

JD NEWS

Official Newsletter of the National Johne's Disease Control Program

Summer 2009



Useful tools for risk based trading ... check before you buy!

Over the past five years we have seen major changes in the control of Johne's disease (JD) in Australia.

Research and experience has resulted in a better understanding of how the disease behaves in this country and in the different industry sectors. Management systems have also evolved. This, and the greater involvement of the livestock industries, has moved the focus on Johne's disease control from a regulatory perspective to one where industry groups and individual producers have greater input. This is especially the case in southern Australia where either ovine or bovine Johne's disease occurs.

But the effectiveness of risk-based trading depends very much on the understanding and integrity of the people actually doing the trading.

Market Assurance Programs or MAPs were developed in the early stages of the National Johne's Disease Control Program (NJDCCP) as a means for interested producers to transparently demonstrate their herd or flock's risk of having Johne's disease. The Cattle, Sheep, Goat and Alpaca MAPs have a common philosophy, a consistent approach and have been tailored to suit each species and industry as new needs, knowledge and tools (such as vaccine or better tests) have come to light. Public registers of MAP herds and flocks, status certificates, annual veterinary reviews and external audits every three years underpin the integrity of the MAPs.

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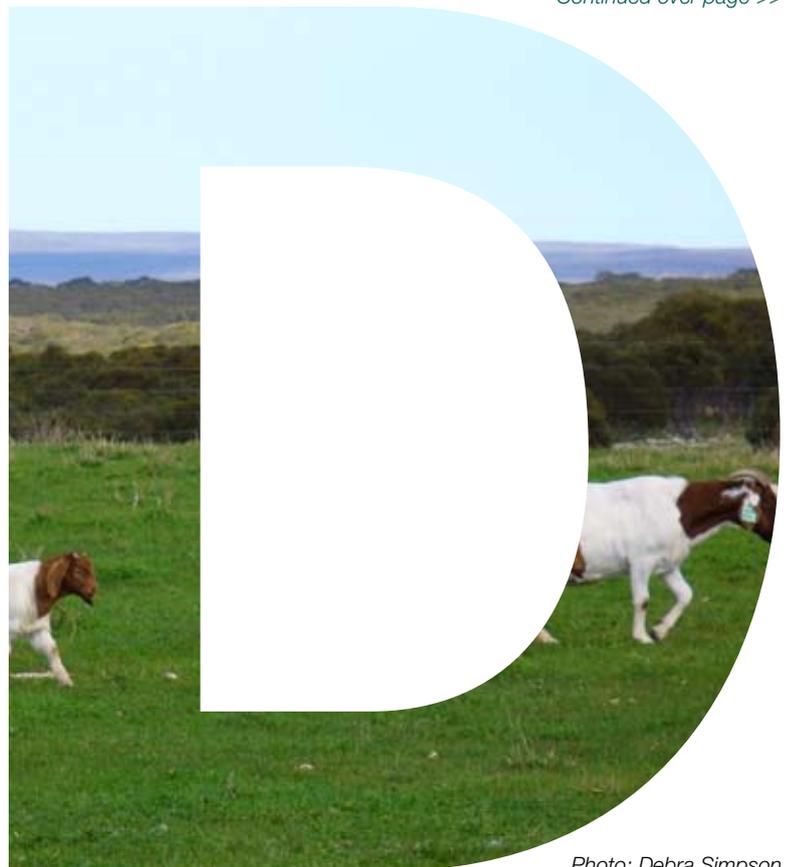


Photo: Debra Simpson

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MAPs however meet the needs of only a small proportion of livestock producers and so, over the past five years, the national program has developed a broad range of sector specific tools to make risk-based trading a more accessible option for all producers.

These tools are:

- National Dairy BJD Assurance Score
- *Beef Only* declarations
- Assurance Based Credits (ABC) scheme for sheep flocks
- *Q-Alpaca*
- Assurance Rating for goats

The Australian Alpaca Association manages the *Q-Alpaca* scheme and maintains a public register of herds where the owner works with an approved vet to manage and monitor a herds' health, for other diseases as well as Johne's disease.

The other schemes in contrast totally rely on owner declaration that his or her herd or flock satisfies the criteria to meet the claimed assurance status, score or rating. So the seller needs to understand what they are declaring and so does the buyer.

Most of the information to help them is on the national standard declaration forms themselves. The National Animal Health Statement for Johne's Disease Status of Beef Cattle has been available for a few years. With the strong support of the industries and the agents, the National Sheep Health Statement and National Goat Health Statement, were endorsed in the past year. These statements have information on other animal health issues as well as Johne's disease. The Dairy Score can be declared as a number on the normal cattle NVD but a standard form that outlines how the score for any group of cattle has been determined is also available for buyers, shows or interstate authorities that want to use it.

And remember, *Check the declaration before you buy the animals!*

All of these forms can be easily accessed by following the links on Animal Health Australia's website: www.animalhealthaustralia.com.au/programs/jd/jd_home.cfm or www.farmbiosecurity.com.au ■

National BJD Financial and Non Financial Assistance Program continues to provide support to affected producers.

The National BJD Financial and Non Financial Assistance Program is an initiative of the Cattle Council of Australia and provides a range of assistance measures to beef producers whose herds are infected with bovine Johne's disease. Currently there are fewer than 150 herds known to be infected nationally and the very low prevalence in the disease in the national beef herds supports the view that the Australian beef industry is a producer of a 'clean green' product.

The range of assistance measures available in the package includes access to a BJD counsellor; financial planning as well as funding for testing and the removal of high risk animals from the herd. The objective of the program is to assist producers return to unrestricted trading as soon as possible. The program is proving to be most helpful to producers who access the benefits. To find out more about the program, contact your local BJD Counsellor or District Veterinarian.

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Photo: Brigette Heyer

Goat industry embraces biosecurity

Goat trading between states has become a lot simpler with the introduction of a National Goat Health Statement on 1 February 2009.

The Goat Industry Council of Australia (GICA) developed the national declaration for the goat industry to bring a new level of assurance for producers involved with goat trading while also recognising the importance of on-farm biosecurity plans in managing costly animal health disease.

Steve Roots, the President of GICA, has been actively explaining to goat producers the risks involved in buying and selling goats and the benefits of using a goat health statement to help eliminate some of the risks at the time of trading.

The statement requires producers to provide information for a number of significant diseases that impact on farm production. These diseases include footrot, Caprine Arthritis Encephalitis (CAE), lice, resistant worms and Johne's disease.

A risk rating system for Johne's disease is included in the statement and this is a nationally agreed method of assessing the risk that goats have Johne's disease.

The risk rating system builds on knowledge and hard-gained experience from other industries to help goat producers to reduce the risk of their herds becoming infected with Johne's disease. It also provides a pathway for owners of infected herds to improve their trading position by gaining trading credits through the use of a range of management tools.

The statement brings many benefits for goat producers and reassures the goat industry that the stock they buy and sell is of good animal health and producers should always ask for a copy of the Goat Health Statement before making a purchasing decision.

For more information or to obtain a copy of the National Goat Health Statement visit the new goat health website www.goathealth.com.au ■

Recent Market Assurance Program (MAP) activities.

The MAP program has been a feature of Johne's disease management in Australia since 1996. Originally established as a means of providing a recognised objective description of animal assurance for the purposes of domestic trade, the MAP program is now recognised internationally as a credible and robust program that is underpinned by a property risk assessment and biosecurity plan, supported by testing and an owner declaration about the status of the herd.

An updated CattleMAP will be circulated in the near future to all CattleMAP participants, and veterinarians. A number of improvements have been made including check lists for producers, veterinarians and a clearer explanation of the responsibilities of each party. In response to requests from producers, the manual and editable versions of all the forms will be provided on CD. Hard copies will still be available upon request.

Work is progressing on a revision of the GoatMAP to include references to the Pooled Faecal Culture Test and the Goat Risk Assurance Rating. These will be released in a revised form later this year.

With a broader understanding of the concepts of biosecurity, various stakeholders are evaluating the merit of the MAP program to determine whether the principles upon which the MAP program is built could be applied more widely to the management of livestock disease. To ensure widespread consultation, Animal Health Australia has commissioned a review of the MAP program. A comprehensive brief has been provided to the consultants undertaking this work and a number of producers, veterinarians and auditors as well as departmental staff will be approached to provide their views on the MAP program.

Recommendations arising from the review will be considered by the MAP Reference Group in determining how the MAP may be modified to continue to provide a high level of assurance to producers. ■

“Why stay in the MAP”

Courtesy of Jeremy Rogers, Department of Primary Industries and Resources of South Australia

The Johne's Disease Market Assurance Programs (MAPs) for Cattle, Sheep, Alpaca and Goats have been operating in Australia since 1998. This program has been highly successful in establishing a pool of animals where discerning buyers have an increased level of confidence that the stock they purchase are not infected with the insidious disease, Johne's disease (JD).

Many herds and flocks joined the program early and have undergone rigorous auditing and testing for many years to demonstrate their continuing high status. Herds can seldom absolutely claim “freedom” for Johne's disease, even though they are continually tested negative, as the tests are not sufficiently sensitive to make this claim. However the longer the producer is on the scheme the greater the assurance. However, the fact that a very small number of herds or flocks have been detected as being infected at MN3 level, underscores the benefits of continuing testing and bio-security. In larger herds some of the animals may only be detected as infected as older animals at 8 to 10 years or more.

In recent years there have been a number of “assurance based trading”, or “risk based trading” programs developed, such as “Beef Only”, “Q Alpaca”, and the national “Dairy Assurance Score”. Many shows and state authorities now accept some of these categories as being valid entry and this has led to some producers questioning “why should I stay in the MAP?”

Ultimately this becomes an economic decision for each individual business but some factors that might be included on the positive side are:

1. Producers have already spent significant funds and effort getting to where they are and the costs of maintaining that status is not great.
2. The new “assurance based trading” systems are fairly recent and there is still some scepticism about the reliability and functioning of the schemes. The MAP schemes have the known tried and proven track record.
3. The success of the MAP programs means there is a well established “brand name” in the market. The MAP's are more than just testing of herds and flocks, as they also involve rigorous biosecurity measures as well and these reflect the highest levels of management in participating herds and flocks.
4. Structured testing of herds and flocks will always give a higher level of assurance and confidence to buyers than statements made on the basis of regional disease information or personal opinions. MAP properties achieve their status by testing at a specified level and over a number of years.

If you wish to discuss any of the new programs, or whether you should continue in the MAP, you should contact your own Vet or the State coordinators who are listed on the Animal Health Australia website, or in your MAP Manuals. ■

Industry assistance + animal health risk management = positive partnership

Since discovering BJD (bovine Johne's disease) in his herd in 2005, NSW beef producer Barry Robotham has improved his BJD management strategies after gaining a better understanding of the disease. Knowing the history of an animal, not taking risks and buying females from a “Beef Only” or MAP assured herd are important parts of Barry's management plan.

BJD is an infectious disease caused by bacteria called *Mycobacterium paratuberculosis* which live in the intestines of the animal. There is no treatment currently available but the spread of the disease can be controlled by implementing BJD management strategies.

Barry purchased three cows in 2002 from a store sale. At the time he did not understand the risk associated with buying cattle without considering their history. Despite being treated for internal parasites, one of the bought cows continued to scour. Following veterinary advice Barry tested her for BJD.

“The test came back positive and I was absolutely devastated,” Barry said. “Initially I was angry, upset and embarrassed. I was worried about my reputation and I did not want people to know that my herd had the disease. But I have moved on and am happy to share my experience and to talk to others who are going through what I did.”

Barry admits that now he has a better understanding of the disease he should never have tried to hide BJD. He said it wore him down and caused him and partner, Pauline, unnecessary stress.

Barry has now successfully eradicated BJD from his herd. He achieved this with determination and the National Financial and Non Financial Assistance Package (FNF). The FNF is available to beef producers whose herds are infected or suspected of being infected with BJD.

“As a part of the program I had access to a BJD counsellor to help me with an EPDMP (Enhanced Property Disease Management Plan). I was pretty sceptical about talking to a counsellor but he proved to be a fantastic help,” Barry said.

“The best way to tackle BJD is to bite the bullet and get on with eradicating the disease which is what I have done. I was pro-active and got out of quarantine in just 14 months. I really recommend that any one facing BJD in their herd should take this advice”.

Contact: Animal Health Australia (02) 6232 5522 or visit the website www.animalhealthaustralia.com.au ■

Courtesy of Alison Paxton, Dairy Extension Centre, SA.





Photo: Mardi Remond

Securing your farm with simple biosecurity measures

Thea McNaught-Reynolds, Animal Health Australia

Effective farm biosecurity is critical to livestock health and protecting farm incomes. Endemic diseases, including Johne's disease, cost millions of dollars each year but simple biosecurity measures can help reduce their impact.

Farm Biosecurity research in 2007 identified five key risk areas that are common gaps for most livestock industries and, if not managed properly, can lead to the introduction of diseases, pests and weeds. Producers should consider the risks to their own properties in relation to:

■ People movement

Including family members, contractors, neighbours, agents, veterinarians etc.

Make sure all visitors report to a designated area and clean their shoes if necessary. Dirt and manure are great carriers of disease and shoes are a great carrier of dirt and manure. Be especially vigilant if you know they have come from another property with livestock.

■ Product movement

Including movement of livestock, plants and plant products.

Check records thoroughly before bringing any new stock onto your property. Always choose a MAP score equal to or higher than your own.

■ Feed and water

Don't allow dirt and manure to build up in feed and water supplies. Make sure feed stores are secure so that disease-carrying pests can't get in.

■ Equipment and vehicles

Manure and dirt on equipment and vehicles can carry all sorts of diseases, not least Johne's disease. Make sure equipment is cleaned and disinfected between uses and that vehicles are cleaned thoroughly before entering your property or directed to a parking area away from your livestock.

■ Pests and weeds

Including feral animals, worms, lice, flies, insects, weed seeds etc.

Pests can carry disease and weeds can be toxic, so make sure you have control measures in place. Work with your vet to implement a livestock health plan that includes vaccinations and worm treatments etc.

Using these five risk areas, producers should identify weak points and adjust on-farm practices where necessary. Each peak industry organisation also has an industry biosecurity plan which details specific risk mitigation strategies for that industry and provides a plan for securing the property against pests and disease.

AHA Manager Disease Risk Mitigation Duncan Rowland says Farm Biosecurity provides an important level of protection for your livestock.

"We have seen that many producers think they know what they need to do – but don't necessarily do it, not realising that animals can carry and transmit disease before they show signs,"

"Reducing the risks doesn't have to mean a lot of time or money. Sometimes minor changes such as checking records of new animals and cleaning boots and clothing can make a huge difference," he said.

"Information for producers on biosecurity risks and how to reduce them can be found at: www.farmbiosecurity.com.au. The website includes information about disease risks, reducing those risks and how to go about it. It now also contains health statements and show health declarations all in the one location which will make it even easier for producers to implement effective farm biosecurity," Mr Rowland said.

If you see anything unusual on your property call the Emergency Animal Disease Watch Hotline on 1800 675 888 or the Exotic Plant Pest Hotline on 1800 084 881. ■

www.farmbiosecurity.com.au

OTHER GOAT HEALTH NEWS

Caprine arthritis encephalitis (CAE)

Courtesy of Diane Ryan, NSW Department of Primary Industries

Caprine arthritis encephalitis (CAE), commonly known as “big knee” is caused by a lentivirus or “slow” virus associated with nervous disorder (encephalomyelitis) in kids and slowly-developing disease syndromes in older goats. These can include arthritis in most joints, especially the knees, mastitis, pneumonia and wasting. Symptoms can vary markedly between animals with most well managed goats showing no obvious clinical signs.

The virus occurs mainly in improved dairy goat breeds and is spread primarily via infected colostrum and milk. Control programs have been conducted in many countries but CAE is still prevalent in dairy goat populations world-wide, including within New South Wales.

CAE is a market access issue. The OIE requirements for live goat imports include:

- the animals showed no clinical sign of caprine arthritis/encephalitis on the day of shipment; and either
- animals over one year of age were subjected to a diagnostic test for caprine arthritis/encephalitis with negative results during the 30 days prior to shipment; or
- caprine arthritis/encephalitis was neither clinically nor serologically diagnosed in the sheep and goats present in the flocks of origin during the past 3 years, and no sheep or goat from a flock of inferior health status was introduced into these flocks during this period.

CAE is also considered an animal welfare issue and causes major production losses through mastitis, ill-thrift, arthritis, pneumonia, ascending paralysis and encephalitis in kids.

The clinical signs in an infected goat are mainly due to the body's reaction against the virus infected cells. Clinical signs include:

- Viral mastitis, with an increase of white blood cells in the milk and a decreased resistance against mastitis. Lifetime milk production may be decreased and the udder may be more prone to secondary bacterial infections. ‘Hard udder’ (indurative mastitis) can occur.
- Arthritis in any joints, most notably the carpal joints (‘big knee’), due to inflammation of the tendon sheaths and joint lining (synoviae).
- Pneumonia following inflammation in the lung tissue.
- Neurological disease due to inflammation in the brain and its covering (meningitis/encephalitis) or inflammation in the spinal cord, resulting in progressive paralysis. Kids less than 6 months of age are more likely to show this form.

The majority of CAE infected goats do not show any outward clinical signs, although viral mastitis may be present in does.

Clinical signs can occur in a previously sub-clinical goat if the goat is exposed to stressful situations such as poor nutrition and overcrowding. Well managed infected goats may never express clinical signs.



Photo: Chelsea Elder

How does CAE spread?

The virus is mainly spread between goats through the ingestion of infected milk by kids or adults. Adult goats can also become infected by exposure to infected milk droplets during milking.

The virus can also be spread by respiratory secretions, saliva and tears when goats are kept in close quarters.

Transfer sometimes occurs by exposure to blood on gear such as vaccination needles, tattooing equipment, dehorning or foot/hair shears, or through exposure to open wounds for example, torn ears after ear tagging.

Venereal spread via semen and in utero spread to kids are less likely but can occur.

The virus usually enters a clean property in an infected goat. The goat may or may not be antibody positive for CAE at the time of first blood testing because of the delay between exposure to the virus and the development of antibodies.

CAE control

Detecting sub-clinically infected goats is key to preventing CAE spread.

Infected goats are detected by serological (blood) testing. The most accurate test is the ELISA although some countries still use the less specific AGID test.

Repeated blood testing during a 12 month period will detect the majority of infected goats (a very small number may take longer to seroconvert).

The CAE status of goats should be determined in goats 12 months and older. Adult does should not be tested in the period from one month either side of kidding as inconsistent results could occur. No goat should be tested within one month of any vaccination.

For further information on CAE please contact your state department of primary industries. ■

JOHNE'S DISEASE & MAP STATISTICS



Number of known infected herds and flocks December 2008

Source: JD01 NAHIS 1/01/2008- 30/09/2008

CATTLE

Number of known infected cattle herds.

	March 08	June 08	Sept 08
NSW	111	103	107
SA	71	73	68
TAS	16	16	16
VIC	871	838	871
WA	0	0	0
Total	1069	1030	1062

SHEEP

Number of known infected sheep flocks.

	March 08	June 08	Sept 08
NSW	1286	1286	1286
SA	65	62	63
TAS	58	64	64
VIC	511	520	472
WA	19	20	22
Total	1939	1952	1907

ALPACAS

There are no known infected alpaca herds in Australia.

GOATS

Number of known infected goat herds.

	March 08	June 08	Sept 08
NSW	8	8	8
QLD	0	0	0
SA	1	1	1
TAS	3	3	3
VIC	4	5	6
Total	16	17	18

DEER

Number of known infected deer herds

	March 08	June 08	Sept 08
NSW	1	1	1
SA	1	1	1
VIC	2	2	2
Total	4	4	4

Numbers of Assessed Herds and Flocks in MAPs December 2008

Johne's Disease MAP Statistical Return
Dec Quarter 2008

Cattle	MN1	MN2	MN3	Sub-total
NSW	76	132	190	398
QLD	0	0	0	0
SA	51	95	85	231
TAS	23	35	18	76
VIC	76	103	90	269
	226	365	383	974

Sheep	MN1	MN2	MN3	Sub-total
NSW	36	53	179	268
QLD	0	0	0	0
SA	21	42	140	203
TAS	0	4	17	21
VIC	8	14	55	77
	65	113	391	569

Alpaca	MN1	MN2	MN3	Sub-total
NSW	3	20	86	109
QLD	0	0	0	0
SA	0	5	24	29
TAS	0	0	2	2
VIC	0	7	6	13
	3	32	118	153

Goats	MN1	MN2	MN3	Sub-total
NSW	10	15	5	30
QLD	0	0	0	0
SA	0	9	5	14
TAS	4	0	1	5
VIC	1	0	0	1
	15	24	11	50

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