







STOCK HEALTH MONITOR

New approach to Johne's disease in cattle has begun

AHA's Biosecurity and Product Integrity Services team

The new, national approach to Johne's disease (JD) officially commenced on 1 July and all Australian cattle producers are encouraged to become familiar with the changes.

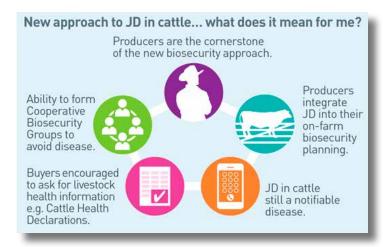
The new approach, endorsed by the cattle industry and Australian governments, is guided by the BJD Framework (bit.ly/29LiMwy) and focuses on managing on-farm biosecurity risks rather than controlling disease through regulation, said Animal Health Australia's (AHA) Executive Manager of Biosecurity and Product Integrity Services, Duncan Rowland.

"This approach treats JD as just one of many endemic diseases that producers must manage within their business on a day-to-day basis. Supported by more flexible regulation, producers will be able to make informed decisions about the opportunities and risks associated with purchasing livestock and their suitability for a market," said Mr Rowland.

A number of changes will occur under the new framework including:

- deregulation and removal of zoning: most state/territory jurisdictions ceased to regulate JD in cattle on 1 July
- ceasing of guarantining of properties as a control measure
- movement to a market-driven approach where producers undertake practices dependent on market requirements.

"To ensure Australian producers and interested stakeholders are informed and supported throughout this reform process, industry and governments are developing tools and resources to assist in the transition.



"AHA has released a useful fact sheet, New approach to Johne's disease in cattle (bit.ly/29SjJyl), which clearly outlines what the approach means for the individual producer and also addresses some frequently asked questions," said Mr Rowland.

In addition, a number of resources are available on the Farm Biosecurity (www.farmbiosecurity.com.au) website to help producers manage and avoid diseases such as JD.

The cattle page (bit.ly/29HjbbJ) hosts a range of information including a number of biosecurity videos, whilst the National Farm Biosecurity Reference Manual - Grazing Livestock Production (bit.ly/29HbvqW) can assist producers to develop their own biosecurity plan.

AHA will continue to work with industry and government to ensure the Framework is implemented as smoothly and quickly as possible to enhance the biosecurity credentials of Australia's cattle industry.

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 a year. Contributions are encouraged. If you have a piece you would like considered for SHM, please email shm@animalhealthaustralia.com.au

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Tools tailored for the JD job

AHA's Biosecurity and Product Integrity Services team

Want help to prevent or manage production diseases such as Johne's disease (JD) in cattle now the new approach to JD is underway?

Then you need to get familiar with four new biosecurity tools.

The tools, developed by AHA in conjunction with industry bodies, include the National Cattle Health Declaration, the Johne's Beef Assurance Score risk profiling tool, the JD Biosecurity Checklist and the Cooperative Biosecurity Plan Guidelines.

These resources have been developed to assist producers manage the transition away from government regulation of JD in cattle, said AHA's Executive Manager Biosecurity, Duncan Rowland.

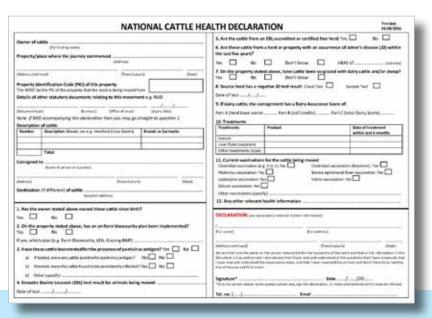
"In the absence of regulation, there is an increased need for producers to establish and maintain effective on-farm biosecurity measures. These new tools will help producers strengthen their biosecurity arrangements to prevent JD from entering their property or assist them to manage the disease if it presents in their cattle," said Mr Rowland.

A particularly important tool is the National Cattle Health Declaration, which replaces the Cattle Health Statement. Justin Toohey, Animal Health, Welfare, Biosecurity and Sustainability Advisor at Cattle Council of Australia said that the new Declaration will prove vital for sellers of cattle to pass important animal health and biosecurity information onto buyers.

"It is a legal document and, when signed, commits the signer to the accuracy of the information contained on the Declaration. As part of industry's renewed push to raise awareness around on-farm biosecurity, buyers of cattle are urged to insist on the provision of a completed Cattle Health Declaration. The receipt of information contained on the Declaration will assist buyers in protecting the health of the cattle they already own and will guide their treatment of the cattle they are purchasing once these cattle are delivered," said Mr Toohey.

The other three tools are also heavily focused on biosecurity. The Johne's Beef Assurance Score allows producers to perform a self-assessment of their level of risk of JD, the JD Biosecurity Checklist provides advice on JD-specific components of a farm biosecurity plan and the Cooperative Biosecurity Group guidelines can assist groups of like-minded producers enhance their collective biosecurity.

All of the tools can be accessed on the JD in cattle tools page on the AHA website. (www.animalhealthaustralia.com.au)



The new National Cattle Health Declaration is one of the new tools available for cattle producers to help avoid JD. The Declaration replaces the National Cattle Health Statement.

Biosecurity - it's time for everyone to act!

AHA's Biosecurity and Product Integrity Services team

A new approach to managing biosecurity is underway with new biosecurity acts for NSW and Queensland, placing greater responsibility on producers and reducing government regulation.

Queensland implemented its *Biosecurity Act 2014* on 1 July, and NSW is expected to officially implement its new legislation next year. Queensland's Chief Veterinary Officer Alison Crook explained what the changes mean to producers.

"Under the Queensland act, individuals and organisations whose activities pose a biosecurity risk have greater legal responsibility for managing them. This general biosecurity obligation means they must take all reasonable steps to ensure they do not spread a pest, disease or contaminant," Dr Crook said.

The new Act for Queensland will, as Dr Crook highlighted, allow for greater flexibility with flow on effects for all livestock industries.

"Frontline staff now have more flexibility in working with the community, allowing them to deliver better services with less disruption and cost to the community."

"The Act also accommodates industry initiatives. For example, the Act allows for compliance agreements and industry accreditation schemes, which utilise industry knowledge about best practice risk management for their unique circumstances," Dr Crook said.

Whilst not yet implemented, the *Biosecurity Act 2015* for NSW will bring together 14 separate Acts under a 'shared responsibility' and 'general biosecurity duty' approach, meaning everyone will play a role.

NSW will also look to industry to help manage risks by establishing biosecurity certification and auditing schemes and will rely on the general community as a source of information as they are the 'eyes and ears' at the grass roots level.

With a greater emphasis on shared responsibility, producers should begin developing their own biosecurity plan through the Farm Biosecurity website. To develop a customised plan go to the biosecurity profile page (bit.ly/105pFgE) and create your own kit. Alternatively, a range of biosecurity manuals for various livestock industries and the Farm Biosecurity Action Planner (bit.ly/29De7Zr) are available to download at no cost.

"The improvement to biosecurity management and the flow-on benefits to producers from the introduction of the NSW and QLD acts will be further enhanced with the recent introduction of the Australian Government's Biosecurity Act 2015 (bit.ly/1JWI0Or)," said Duncan Rowland, AHA's Executive Manager, Biosecurity and Product Integrity Services.

"The Australian Government's new biosecurity legislation, introduced on 16 June, replaces the 108 year-old Quarantine Act 1908. This new legislation will help protect our livestock industry by providing a much more modern, clear and flexible framework for managing biosecurity risks from imports and exports and the infrastructure that supports the movement of goods into and out of the country," Mr Rowland said.

Producers are also encouraged to visit the relevant NSW (bit.ly/29Afx3r) and Queensland (bit.ly/29MHLuF) government websites to learn more about how the new acts will affect them.



There's changes happening for ACT producers as well!

The ACT is home to approximately 78,000 sheep, 12,000 cattle, 1,500 horses and 200,000 chickens, which means biosecurity is just as important to this little territory as well.

The ACT Government recently launched the ACT Biosecurity Strategy 2016-26 (bit.ly/2bQ59aN), which also calls for shared responsibility between government, industry and the community.

All producers who graze or undertake poultry production in the ACT should familiarise themselves with this important document.

A new approach to managing biosecurity is underway, placing greater responsibility on producers whilst reducing government regulation.

Stress-free weaning

Bec Falkenhagen, dairy goat producer

I think the most important step for stress-free weaning is getting the rumen development right in the young animal so that they can properly digest food other than milk.

Therefore, they aren't hungry and they can extract sufficient nutrients to thrive. You can feed milk for as little as eight weeks or much longer and still have animals that look for the milk and miss it if they haven't received adequate rumen development. It's not about how long milk should be fed for, but more about how quickly you can develop the rumen. I have found the sooner I can get calves/kids eating grain, the easier they will be weaned.

From day-one I like to provide them with access to grain and hay to nibble. I would expect them to all be eating a small amount by the time they are two weeks old. My goal is to get them eating 200 grams as soon as

I have found if I can do this by the time they are five to six weeks old they will be able to be weaned at eight weeks without any setbacks or stress. In fact, I find if I put grain out in the pen at the same time as the milk, some will choose the grain in preference to the milk. This behaviour I use as an indicator that they are ready for weaning. If I have a pen that doesn't eat grain as well then I will keep them on milk a little longer until they have been eating the 200 grams long enough and have got the proper rumen development.

At weaning I keep the same routine, with the exception of feeding milk. I go to them at the same time of day and feed them their grain, and hav if needed. Sometimes I move them to a larger pen close by but for the month after weaning the type of hay and grain they received while on milk stays the same.

I have found this system works very well and the kids are quite content and don't cry and stress at weaning.

They also continue to grow well and gain weight to meet growth targets.



Getting the rumen development right is critical to stress-free weaning in goats.

Simulated biosecurity response a success for Western Australia

Dr Claire Petterson, Training Officer, Animal Health Australia

On 17 May 2016, over 180 government and livestock industry professionals converged on the small town of Bunbury. Western Australia, to undertake a simulated biosecurity response exercise for managing a fictional outbreak of foot-and-mouth disease (FMD) in WA.

The three day event, called Exercise APOLLO, demonstrated that in the event of a real emergency animal disease outbreak, numerous people and resources will be required to control the disease and minimise the impact.

Exercise APOLLO was the first exercise of its type to be held in WA for 10 years. and was undertaken as part of the of the Boosting Biosecurity Defences project, made possible by Royalties for Regions. Planning the exercise took over 12 months and was led by the Department of Agriculture and Food Western Australia (DAFWA) with assistance from other agencies, including AHA and the Australian Government Department of Agriculture and Water Resources (DAWR).

The exercise simulated the first five days of a fictional FMD disease outbreak in WA. By the end of the final day, the exercise involved 12 fictional infected properties, including two feedlots and potentially thousands of infected animals. Activities simulated by participating personnel included investigations to trace the fictional disease outbreak, predictions on where the disease might spread, and implementing disease control measures such as livestock movement controls.

The aim of the exercise was to assess DAFWA's preparedness to respond to a major biosecurity incident. The exercise built on work undertaken as part of Exercise ODYSSEUS in 2014, which was a national activity involving a fictional outbreak of FMD in QLD and NSW. Exercise APOLLO provided participants the opportunity to work though emergency response procedures and systems in a simulated life-like situation.

Participants included DAFWA personnel, DAWR, AHA and the Rapid Response Team (which consists of government personnel from around Australia, with expertise in kev emergency response positions).

There was also significant industry involvement from WA Farmers, Pastoralists and Graziers Association of Western Australia, Cattle Council of Australia, Australian Lot Feeders' Association, WoolProducers Australia and Dairy Australia. The WA Government agencies of Police, Health, Environment, Fire and Emergency Services and Main Roads also participated.

The exercise involved participants working from a simulated Local Control Centre and State Coordination Centre. All external components and field work were simulated by the Exercise Control team. Over 100 DAFWA staff had received training in emergency management before the exercise.

The exercise provided an opportunity for them to practice the roles they would assume in a real response. The exercise assessed the ability of DAFWA to plan for largescale animal destruction and disposal. The exercise also provided an opportunity to test 'MAX', DAFWA's new emergency response business system platform, in a simulated incident.

Participants demonstrated great enthusiasm, commitment and teamwork in their approach to the exercise. The exercise was highly commended for its logistics, planning and conduct.

For more information about Exercise APOLLO, see DAFWA's website (bit.ly/29MKLXN).



More than 180 government and livestock industry professionals converged on Bunbury, WA to undertake a simulated biosecurity response exercise managing a fictional outbreak of FMD.

ISSUE 5 WINTER 2016

Is Caprine Arthritis Encephalitis (CAE) syndrome worth worrying about?

Jeremy Rogers, Senior Veterinary Officer, Biosecurity, Primary Industries and Regions SA - PIRSA

Is CAE worth worrying about? John and Bec Falkenhagen at Meningie, South Australia think so, and they have been working hard for three years to eradicate the disease from their herd.

This has involved "snatch rearing" of kids, for genetic recovery. This has meant a lot of extra work and sleepless nights. The process has also involved extensive testing of the whole "caught" herd to ensure the program was working and that they were all remaining negative. But they have finally succeeded after three years!

CAE arrived in the herd in a consignment of goats and was discovered when one goat tested positive at the yearly test. John and Bec had been very careful about where they sourced their goats and they were all tested negative prior to purchase. Despite being assured by the vendor that all the goats on the farm were free of CAE, one did test positive 12 months later, meaning there were some big decisions to make.

Quarantining of the contaminated herd and whole herd tests, and continuing testing of exposed kids, who were also isolated until continuously testing negative, has taken a few years to finally rid the herd of the disease but there was success in January this year when they sold the last of the contaminated herd.

Does it have an economic impact in goats?

John and Bec know that goat dairy herds infected with CAE will have reduced milk production and reduced recovery from secondary ailments. They wanted to eradicate the disease before chronic health problems in the goats, deaths in kids and painful disfigurement of "knees" in the goats – also causing premature death - became a problem for them. John and Bec's production losses and costs have been estimated to have reduced profit by 20 per cent.

When the disease was first detected John and Bec made a plan with the local vet and decided to eradicate the virus. The time to act is when the disease is at a low level or prevalence. After six months, as the disease was spreading too fast in the milking herd, they decided to quarantine the whole herd and go into genetic recovery and keep enough "caught" kids to completely replace the exposed herd. As the new herd began kidding they were run in a completely separate herd and milked first.

During this process John became involved in various national goat health and welfare working groups assisting to develop tools, looking at testing and promoting CAE awareness amongst the goat producer community.



What are some good tips for avoiding CAE?

Although some people might think that CAE is only a problem for the dairy goat industry, it can affect any goats and cause losses.

John and Bec's advice to people wanting to know about CAE, and thinking of bringing new goats to their herd:

1. Know what you are buying.

Insist on seeing a completed Goat Health Statement. See www.farmbiosecurity.com. au/industry/goat, and ensure that the goats you purchase have been tested negative for CAE and are from a herd that has had at least two years of whole herd negative tests.

2. Ask the questions.

- a. Is this source herd a closed herd, or are there regular movements of other goats into the herd?
- b. What testing has been done recently to prove whether the herd is infected with CAE or not, or other important and serious diseases like Johne's disease?

3. Do your homework

Find out about CAE and Johne's disease from reliable sources. Talk to your local vet or government district vet or visit www.goathealth.com.au.

What if you already have the disease in your herd and are thinking of eradicating?

- Check out the costs and processes involved. Depending on the size of your herd this may take many years to achieve.
- 2. Get good advice from people who know Department vets in each state and some goat dairy producers around Australia have experience in this.

Thanks to John and Bec Falkenhagen for providing input into this article.

International report confirms Australia is a world leader in animal health and biosecurity

From AHA's Corporate and Member Services team

An evaluation of Australia's veterinary services by the World Organisation for Animal Health (OIE) found Australia's reputation as a leader in animal health and biosecurity systems is justified.

The OIE evaluation, the first in a highly developed country, found the majority of criteria measured were assessed at the highest competency level.

"The report confirms Australia's reputation for supplying premium food and fibre to domestic and international markets and will enhance market opportunities into the future," said AHA Chairman, Peter Milne.

"AHA congratulates the Department of Agriculture and Water Resources for their leadership in requesting this evaluation and thanks the jurisdictions and the Commonwealth as well as industry for their constructive participation in the evaluation process," said Mr Milne.

"The challenge for all of us working in the biosecurity space is not to become complacent because of the overall positivity of this report. Amongst the many positives, the report does highlight areas of concern in the provision of veterinary services in Australia, including staffing and funding issues and provided suggestions to deal with any issues raised.

"Governments in Australia – often with industry participation – are already working to address many of the issues in the evaluation, often as a result of their own earlier reviews. Thorough consideration of the recommendations and resulting actions coming out of the OIE process will complement existing efforts to improve biosecurity services in a challenging financial environment," said Mr Milne.

The legislated and operational direction for much of Australia's agricultural sector is transitioning to 'shared responsibility' for biosecurity. AHA will continue to work with both industry and government to ensure Australia's reputation as a world-leader in biosecurity and animal health continues to shine.





TAPPAS – Computer modelling wind borne threats

Dr Cathy Frazer, Planning and Communications Manager, Plant Health Australia

Long distance spread of pests such as insects via wind currents is a recognised pathway into Australia, particularly in the north.

But knowing when and where to check for these exotic pests has been difficult up until now, with the launch in 2015 of the Tool for Assessing Pest or Pathogen Airborne Spread (TAPPAS) – making it now possible to predict dispersal patterns.

Wind dispersion models are important tools for predicting where and how quickly air pollutants, such as volcanic ash, pollen load, or an accidental chemical release, may spread.

Pest or pathogen dispersion is different to dust or pollutant dispersions because living organisms respond differently within the atmosphere. They might die if it is too hot or cold, if the wind is too turbulent, or if they are susceptible to ultra-violet light. All these organism-specific parameters need to be taken into account to establish if there is a biosecurity risk or not.

TAPPAS links to high performance computers that have access to global air circulation information from the Bureau of Meteorology (BoM), the dispersion model HYSPLIT and knowledge of the biology of the organism.

It produces a series of maps showing the risk of dispersal over a period of time, pinpointing the ideal times and locations to undertake surveillance for potential wind borne threats.

TAPPAS is a collaboration between CSIRO, BoM and Intersect.

Mapping insect dispersal via the wind. © Wilson, Darpel and Mellor Image from http://www.csiro.au

WINTER 2016

Getting up close and personal with foot-and-mouth disease

AHA's Emergency Preparedness and Response Services team

In May this year, AHA's AUSVETPLAN Veterinary Officer Dr Francette Geraghty-Dusan went to see FMD first-hand as part of an FMD training course in Nepal.

Participation in the training course, which was a real eye opener for all of the attending Australian participants, was just a small part of on-going efforts by the Department of Agriculture and Water Resources to keep Australia FMD-free and ensure a fast response to any incursion.

Dr Geraghty-Dusan teamed up with a group of 11 fellow Australians, made up of industry and government veterinarians and animal health professionals who had all completed an on-line training course on FMD prior to their departure. Together with five Nepalese colleagues, they put their disease investigation skills to good use, examining FMD outbreaks on the edge of the Kathmandu valley.

Dr Geraghty-Dusan highlighted the impacts of the disease in Nepal and the need to do more than just diagnose cases.

"The disease is endemic in Nepal and outbreaks are common so the team also identified risk factors that could be addressed to decrease disease spread," Dr Geraghty-Dusan said.

Her visit to Nepal, highlighted to Dr Geraghty-Dusan why this disease is so notorious.

"FMD is not an inconsequential disease - it causes significant illness. Older animals suffer for weeks before generally recovering but younger animals - calves, lambs piglets - can die due to sudden heart failure. Even in endemic countries, it substantially impacts households and communities in terms of; animal deaths and abortions, reduced reproduction rates and loss of sustenance and earnings from reduced milk yields and restricted sale of milk, besides prevention and treatment costs.

"Clinical signs in cattle and pigs are severe and unmistakable; think about how you feel with severe fever and then consider if your tongue was blistered to the degree that its entire surface sloughed off – this is why cattle particularly show a lack of appetite and drooling among their clinical signs. Cattle also get blisters and erosions on their teats and between their toes.

"In pigs where the disease predominantly affects their feet, infection can result in sloughing of the entire hoof wall so they typically refuse to walk, lie down and vocalise in pain. They can also have blisters on their snouts.

"In goats and sheep the clinical signs are far less notable and could easily be missed or mistaken for something common like footrot. It's another good reason to thoroughly investigate any sign of lameness in sheep flocks and goat herds," Dr Geraghty-Dusan said. The training trip also emphasized the numerous pathways by which FMD could enter Australia. Dr Geraghty-Dusan was part of a group of six that did a typical tourist day hike at the end of the training. They were astounded to find themselves walking right through the villages they knew were in the middle of an FMD outbreak! As a result, the team was incredibly vigilant about disinfecting all shoes and clothing (they hardly wanted to be the training team that brought FMD back to Australia).

Dr Geraghty-Dusan highlighted the need for anyone traveling to take the right precautions, so as to avoid bringing FMD back to Australia.

"It's not just swill feeding that puts our livestock industries at risk from FMD, it's vital that farming families and their friends take the right precautions when travelling," Dr Geraghty-Dusan said

Precautions travellers should take include:

- 1) Knowing whether the countries you travel to have FMD (or other diseases Australia is free from), noting that popular holiday destinations such as Nepal, Thailand, Cambodia, India, Kenya and South Africa all have FMD.
- 2) If you have travelled to a country with FMD, declare any foodstuffs as well as your hiking boots to customs officials as you re-enter Australia. Have your boots disinfected and bagged by customs and put your clothes through a hot wash yourself.
- 3) Stay off farm and away from livestock for a week after travelling if you've come into close contact with any animals in countries with FMD.

Dr Geraghty-Dusan's attendance was supported by AHA and DAWR. The course was run by the European Commission for the Control of Foot-and-Mouth Disease which is part of the Food and Agriculture Organisation of the United Nations.

"This was my first time dealing with a real life emergency animal disease. It highlighted the importance of planning before entering suspect infected premises and decontamination when leaving the site. I think the course did truly equip us with the knowledge and skills required to deal with an FMD outbreak in Australia. It was also great that the Nepalese people were so open and engaging, allowing us to fully work through our scenarios."



Scott Ison (pictured on the right), District Veterinarian and participant of the Nepal training course



A number of industry and government veterinarians and animal health professionals from Australia visited Nepal to get a first-hand experience managing FMD.

Electronic identification of sheep and goats at a glance

From Agriculture Victoria

Victoria is introducing an electronic identification system for sheep and goats from 1 January 2017.

The system will be introduced in phases. Industry will be consulted and supported during its implementation.

All sheep and goats born in Victoria on or after 1 January 2017 will require an electronic identification tag before being dispatched to a saleyard, abattoir, knackery or another property.

The electronic tags will be linked to National Livestock Identification System (NLIS).

From mid-2017, all saleyards and abattoirs will be required to read electronic tags of sheep and goats and upload this information to the NLIS database.

Electronic identification tags have been used successfully in the cattle industry for over a decade.

This decision will significantly improve the ability to track sheep and goats in the event of an animal disease emergency or a food safety event, protecting existing and future market access opportunities.

For more information visit: www.agriculture.vic.gov.au/sheepEID

Phased implementation

- 24 August Announcement of new approach for electronic identification for sheep and goats
- 29 September Consultation on draft standards and transition package ends
- October Standards and transition package announced
- November Producer workshops and other support commences
- 1 January 2017 Sheep and goats born will now be electronically tagged

Agriculture Victoria will consult with industry on draft standards and transition package

- The Victorian Sheep and Goat Identification Advisory Committee (SGIAC) and the government have developed draft electronic NLIS (Sheep & Goats) standards.
- The draft standards will be available for consultation with industry until 29 September 2016.
- Funding will be available to support the introduction of the new system for the Victorian sheep and goat industries.
- There will be workshops available for producers in addition to other support.
- Consultation on the transition package will also run until 29 September 2016.

New study into best practice vaccination technique in lambs and sheep

Dr Natalie Robertson, Group Veterinary Operations Manager - Livestock, Zoetis

Most vaccines for sheep in Australia are designed to be injected subcutaneously (under the skin). However a recent study, conducted by Dr Tristan Jubb and supported by Zoetis Australia, has found that even experienced sheep producers and contractors may unintentionally be administering vaccines incorrectly, into muscle tissue.

This increases the risk of costly carcase trimming and other side effects such as painful abscesses, loss of condition and even neurological damage or "staggers" in certain cases.

In the study, humanely euthanized lambs and sheep with various body condition scores and wool cover were vaccinated on the side of the neck with dyed Gudair® - the vaccine used to control Ovine Johne's disease. The impact of quarter and half inch needles, at 45 or 90 degrees to the skin, was investigated.

The results clearly demonstrated that even in the hands of an experienced vaccinator, a half inch needle – used at 45 or 90 degrees to the skin – was likely to deliver the vaccine into the muscles of the neck, rather than under the skin.

In contrast, a quarter inch needle at 45 degrees to the skin was most likely to successfully deliver the vaccine under the skin in lambs and adult sheep in low body condition and/or with short wool cover, thereby minimising the risk of any adverse reactions.

Even in adult sheep with more significant wool cover, a quarter inch needle, used at 90 degrees to the skin was shown to successfully penetrate through the wool to deliver the vaccine under the skin.

The study also highlighted the importance of the correct vaccination site. Vaccinating on the side of the neck, approximately 5cm from the base of the ear, helps to avoid hitting structures including bone, ear cartilage and glands in the head/neck region, whilst also minimising the risk of injecting into relatively valuable meat cuts.

By vaccinating at the correct site, using the right equipment and approach, sheep producers can maximise vaccine efficacy and minimise the risk of adverse reactions.



Administering vaccines to lambs using only quarter inch needles at a 45 degree angle to the skin is a key finding from a recent study investigating the impact of different vaccination techniques in sheep. Photo by Zoetis

Regional biosecurity arrangements key tool against OJD

From AHA's Biosecurity and Product Integrity Services team

A study recently published in Preventive Veterinary Medicine has shown that the presence of coordinated regional biosecurity arrangements is strongly associated with lower levels of Ovine Johne's Disease (OJD).

An assessment of the association between soil pH and ovine Johne's disease using Australian abattoir surveillance data (Cowled et al, 2016) showed many factors are associated with OJD, including a small association between OJD and soil pH.

Regional Biosecurity Plan Areas were set up in 2013 when OJD was deregulated around much of Australia. Queensland and South Australia remained regulated but producers in parts of NSW and Victoria set up voluntary areas to help exclude OJD and other diseases such as footrot and ovine brucellosis.

The study used data generated from the National Sheep Health Monitoring Project. It determined that OJD was strongly associated with a number of biosecurity and environmental factors such as the time since infection arrived in a region, absence of biosecurity



programs (such as Regional Biosecurity Plan Areas or state based programs) and, to a lesser extent, average maximum annual solar radiation and sheep density.

For more information on Regional Biosecurity Plan Areas go to ojd.com.au

Working with neighbours to establish a regional biosecurity plan is a great way to help prevent OJD and other diseases entering your property.

Goat producers show how easy biosecurity can be

From the Biosecurity and Product Integrity Services team

For John Schooneveldt and his partner Donna Reid, biosecurity is woven into everyday life at their goat property outside Binalong, in southern NSW.

The couple have raised cashmere goats on their 107-acre property for the past 20 years and over this time have integrated biosecurity practices with their daily operations in order to capitalise on the benefits of raising healthy livestock and avoiding diseases, pests and weeds.

In a one-on-one interview, filmed as part of the latest Farm Biosecurity video – *Production Practices* – currently in production, Donna remarked that with a quality animal, they'll have quality fibre and quality meat. This is their main aim – great quality product.

"To start with, when we bring any animals onto the property, we are always concerned that they do not bring any diseases with them, so we have a quarantine paddock, close to the front gate and that's where the newly introduced animals go until we are happy that they are healthy and emptied out," said Donna.

"Quarantining also gives us the chance to look the goat over and identify any problems that might come up," Donna said.

Donna also highlighted how they implement routine, but casual, monitoring into their everyday lives.

"We are out and about, walking, looking at the goats all the time and if we see anything that's problematic we will go straight into action," Donna said.



Other simple, cheap, yet very effective practices Donna and John employ include:

- storing feed off the ground on recycled timber pallets in a clean, dry storage shed
- ensuring all feed and water troughs are raised off the ground so they minimise contamination by faecal matter
- promptly cleaning spilt feed around the troughs to avoid encouraging feral and pest animals and old, mouldy food being eaten by stock
- carefully considering and cross-checking dosages of treatments such as drenches and antibiotics before administering to the animals.

For John and Donna, employing biosecurity measures are a logical business move, as they provide a simple way to boost production and avoid the expensive outcomes that can accompany livestock diseases, pests and weeds.

All producers can take similar actions on their properties, easily and simply, and in doing so will help prevent the costs associated with disease and pest incursions on their properties.

More biosecurity tips and tools can be found on the Farm Biosecurity (www.farmbiosecurity.com.au) website, including videos (http://www.farmbiosecurity.com.au/videos/) and a biosecurity action planner (bit.ly/29De7Zr).

Cashmere goat producers, Donna Reid (pictured) and John Schooneveldt have integrated biosecurity procedures into their everyday farm management practices.



Number of known infected herds and flocks, July 2016

CATTLE

Number of known infected cattle herds with Johne's disease

State	Sept 2015	Dec 2015	Mar 2016	June 2016
NSW	124	112	117	96
NT	0	0	0	0
Qld	6	6	6	5
SA	55	51	51	50
Tas	39	39	39	39
Vic	918	915	915	919
WA	0	0	0	0
Total	1142	1123	1128	1109

GOAT

Number of known infected goat herds with Johne's disease

State	Sept 2014	Dec 2014	Mar 2015	June 2015
NSW	3	0	0	0
NT	0	0	0	0
Qld	1	0	0	1
SA	2	2	2	2
Tas	4	4	4	4
Vic	13	13	13	12
WA	0	0	0	0
Total	23	19	19	19



Number of assessed herds and flocks in MAPS, July 2016

ALPACA	MN1	MN2	MN3	TOTAL
NSW	0	3	7	10
QLD	0	0	0	0
SA	0	3	4	7
TAS	0	0	0	0
VIC	0	0	1	1
WA	0	0	0	0
TOTAL	0	6	12	18

CATTLE	MN1	MN2	MN3	TOTAL
NSW	30	43	62	135
QLD	0	0	0	0
SA	17	41	57	115
TAS	5	12	17	34
VIC	12	15	22	49
WA	0	0	0	0
TOTAL	64	111	158	333

GOAT	MN1	MN2	MN3	TOTAL
NSW	3	4	1	11
QLD	0	3	1	2
SA	1	3	4	8
TAS	1	0	0	1
VIC	1	0	0	1
WA	0	0	0	0
TOTAL	6	10	6	23

SHEEP	MN1	MN2	MN3	TOTAL
NSW	21	30	104	155
QLD	0	1	0	1
SA	17	30	113	160
TAS	1	2	10	13
VIC	10	10	29	49
WA	2	2	0	4
TOTAL	51	75	256	382

Contacts

For further information on any of the items in this newsletter please email: shm@animalhealthaustralia.com.au or visit the AHA website: www.animalhealthaustralia.com.au

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Snippets

AHA JOINS SOCIAL MEDIA

AHA is excited to announce that it now has a social media presence!

AHA is now active on:

- Facebook (www.facebook.com/ animalhealthaustralia)
- Twitter (www.twitter.com/aha_au)
- LinkedIn (www.linkedin.com/company/animal-health-australia)

AHA is looking forward to engaging and sharing with Members, industry groups and other stakeholders.

Please join us on these platforms and get involved in the conversation!







NEW SHEEP AND GOAT HEALTH STATEMENTS AVAILABLE

New versions of the Sheep Health Statement (bit.ly/29C3lyF) and Goat Health Statement (bit. ly/29C3eTp) are available on the Farm Biosecurity (www. farmbiosecurity.com.au) website.

These documents are reviewed annually to ensure they are contemporary and up-to-date.

A new and convenient feature available for sheep producers includes a writable PDF version (bit.ly/2a2hSbS) of the National Sheep Health Statement so producers can complete the form on their computer before printing it or emailing it to agents or buyers of their sheep. There is still a printable PDF version for those who may not have reliable internet access.

Both documents are also available in the Farm Biosecurity Toolkit (www.farmbiosecurity.com.au/toolkit/).

HELP MAKE THE EMERGENCY ANIMAL DISEASE WATCH HOTLINE STICK

AHA currently has stocks of the "Spotted Anything Unusual' fridge magnets for meat and wool sheep, beef and dairy cattle, horse, pig and screw worm fly available for free.

The magnets can be placed on the fridge and are a great tool to remind producers to report any unusual disease symptoms to the Emergency Animal Disease Watch Hotline.

If you would like some magnets, please email publications@ animalhealthaustralia.com.au with the quantity you require and your species preference.





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