as it allows bacteria entry to the teat.

The research group is always interested to hear from producers and their advisers about their animals as they might be able to get a better outcome for producers through the research program.

**For more information, email Stuart Barber on [srbarber@unimelb.edu.au](mailto:srbarber@unimelb.edu.au)**



*Early stages of mastitis demonstrating a swollen right gland with left gland suckled by lambs.*



*Milking sheep to check for subclinical mastitis at the end of lactation in Merino and first-cross ewes in a purpose built handler. Photos: Stuart Barber*

**With spring being the season for footrot, this edition of *Stock Health Monitor* includes three informative and helpful articles about this serious, common and costly disease.**

**The articles in this edition include tips to help producers avoid, control and eradicate the disease, information on the latest research being undertaken and a first-hand account of two experienced SA sheep producers who had the disease confirmed on their properties.**

## Keep an eye out for lame sheep

Footrot has been around for as long as there have been sheep in Australia. At the mere mention of the word many people suffer flashbacks to back-breaking school holidays spent in sheep yards trimming feet and that unforgettable smell.

Despite the clichés, footrot remains a challenging disease to diagnose and eradicate. Infected sheep can remain carriers during dry times, showing no signs of lameness. As soon as moist conditions return, the disease can re-emerge and rapidly spread through a flock within two to three weeks. Understandably this can come as a complete shock to the producer and possibly their neighbours if the fences are not in great condition.

From a distance, a mob of sheep with footrot could look like they have foot abscess or even pregnancy toxemia. These conditions can happen together if virulent footrot strikes heavily.

Whenever lame sheep are seen, it is vital that a number of them are caught and examined properly so the true cause can be found. Any condition that stops sheep being able to feed will limit their production and may even cause deaths, certainly if pregnancy toxemia occurs.

Some conditions such as foot abscess or strawberry footrot may be obvious on examination, but any condition where there is reddening of the skin between the claws of the foot, or under-running of the soles of the feet should be investigated by a veterinarian as soon as possible. In NSW footrot is a notifiable disease and should be reported to a government vet within 24 hours of being noticed.

In NSW footrot is classified as either the benign or virulent form. The diagnosis is not always simple and must be done by an experienced veterinarian according to state policy. Virulent footrot has almost been eradicated from NSW, with less than one per cent of the state's flocks infected. Flocks with virulent footrot are reported from time-to-time and most commonly the source of infection is traced to sheep introduced from interstate.

Virulent footrot costs producers dearly in loss of production, costs of treating affected sheep and loss of market access.

If you have purchased sheep during dry times, watch them carefully once the rains come and don't ignore lame sheep. Check them early and get an accurate diagnosis to limit the losses. Virulent footrot can be eradicated but it is much easier the earlier it is found.



Late stage footrot in sheep.  
Photo: Samantha Allan

## Help on the way for Tassie footrot sheep

Virulent footrot is the most serious disease affecting sheep in Tasmania, due largely to the unique environmental conditions that create longer periods in which the disease can spread. Meat & Livestock Australia (MLA) and Australian Wool Innovation (AWI) are working to help producers get the upper hand on the disease.

### New polymerase chain reaction (PCR) test and vaccine developments underway.

MLA has funded the University of Sydney footrot research team (led by Professor Richard Whittington and Dr Om Dhungyel) to develop a direct PCR test for footrot strain identification, virulence testing and to improve the existing diagnostic tests. In Tasmania, Dr Bruce Jackson from the Department of Primary Industries, Parks, Water and the Environment (DPIPWE) and the staff at Mt Pleasant Animal Health Laboratory are assisting the University of Sydney research team with the development of this test.

Rapid and cheaper strain and virulence testing will assist producers in the control and eradication of virulent footrot where use of specific footrot vaccines are part of the treatment program. Initial trials of specific footrot vaccine on properties in Tasmania in 2013, gave encouraging results about the usefulness of these vaccines in controlling footrot.

In addition to the work being undertaken to develop better PCR tests, Kim Haywood from the Tasmanian Farmers and Graziers Association is working with Sydney University and a commercial vaccine manufacturer to gain Australian Pesticides and Veterinary Medicines Authority (APVMA) approval for the production of

bivalent footrot vaccines. Ms Haywood is hopeful that the APVMA will grant the vaccine manufacturer a 'minor use' permit this year to allow producers access to the vaccines.

Footrot flourishes and spreads in damp conditions with average daily temperatures of 10°C or higher for four to five days. Dry and cooler conditions are known as 'non-spread periods'. In some years, the Tasmanian summer and autumn seasons with non-spread conditions are very short and in some cases are non-existent, particularly in high rainfall areas and on irrigated pasture.

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The limited non-spread periods do not provide enough time for Tasmanian producers to eradicate virulent footrot. However, with access to an affordable strain-specific vaccines, combined with accurate and affordable strain and virulence testing, eradication programs in Tasmania could succeed.

#### Cost benefit analysis tool

Another project underway in Tasmania is the development of a cost benefit analysis tool for producers to use in footrot eradication. AWI has provided funding support for this project. The project will develop an economic model to compare costs and benefits of footrot eradication, including eradication by conventional, specific vaccine and non-

specific vaccine methods at the single property and regional basis.

Through this, a calculator will be developed for use by producers, vets and consultants to make more informed decisions about undertaking a footrot program on farm and to look at the feasibility of area-wide control/eradication programs. A Tasmanian agricultural consulting firm is assisting DPIPWE with this aspect of the project.

As part of the AWI funded project, improved footrot extension material for producers will be developed and delivered. James Tyson from Sheep Connect Tasmania is helping Bruce Jackson with this part of the project.



*Dr Om Dhungyel and Bruce Jackson are looking into ways footrot can be managed and eradicated in Tasmania.  
Photo: James Tyson*

## CASE STUDY

### Managing footrot in the upper Southeast of South Australia

*Jeremy Rogers, Senior Veterinary Officer, Primary Industries and Regions South Australia (PIRSA)*

**Two sheep producers, one with Dorpers and the other with Dorset rams, located in the south-east region of South Australia, engaged their local private veterinarian to treat unusual lameness in their animals over the 2013 spring. The lameness turned out to be footrot which is not common in the area, or in these breeds of sheep.**

Both producers were experienced and had been running sheep for some time, however, they had never previously experienced footrot. Vet samples confirmed *Dichelobacter nodosus* (the causative agent of footrot in sheep) was present and successfully treated the animals with two different antibiotics. However, some sheep required several treatments.

In addition to providing treatment, the vet also contacted Primary Industries and Regions South Australia (PIRSA) and an examination was carried out and further samples were taken. As a result of these incidents of footrot, the two affected producers are developing property disease management plans (PDMP) and further inspections are planned by PIRSA.

#### Take home messages for South Australian vets and producers:

- Local vets play a critical role in helping industry and government respond to and manage notifiable endemic diseases such as footrot.
- Vets should be well versed on endemic diseases in their regions and be clear on what diseases need to be reported to the state government.
- Modern and less common breeds of sheep can and do become infected with footrot just like traditional breeds such as Merinos. Footrot does not discriminate and every sheep producer should take the necessary biosecurity measures to avoid the disease.
- Producers need to remember that footrot is introduced onto a property by carrier sheep that may not be lame at the time of purchase. However, under the right conditions with warm wet weather, symptoms will usually develop within a few weeks.
- Producers may not be sufficiently aware of the benefits of effective biosecurity plans to manage most endemic diseases that have the potential to impact their business.
- Requesting a fully completed and signed Sheep Health Statement for all sheep introduced onto a property is a sensible first step to avoiding diseases such as footrot.
- The operational aspects of the South Australian footrot control program, include the development of on-farm PDMPs to assist producers eradicate the disease.



*Dorpers (pictured) and Dorset sheep breeds in south-east South Australia became infected with footrot in the 2013 spring.  
Photo: Peter Dagg*

## New NSW OJD biosecurity plans making a real difference

*Dr Jillian Kelly, NSW District Veterinarian, Central West Local Land Services*

**Local sheep producers are reaping the benefits as an outcome of two ovine Johne's disease (OJD) Regional Biosecurity Plans (RBP) in the Nyngan and Coonamble districts in NSW.**

The Nyngan and Coonamble RBPs were established in July 2013 in response to the changes in the National OJD Management Plan 2013–2018.

Each district has an active OJD Advisory Committee made up of producers, agents and the Local Land Services (LLS) District Veterinarian, who provides technical advice to the two groups.

There are currently no cases of OJD in both regions and there have been excellent submissions of Sheep Health Statements (SHS) to the LLS District Veterinarian who monitors sheep movements into the district.

The flow-on effect has been an improvement in general biosecurity awareness. All participating producers have implemented a Property Livestock Biosecurity Plan and because they are requesting SHS's when buying sheep, they are also assessing the risk of bringing in lice, brucellosis and footrot to their property.

Both the Nyngan and Coonamble RBPs have strong producer support, active local committees and a high level of understanding of the groups' guidelines. This will help ensure their on-going sustainability and growth in the future.



*Dr Jillian Kelly, of the Central West Local Land Services, advises producers participating in the Nyngan and Coonamble Regional Biosecurity Plans. Photo: Ritchie Markey*

## New bovine Johne's disease resource for cattle producers

**Cattle producers now have a new tool to help avoid and control bovine Johne's disease (BJD) on their properties with AHA comprehensive suite of BJD pages on the AHA website ([www.animalhealthaustralia.com.au/programs/johnes-disease/bjd-home-page/](http://www.animalhealthaustralia.com.au/programs/johnes-disease/bjd-home-page/)).**

These new web pages provide the latest, up-to-date information on the disease and are also useful for vets, stock agents, agriculture shows, breed associations or anyone associated with the dairy and beef cattle industries.



*Everything cattle producers need to know about BJD is available on the AHA website.*

The web pages include:

- important information about Australia's BJD strategic plan
- contact information for producers seeking further assistance
- BJD-related documents for further reading
- recommended biosecurity practices to avoid the disease
- testing and diagnosis information.

BJD is an incurable infection of cattle and like ovine Johne's disease, it is caused by a bacterium (*Mycobacterium paratuberculosis*) that lives primarily in the intestines of infected animals. It causes the intestinal wall to thicken and reduces the normal absorption of nutrients from grazing. Symptoms include wasting and chronic diarrhoea. BJD results in lost production and causes infected animals to starve to death.

Cattle infected with BJD can often take months or even years before showing clinical signs and with the right conditions the bacteria can survive for long periods in the environment. These two factors are another reason why the disease can spread easily with little warning.

**The Farm Biosecurity website ([www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au)) also has a handy set of fact sheets about BJD in beef cattle that can be downloaded from the beef cattle industry page – simply scroll down to the resources section.**



## Ovine brucellosis – what you need to know

Samantha Allan, Senior Veterinary Officer – Sheep health, NSW Department of Primary Industries

**Ovine Brucellosis, otherwise known as ‘OB’ or ‘bruco’, can have a significant impact on a sheep breeding enterprise. Sheep producers should take measures to avoid introducing the disease, be on the lookout for signs and symptoms and seek advice to eradicate the disease if it is found.**

OB predominantly affects rams by reducing their fertility and infection can be spread from ram to ram directly or via the ewe. Ewes rarely become chronically infected but can infect clean rams by exposing them to infected semen from a recent previous mating. OB-infected rams can still appear well and they will still serve ewes.

Signs that OB might be present in a flock include:

- a need to increase ram joining percentages to maintain adequate lambing numbers.
- early losses of pregnancies which will be noticed as ewes return to service
- extension of lambing periods
- a reduction in the number of lambs being born.

Abortion due to OB is not commonly reported in Australia, but can occur. If reproductive performance is not at the level expected in a flock, the owner should consider having their rams tested for OB by their vet. Unfortunately, OB is still common in commercial sheep flocks. There is no treatment for infected rams and infected animals should be culled. Ewes generally recover within a few weeks and can then breed normally in the same joining season.

OB is introduced into a clean flock via sheep movements. This could be from buying rams which are not from an OB accreditation scheme stud or from visiting infected stray sheep.

Producers can protect their flocks from infection with some basic biosecurity measures including:

- maintaining boundary fencing
- reinforcing fences in sections where there are higher risks of disease spread (for example due to the type of stock kept next door or wildlife traffic causing damage)
- installing double fencing
- grazing low risk animals such as wethers or pregnant ewes in paddocks adjacent to other neighbours' rams
- running newly introduced rams separately from existing ram mobs until you are sure they are free of disease
- always sourcing rams from studs that are accredited under the relevant state OB-accreditation program.

If strays are found in with rams or unjoined ewes, they should be caught and any rams amongst them should be palpated and blood tested for OB before returning them to their owner. If they are simply put back over the fence the risk remains unknown.



*OB predominantly affects rams by reducing their fertility.*

Eradicating OB from a flock can be a very costly exercise and if the ram mob is large, it may not be possible to achieve in one season so it is advisable to seek advice from your veterinarian if you suspect OB to be present.

## Buy a *Farm Biosecurity* farm gate sign today

**If it can move, it can carry diseases, pests and weeds.**

Signs can be used to indicate to visitors the importance of following biosecurity procedures on your property. This 900 x 600 mm *Farm Biosecurity* gate sign is available for just \$40, including postage and handling to anywhere in Australia. Printed on 5 mm thick corflute they include four eyelet holes to attach the sign to a gate or fence.

To buy your sign today, visit [www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au)



## Number of known infected herds and flocks, June 2014

### CATTLE

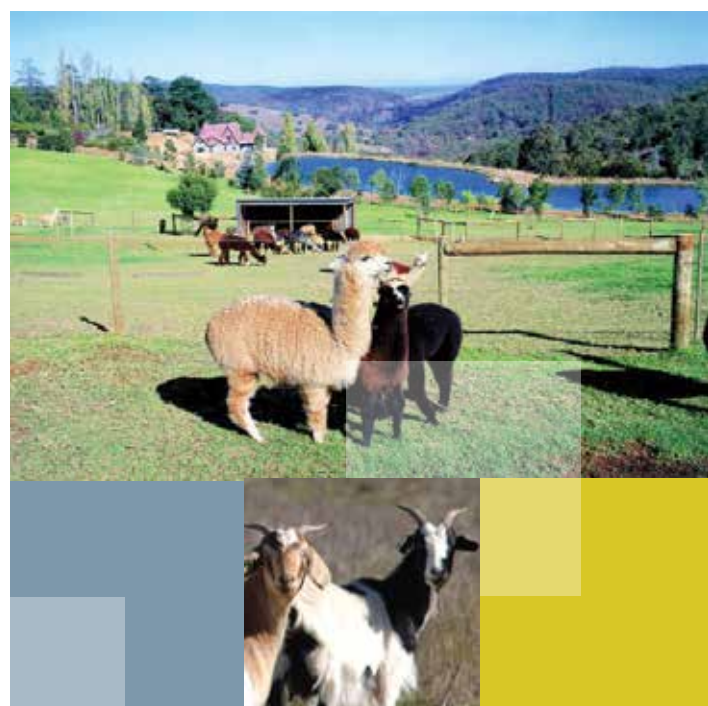
#### Number of known infected cattle herds

State	Sept 2013	Dec 2013	March 2014	June 2014
NSW	124	124	124	124
QLD	8	6	6	5
SA	56	56	54	53
TAS	39	39	39	39
VIC	918	887	917	917
<b>TOTAL</b>	<b>1145</b>	<b>1112</b>	<b>1140</b>	<b>1138</b>

### GOAT

#### Number of known infected goat herds

State	Sept 2013	Dec 2013	March 2014	June 2014
NSW	3	3	3	3
QLD	1	1	1	1
SA	1	1	1	1
TAS	4	4	4	4
VIC	8	9	9	10
<b>TOTAL</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>



## Number of assessed herds and flocks in MAPS, June 2014

ALPACA	MN1	MN2	MN3	TOTAL
NSW	2	8	20	30
Qld	0	0	0	0
SA	0	1	4	5
Tas	0	0	0	0
Vic	0	0	1	1
WA	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>9</b>	<b>25</b>	<b>36</b>

CATTLE	MN1	MN2	MN3	TOTAL
NSW	44	50	72	166
Qld	0	0	0	0
SA	14	42	55	111
Tas	7	16	20	43
Vic	19	26	34	79
WA	0	0	0	0
<b>TOTAL</b>	<b>84</b>	<b>134</b>	<b>181</b>	<b>399</b>

GOAT	MN1	MN2	MN3	TOTAL
NSW	7	4	1	12
Qld	0	0	0	0
SA	0	2	5	7
Tas	0	0	0	0
Vic	0	0	1	1
WA	0	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>20</b>

SHEEP	MN1	MN2	MN3	TOTAL
NSW	10	11	87	108
Qld	0	1	0	1
SA	13	19	88	120
Tas	1	3	13	17
Vic	7	2	12	21
WA	0	1	0	1
<b>TOTAL</b>	<b>31</b>	<b>37</b>	<b>200</b>	<b>268</b>

## Contacts

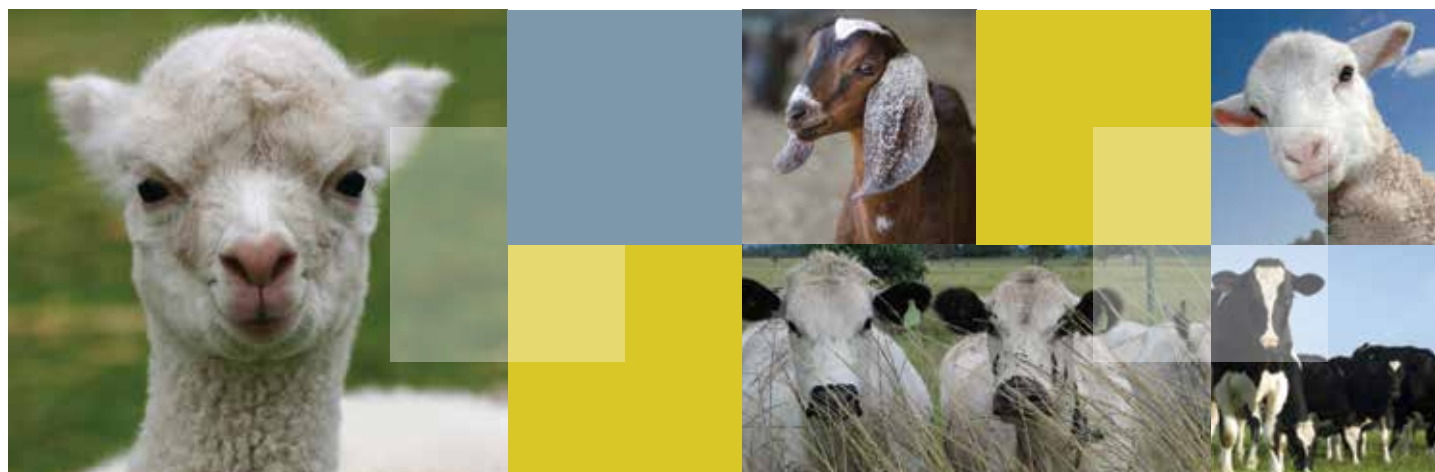
For further information on any of the items in this newsletter please contact Lorna Citer, Manager Endemic Diseases, Animal Health Australia at [shm@animalhealthaustralia.com.au](mailto:shm@animalhealthaustralia.com.au), on (02) 6203 3922 or visit the Animal Health Australia website at [www.animalhealthaustralia.com.au](http://www.animalhealthaustralia.com.au)

### OJD

NAME	STATE	COMPANY	PHONE	EMAIL
Dr Sam Allan	NSW	Department of Primary Industries	02 6763 1103	<a href="mailto:sam.allan@dpi.nsw.gov.au">sam.allan@dpi.nsw.gov.au</a>
Dr Lawrence Gavey	QLD	Department of Employment, Economic Development & Innovation	(07) 4688 1303	<a href="mailto:lawrence.gavey@daff.qld.gov.au">lawrence.gavey@daff.qld.gov.au</a>
Dr Peter Nosworthy	SA	Primary Industries and Resources	(08) 8762 9140	<a href="mailto:peter.nosworthy@sa.gov.au">peter.nosworthy@sa.gov.au</a>
Dr Rowena Bell	TAS	Department of Primary Industries, Parks, Water and Environment	(03) 6359 2148	<a href="mailto:Rowena.Bell@dpipwe.tas.gov.au">Rowena.Bell@dpipwe.tas.gov.au</a>
Dr Alison Lee	VIC	Department of Environment and Primary Industries	(03) 5561 9927	<a href="mailto:alison.lee@dpi.vic.gov.au">alison.lee@dpi.vic.gov.au</a>
Dr Anna Erickson	WA	Department of Agriculture and Food	(08) 9881 0211	<a href="mailto:anna.erickson@agric.wa.gov.au">anna.erickson@agric.wa.gov.au</a>

### BJD

NAME	STATE	ADDRESS	PHONE	EMAIL
Dr Graham Bailey	NSW	Primary Industries, Biosecurity, Industry & Investment NSW	(02) 6391 3455	<a href="mailto:graham.bailey@dpi.nsw.gov.au">graham.bailey@dpi.nsw.gov.au</a>
Dr Lawrence Gavey	QLD	Department of Employment, Economic Development & Innovation	(07) 4688 1303	<a href="mailto:lawrence.gavey@daff.qld.gov.au">lawrence.gavey@daff.qld.gov.au</a>
Dr Jeremy Rogers	SA	State Flora	(08) 8539 2110	<a href="mailto:jeremy.rogers@sa.gov.au">jeremy.rogers@sa.gov.au</a>
Dr Debra Grull	TAS	Department of Primary Industries, Parks, Water and Environment	(03) 6336 5306	<a href="mailto:debra.grull@dpipwe.tas.gov.au">debra.grull@dpipwe.tas.gov.au</a>
Dr Cameron Bell	VIC	Department of Primary Industries	(03) 5430 4545	<a href="mailto:cameron.bell@dpi.vic.gov.au">cameron.bell@dpi.vic.gov.au</a>
Dr Tom De Ridder	WA	Department of Agriculture and Food, Western Australia	(08) 9194 1420	<a href="mailto:thomas.deridder@agric.wa.gov.au">thomas.deridder@agric.wa.gov.au</a>
Dr Susanne Fitzpatrick	NT	Department of Resources NT	(08) 8999 2123	<a href="mailto:susanne.fitzpatrick@nt.gov.au">susanne.fitzpatrick@nt.gov.au</a>





## News roundup



### HAVE YOU SPOTTED ANYTHING UNUSUAL?

Animal Health Australia's (AHA) revamped *Spotted anything unusual?* campaign has been launched to remind producers to be on the lookout for symptoms of unusual or exotic livestock diseases that have the potential to devastate Australia's livestock industry and impact human health.

Distribution of the new fridge magnets that feature the slogan *Look. Check. Ask a vet.* kicked off the revamped *Spotted Anything Unusual?* campaign.

The magnets are being distributed around the country through the Livestock Biosecurity Network and AHA's livestock industry members.

The magnet set includes eight individual designs featuring the screw worm fly (considered to be the most serious exotic pest threatening Australia's northern livestock production) and images of animals from Australia's major livestock industries:

- beef cattle
- dairy
- goats
- horses
- pigs
- sheep meat
- wool

Animal Health Australia's Executive Manager Biosecurity, Duncan Rowland said the *Spotted Anything Unusual* fridge magnets are designed to enlist the help of Australia's producers to keep a lookout for unusual symptoms as part of their existing stock monitoring routine.

"Early detection of, and quick response to, existing endemic diseases is an important on-farm biosecurity practice. However, the message we want to give producers is that by proactively monitoring their livestock they can help their own industry and potentially the

nation, by reporting symptoms that could be caused by an exotic disease like foot and mouth disease.

"Producers should always be on the lookout for signs of disease and if they see unusual symptoms they should report them straight away. Early intervention is vital in an emergency animal disease outbreak.

"If you suspect a pest or disease outbreak or have seen something unusual and you're not sure whether it's an exotic pest or disease, report it. Don't worry how insignificant it may be. Small signs may be an early indication that something's wrong," Mr Rowland said.

**Suspicious of a serious livestock disease must be reported to your local government vet, your private vet, a stock inspector or call the free Emergency Animal Disease Watch Hotline on 1800 675 888.**



## CATTLE HEALTH STATEMENTS – YOUR BEST DEFENCE AGAINST DISEASE

**Cattle producers are being reminded that they should always use the National Cattle Health Statement (CHS) when buying, agisting or selling cattle.**

A CHS is the best risk assessment tool when trading cattle whether it be locally, interstate or for overseas export. Aside from the obvious fact that they are a vital weapon in fending off endemic diseases, they are also critical in helping achieve the best price for cattle.

Ask questions of agents and vendors to ensure they manage the risk of introducing a disease that could affect the health and production of animals on your farm.

**To download a National CHS, cattle producers should visit [www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au) and follow the links to 'Declarations and Statements'. More information on moving cattle interstate can be found on the AHA website at [www.animalhealthaustralia.com.au](http://www.animalhealthaustralia.com.au) (follow the link to the 'Disease Movement Requirements for Stock' page).**

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