



## *Mycoplasma bovis* 2017 South Island Response

### Frequently Asked Questions

#### What is *Mycoplasma bovis*?

*Mycoplasma bovis* is a bacterium that causes disease in cattle. It has never before been found in New Zealand. The disease has productivity and animal welfare implications as it can cause untreatable mastitis, abortions, pneumonia and arthritis, and can result in significant losses to beef and dairy producers. The disease does not infect people and it does not present any food safety concerns. *Mycoplasma bovis* is widespread internationally and other dairy and meat producing countries successfully manage it and trade in animal products. Its detection in New Zealand does not present any trade concerns.

#### What animals does it affect?

*Mycoplasma bovis* primarily affects cattle. Other animals are generally not infected by the disease. It does not cause disease in humans, and is not a food-safety risk.

In pigs, there are very rare occasional reports of *Mycoplasma bovis* associated with (and possibly causing) severe conjunctivitis, nasal discharge and coughing when animals are kept with infected cattle.

There is a single report that *Mycoplasma bovis* was the cause of pneumonia in farmed white-tailed deer fawns in the USA.

There is a single report of *Mycoplasma bovis* being isolated from a woman with pneumonia, however the woman had also possibly been exposed to other pathogens, and the primary cause of the disease was not established.

North American bison develop disease similar to that in cattle.

#### Where is it in New Zealand?

Cattle infected with *Mycoplasma bovis* are in the Waimate / Waitaki districts of South Canterbury.

#### What has happened so far?

On 22 July 2017 *Mycoplasma bovis* was initially identified in a South Canterbury farm, in the Oamaru area. This bacterium has never previously been identified in New Zealand. The farm is part of the 16 farm Van Leeuwen Dairy Group (VLDG) in the Waimate and Waitaki districts. All 16 Group farms have been under MPI movement control through Restricted Place Notices since the start of the response.

Currently there are eight properties confirmed as infected. Strict cleaning and disinfection protocols are in place for people moving on and off the farms.

On 23 August a non-VLDG farm (IP3) was confirmed positive. The farm is in the Oamaru area and had received animals from an infected farm before 21 July 2017.

Movement tracing from the farm showed that before the response animals had moved to 14 farms (trace farms). MPI has contacted all the farms, given directions on what steps farmers should take, and taken samples from these farms.

On 29 August, another trace farm that had received a small number of calves from IP3 was confirmed as positive (IP6). All calves have been euthanized. The farm remains under movement control and the paddock that housed the calves must remain un-grazed for a minimum 60 days.

On 2 October, the fifth farm in the VLDG was confirmed as positive.

On 12 October, MPI announced that cattle on the infected properties (IPs) will be culled. Industry groups support this approach.

On 4 November, two additional properties in the Oamaru area were placed under Restricted Place Notice following suspicious test results.

On 15 November, one of them tested positive for *Mycoplasma bovis* and was placed under Restricted Place Notice. Both properties neighbour VLDG farms and remain under tight controls restricting the movement of animals and other risk goods on and off the farms.

On 22 November, 2 farms had their Restricted Place Notices lifted and replaced by a Notice of Direction (NOD) which reflects that less stringent controls are needed following the testing carried out on these farms. While this still restricts movements of risk goods, it is the first step in removing all movement restrictions from these farms.

District-wide and nationwide testing of milk samples and selected dairy and beef farms has not identified any other infected farms elsewhere in New Zealand.

### **What should farmers do to protect their farms and animals?**

*Mycoplasma bovis* is a bacterial disease and can be managed through good on-farm hygiene. Basic on-farm biosecurity is recommended, and is particularly important during disease outbreaks such as this one.

Basic farm biosecurity includes monitoring of visitors who interact with cattle, washing and disinfecting of footwear and gear worn between farms, checking and cleaning if necessary any farm vehicles prior to leaving the farm, restricting (as much as possible) movement and mixing of cattle, keeping good, up-to-date health records, and other measures. MPI has produced a cleaning and disinfection guide:

<http://www.mpi.govt.nz/document-vault/19532>

If you buy cattle or use service bulls talk with the vendor and/or your vet to understand their health status.

Practice good on-farm biosecurity:

[Beef+Lamb NZ Dry stock biosecurity guidelines](#)

[DairyNZ Farm biosecurity](#)

Implement three elements of on-farm hygiene

**Separate** – limit the movement of people and equipment on to the farm

**Clean** before disinfecting

**Disinfect** according to the manufacturer's instructions

MPI have developed a downloadable [Cleaning and Disinfection Guide](#).

All farmers should take the time to **update NAIT movement data online**. MPI was able to rapidly trace the animals moved from the infected properties where the farms kept their NAIT movement records up to date and accurate. NAIT is one of the most important tools used by MPI disease investigators when exotic disease is suspected, and it allows investigators to determine where they should search for disease next.

### How can I recognise *Mycoplasma bovis* in my herd?

Farmers should look out for:

- unusual mastitis in cattle that doesn't respond to treatment,
- arthritis in cows and calves,
- late-term abortion,
- pneumonia in calves.
- [Mycoplasma bovis - what to look for](#)

### I think I may have infected animals - who should I contact?

Contact your vet in the first instance, otherwise contact the MPI Exotic Pest and Disease Hotline on 0800 80 99 66.

### Can you eradicate – get rid of – this disease?

At this point in time, that's what we're aiming for. But there is a lot that we still don't know. Once we know where it is in our national herd, we can make decisions around how it can be managed, and if eradication is possible. If it transpires that it's only in a limited number of farms – there is a good chance we can get rid of it. But if we find it much wider spread, this is not likely. It needs to be noted that no other country has ever managed to eradicate it.

### How did it get here?

We do not know for sure how it came to New Zealand or how long it has been in the country. We are looking at six possible means of entry – in live animals, imported semen, embryos, on contaminated equipment, biological material (such as vaccines) and feed. However, it is possible that we never be able to identify the entry pathway. We are tracing movements of possible risk goods onto the affected properties as part of this investigation.

### How does it spread?

*Mycoplasma bovis* is mainly spread between cattle in close contact. Generally prolonged or repeated contact with infected animals is required for the disease to be transmitted.

It may also be spread through contact with mud or dung from infected animals. Although it is very rare for it to infect animals other than cattle, they may possibly transfer disease from an infected animal, therefore it is important to keep infected cattle isolated from cattle and other species if possible.

Extensive testing of a flock of sheep that were in contact with cattle on one infected property showed that the sheep were NOT infected.

*Mycoplasma bovis* can be spread on any equipment used between farms. Because it causes mastitis, milking equipment is particularly important to clean and disinfect if the equipment is shared between properties or herds.

Wind-borne or water-borne spread is not thought to be a major risk

Refer to the [guide on the MPI website](http://mpi.govt.nz/document-vault/19532) (<http://mpi.govt.nz/document-vault/19532>) for advice on good farm hygiene practices.

### Can it live in soil or silage?

*Mycoplasma bovis* **does not** survive in soil for a long period, the stand-down period is long enough to ensure that cattle are not infected from the soil.

Properly made silage with a pH of 4.5 or below and wrapped correctly is not a risk for transmission of *Mycoplasma bovis*. Silage can be tested to ensure it has reached this standard.

### Can it be spread across farm borders?

Yes, repeated cattle-to-cattle contact across boundary fences can spread the infection.

There is some evidence overseas that there is a risk of spread over 1-2 metres however, so preventing fence line contact can prevent spread. Although a low risk this is why MPI is investigating neighbours of suspect properties.

### Can it be spread through feed?

Feeding calves unpasteurised milk is a cause of spread in countries where this disease is established.

For adult cattle, spread through feed is not thought to be a risk.

### Can an infection lie dormant or will it show immediately in every case?

Dormancy is one of the biggest problems with this disease, and is one of the issues with detection of disease. Some cattle may be sub-clinically infected, and never show disease. Other cattle will break with disease only late in the course of being infected, and this can be triggered by increased stress such as calving and milking.

Cattle movement of apparently-healthy but infected cattle is the greatest risk factor in whether a property becomes infected, along with feeding of un-pasteurised milk to calves.

### Does it pass from mothers to calves?

Cow-to-calf transfer during birth is not considered a major route of infection, surprisingly. However, calves fed unpasteurised milk from infected cows can easily contract the disease.

In calves, the disease tends to cause pneumonia that is resistant to treatment with antibiotics, and also arthritis of one or multiple joints. Ear infections (causing head tilt) can also be a sign of this disease in calves.

### Given that semen and embryos are considered to be a possible pathway, why allow them into New Zealand?

There is no documented scientific evidence from any country showing that *Mycoplasma bovis* has been transmitted to a cow in semen. Semen is considered a low risk due to a long international history of safe trade and strict hygiene requirements around collection and use. Currently we do not consider that there is the scientific justification to stop semen and embryo imports, however we are reassessing the risk and testing batches of semen.

Farmers can continue to make their own decisions around the use of AI artificial insemination (AI) this season. MPI believes there is no new information to make this mating season any different to previous seasons. AI providers have developed biosecurity protocols for use following the outbreak. Ask your technician to tell you about them.

To put some perspective around the current situation, the *Mycoplasma bovis* outbreak is New Zealand's first detection, and semen has been imported for many years at the rate of around 250,000 straws a season. If semen was a significant risk factor, we could expect to see a lot more disease than we are.

### Can I move animals off my farm?

Yes, unless your farm has tested positive for infection or you have had a notice issued on you, you can move animals freely.

However, if you have cattle infected with *Mycoplasma bovis* on your property, you will have been given full instructions about what to do. Infected farms are put under legal restrictions and cannot move stock without permission from MPI. Permits may be given to move animals to slaughter or to other infected properties (to prevent for animal welfare issues such as under-feeding), but these will be considered on a case-by-case basis.

### What should trucking companies be doing? How do I know the trucks coming onto my property are safe?

Trucking companies should work with the farmers to meet their hygiene requirements.

Farmers on the Restricted Places must have a permit from MPI to move animals to other farms or direct to slaughter. Each permit includes requirements for cleaning and disinfection of the stock truck.

### What happens to infected animals?

Animals on the infected farms have restrictions in place to prevent them to come in contact with other farms/animals. Some animals have been euthanised by the farmer for welfare reasons. As *Mycoplasma bovis* is not a food safety risk, infected animals that are fit for transport are being permitted to go to slaughter.

Farmers on the Restricted Places must have a permit from MPI to move animals to other farms or direct to slaughter. Each permit includes requirements for cleaning and disinfection of the stock truck.

MPI is culling a large number of animals on the infected farms as part of the efforts to control any spread of the disease.

### What happens to the meat from animals from the infected farms?

*Mycoplasma bovis* is not a food safety risk and there are no restrictions on the meat.

It is common in many food producing nations (like Australia, the United States, and in Europe). In these nations, infected animals that aren't showing symptoms are processed for human consumption.

Most cattle that we're culling as part of the depopulation operation will be processed at meat processing plants. Before animals leave the farm, the animals will be assessed by veterinarians to confirm that they're suitable for transport.

At the processing plants, MPI veterinarians will assess the health of each animal before they get slaughtered. Animals will not be killed for human consumption if they are sick, or are severely injured, or have medicine in their system. This is a requirement of New Zealand law.

After the animals are slaughtered, the carcass and organs are also subject to meat inspection. This is to ensure the meat is safe and suitable for consumption.

All meat processors have a Risk Organism Response Plan (RORP) to work to when handling stock exposed to an unwanted organism. This includes how to manage the waste safely for the environment.

### Can I eat the meat/drink the milk of cattle from infected farms?

*Mycoplasma bovis* is not a food safety risk. There is no issue with eating beef or drinking milk from infected herds.

### What is MPI doing?

A full biosecurity response is underway. Response HQ is at the Animal Health Laboratory in Wallaceville, and Field HQ is in Oamaru, where MPI and AsureQuality staff are now based.

We are working closely with the affected farmers and their veterinarians, as well as with industry stakeholders, including DairyNZ, Dairy Companies Association of NZ (DCANZ), Beef+LambNZ, NZ Veterinary Association, Dairy Vets, and Federated Farmers.

MPI has a 3 pronged strategy to managing this outbreak

**Contain** – Minimise any further spread of the disease.

The farms under Restricted Place Notices require permits to move cattle between farms and to transport cattle direct to slaughter at agreed premises. The meat processor has procedures in place to clean and disinfect the transport trucks before they leave the processor.

Each farm has farm hygiene measures in place to clean and disinfect equipment and vehicles that may have come into contact with cattle or effluent.

**Survey** – How widespread is *Mycoplasma bovis*?

To be able to make decisions we need to understand the extent of the disease. MPI has a multi-layered survey that is taking samples from infected and restricted farms, farms that border those farms, movement traces of stock that have moved to and from farms in the previous 6 months, and a series of regional and nationwide surveys (such as bulk milk samples, mastitic and discard milk samples). So far, more than 50,000 samples have been tested.

MPI is working with NAIT to trace the movements of cattle to and from the restricted farms over the past 12 months.

**Assess the feasibility of eradication** – is it possible to cost-effectively eradicate this disease?

MPI is working with industry and international experts to understand the impacts of the disease and the potential costs of eradication. Based on the information from the surveys we will continue to assess the feasibility of eradication.

## What legal directions are issued under the Biosecurity Act 1993?

### **Restricted Place Notice (RPN) issued under section 130 of the Biosecurity Act 1993.**

- RPNs are issued to properties that are believed to, or suspected of having *Mycoplasma bovis* present (infected properties and other restricted properties).
- The RPN prohibits all unauthorised movements of stock and other risk goods onto and off the farm to minimise the likelihood of the disease spreading from the property.
- Any movement of cattle requires a permit from MPI. The transport vehicles are required to follow a cleaning and disinfection process when they leave the Restricted Place.
- AsureQuality staff are ensuring cleaning and disinfecting and permit protocols are being met.
- Any incidents of non-compliance are followed up by MPI.

### **Notice of Direction (NoD) issued under section 122 of the Biosecurity Act 1993.**

- NoDs are issued to farms when an inspector or authorised person considers that movement of stock and other risk goods from a property poses a risk of spreading *Mycoplasma bovis*. For example, this can be when animals from infected properties have been moved to that property but testing has not yet taken place or results of testing are pending.
- NoD are more flexible than RPN and allows the inspector or authorised person to choose what activities should be prohibited.
- In this response, the NoD does not restrict movement of stock or goods on to the farm but cattle can only move off the farm with a permit.
- Other steps such as cleaning and disinfection of vehicles may be required.
- Any incidents of non-compliance are followed up by MPI.

## Why can't I know who is being contacted by MPI?

MPI is contacting individual farms where there is potential risk of the disease being present. It's a case of no news is good news. If you don't hear, it's not of immediate concern to you.

MPI is not naming affected properties without their consent. This is the law under the Privacy Act.

We are encouraging farmers under controls or investigation to talk to their neighbours and customers, but we are not revealing details of individual farms.

### **Why aren't you putting restrictions on all neighbouring properties to the VLDG and other infected properties?**

We are only putting such stringent conditions on properties where we know there is a definite connection to a positive infection. There is no indication that neighbouring properties are infected – we know the disease moves slowly outside of direct contact between cattle. It's quite a complex legal process with some very tough conditions to meet and we can't just slap it on properties without there being justification of a significant risk. We are testing neighbours as part of our building a picture of the disease spread. But this doesn't mean they're highly suspect. Quite simply we don't need to have the neighbours under controls.

### **Why aren't you putting restrictions on all the trace farms and neighbouring properties?**

See above. Animals on the farms traced from the infected properties are being tested urgently and the farmers given directions on what they should do. Legal restrictions are used when required.

### **Why aren't you stopping transport of stock between North and South Islands?**

It's a question of risk. We know that we have animals on high-risk properties under lock-down. To stop movement out of the South Island to the North Island we'd need to impose a larger control – creating a Controlled Area.

If we do this, there are consequences. Our markets tend to react to the imposition of controls under the Biosecurity Act; so putting in an unjustified control could affect our ability to trade and export.

### **How should lease bulls be managed once they are returned to their home farm?**

Farmers should ensure that they know the health status of the farm that they leased their bull to or from. If they are concerned then they should not bring a bull leased from someone else onto their property, or return their own leased-out bull back to their property or keep the bull separate from other cattle. Your veterinarian can provide more animal health advice.

DairyNZ has worked with MPI and industry to produce advice on "Managing service bulls" that is available for download from the MPI website – <http://mpi.govt.nz/protection-and-response/responding/alerts/mycoplasma-bovis/>

### **What can farm service providers do to protect their business and customers?**

Farms should be using routine on-farm biosecurity practices to minimise risk to their animals. Service providers can help minimise risk by complying with each farm's required biosecurity practices and with the farm's cleaning and disinfection requirements.

- Don't arrive unannounced. Let the farmer know you plan to visit their farm and ask their requirements.
- Work with the farmer to comply with any farm biosecurity requirements.



- Clean and disinfect footwear, protective clothing and equipment before coming on farm.
- Be proactive, assure farmers of your hygiene practices.

### What sort of impact is it likely to have on the New Zealand dairy and cattle farming industries?

*Mycoplasma bovis* is primarily a production and animal welfare issue. Infected animals can become significantly ill with unresponsive mastitis, pneumonia and arthritis, as well as late abortions.

It is not a trade concern as most countries with animal production industries live with it, farm meat and dairy products, and successfully trade in them.

Most affected is likely to be the dairy industry because animals are in closer and more regular contact with other animals increasing the risk of contact with a diseased animal, followed by beef production. Dairy production will be affected (if the disease is established here) and overseas experience gives us confidence about what to expect. Internationally it has shown to have an impact, however, best practice is effective in minimising losses over time - good farm management and well managed animal husbandry, in conjunction with standard on-farm biosecurity behaviour, can minimise the effects on production over time.

### How do I get more information?

Information is on the MPI website: <http://www.mpi.govt.nz/protection-and-response/responding/alerts/mycoplasma-bovis/>. A regular update for farmers and stakeholders is emailed by the response team. To subscribe to this update please find it on the above website and click the 'subscribe' button, or please contact [mbovis2017\\_liaison@mpi.govt.nz](mailto:mbovis2017_liaison@mpi.govt.nz).

### Who do I contact if I have any questions?

Please contact your local vet, or MPI through the Info line: [0800 00 83 33](tel:0800008333) or the Response Liaison email address – [Mbovis2017\\_Liaison@mpi.govt.nz](mailto:Mbovis2017_Liaison@mpi.govt.nz)

## Testing

### How do you test for *Mycoplasma bovis*?

We test for *Mycoplasma bovis* using blood samples, milk samples and vaginal or nasal swabs. Two test methods are in use.

- PCR (Polymerase chain reaction) that multiplies distinctive segments of DNA and detects the presence of the bacteria itself.
- ELISA (Enzyme Linked Immune Sorbent Assay) which detects antibodies in blood. This test has now been established and validated and will allow improved screening of suspect properties, particularly dry stock (non-milking cattle).

### Why is it taking so long to get us test results?

Testing for *Mycoplasma bovis* is complex and it's a big job. Up to 140 animals in each herd are tested using samples of milk, blood, or swabs from the nose and vagina; the lab expects to test well over 50,000 samples during the surveys.

*Mycoplasma bovis* can hide in an infected cow, not showing up until weeks or months later. This means that herds could be tested 3 or more times over 3 – 4 months before we have definite results for each farm.

Unfortunately because *Mycoplasma bovis* is a complicated disease to rule out farmers will have to wait for some time before we can confirm that their herds are not infected. We have to be absolutely thorough in diagnosing positive and negative farms so we can give farmers and the New Zealand public certainty.

Currently we have 30 scientists working in the lab on this, and also staff from other laboratories to help.

### How accurate are the available tests?

The PCR tests (which detects DNA from the bacterium) are very accurate, and we double-check them by sequencing the DNA to ensure positive results are true. However, PCR may show a slight positive signal that *Mycoplasma* DNA is present and further tests (e.g. DNA sequencing) are needed to determine if it is *Mycoplasma bovis* or another species of mycoplasma. The PCR test detects the presence of genetic material in samples and is very sensitive. Unfortunately other mycoplasma species and mycoplasma-like organisms are being identified in samples. This has added complexity to the interpretation of results and repeat tests are often needed to confirm the presence of *Mycoplasma bovis*.

The ELISA serology (looking for antibodies in the blood) can have poor ability to detect infection in new cases, or in apparently-healthy animals. However, when applied to a herd (e.g. testing multiple animals) it becomes more accurate at detecting the herd status of disease. The ELISA testing is useful for determining a property's infection status, particularly for stock that are not milking. The test has a low sensitivity and at least 130 serum samples from a large herd are needed to give a 95% confidence of detecting an animal with antibodies. It is not useful for individual animals.

### Do test results show immediately?

No, because *Mycoplasma bovis* can hide in infected cattle multiple testing rounds are needed before we can confirm that a herd is not infected.

For more information on testing refer to MPI's web page - <http://mpi.govt.nz/protection-and-response/responding/alerts/mycoplasma-bovis/>

### Where can I get my animals tested?

Because *Mycoplasma bovis* is a new to New Zealand organism, MPI's Animal Health Laboratory is very busy testing more than 50,000 samples so far as part of the planned survey and is not in the business of testing commercial samples.

Commercial laboratories now have the ability to undertake testing of healthy service bulls for *Mycoplasma bovis*. This testing is not done through MPI and you should contact your veterinarian for sampling and testing of these animals. It is important that any test results are carefully interpreted together with the lab and your veterinarian.

### Have neighbours been informed/ Are neighbours under any controls?

In other countries where *Mycoplasma bovis* is widespread, across-fence contact is thought to be a method of farm-to-farm spread. Therefore MPI is investigating neighbouring properties, including evaluation of likelihood of stock interaction over the fence, and other risk factors. Testing from these properties is underway to ensure they are free of disease. If any neighbouring properties are positive by laboratory testing, they will also be subject to movement controls and tracing of any in-contact properties. MPI intends to continue this tracing of infected properties until it can define the full extent of disease.

### Is there a risk it may be present in other areas? How likely is this?

The disease is believed to have been present on the infected properties for at least a month before it was identified, possibly longer. In that case, there may be other infected properties in other regions of New Zealand. However there is no evidence of that as yet despite nationwide surveying and sampling.

### How do I know that any stock I'm buying (particularly calves) is free from *Mycoplasma bovis* infection?

At this point in time, MPI believes that the infection is contained to a small number of properties, and therefore most other animals across New Zealand are free of disease.

We believe the risk to most producers to be very low, and will be updating that as the investigation progresses. In general, buying in healthy-looking stock from a single property is the best way of reducing disease risk (of any sort) to your herd.

DairyNZ has developed a [pre-purchase checklist](https://www.dairynz.co.nz/media/5787884/myco-bovis-pre-purchase-checklist-aug-2017.pdf) to help when you're buying stock - <https://www.dairynz.co.nz/media/5787884/myco-bovis-pre-purchase-checklist-aug-2017.pdf>

### How can I assure people that any stock I'm seeking to sell (particularly calves) are free from *Mycoplasma bovis* infection?

At this point in time all stock believed possibly infected has been placed under movement control. If that changes, MPI will provide updates as it is able to.

### If meat processors see animals with suspect symptoms arriving for slaughter anywhere around the country, can they be tested for *Mycoplasma bovis*?

If inspectors at meat processors suspect that animals are infected they report to the MPI Exotic Pest and Disease Hotline – 0800 80 99 66 and the case will be followed up.

### Can we prevent it becoming an important disease for cattle here?

At this point in time, we are aiming to eradicate *Mycoplasma bovis*. However, there is a lot that we still don't know. MPI is still investigating to establish whether the disease is present in our national herd.

### What do other countries do to manage the impacts of *Mycoplasma bovis*?

Good on-farm biosecurity and hygiene practices are key to managing the infection.

For example, refer to the Dairy Australia website for more information about the disease in Australia (<https://www.dairyaustralia.com.au/>).

### Need help?

If you or anyone you know would like support or needs someone to talk with, please contact the *Mycoplasma bovis* Farmer Support Line on 027 444 9380 for a chat, or email: [MBovis2017\\_Welfare@mpi.govt.nz](mailto:MBovis2017_Welfare@mpi.govt.nz). All calls are confidential.

The South Canterbury Rural Support Trust continues to work with the most affected farms, facilitating connections and providing support. The Trust is also promoting greater understanding of *Mycoplasma bovis* with the wider industry to minimise the negative impact to those farms affected. They are encouraging the sharing of the Stakeholder Updates, in a bid to raise awareness and understanding of the *Mycoplasma bovis* disease and response activity. Anyone else who needs support is welcome to phone the Rural Support Trust on 0800 787 254 (0800 RURAL HELP) for a confidential chat.

### How do I find out about Biosecurity Act Compensation?

There is a compensation scheme in place for those affected by legal directions from MPI (Restricted Place Notices or Notices of Direction). Compensation is available for damage or destruction of property or restrictions imposed under the Biosecurity Act 1993 on the movement or disposal of person's goods. Good record keeping is essential to any claim.

Information on eligibility and the process for compensation is on the MPI website: [Compensation under the Biosecurity Act](#).

Questions on compensation may also be emailed to [compensationcoordinator@mpi.govt.nz](mailto:compensationcoordinator@mpi.govt.nz)

## Where do I find more information?

- MPI website - *Mycoplasma bovis*

<http://www.mpi.govt.nz/protection-and-response/responding/alerts/mycoplasma-bovis/>

[Guidelines for farmers](#)

[Farm hygiene poster](#)

[Managing service bulls](#)

[Testing herd and service bulls](#)

[Advice on using imported or local semen](#)

[Mycoplasma bovis what to look for](#)

[Potential impact on the beef sector](#)

- DairyNZ - *Mycoplasma bovis*

<https://www.dairynz.co.nz/animal/cow-health/mycoplasma-bovis/>

[Pre-purchase checklist](#)

[Mycoplasma bovis what to look for.](#)

- Beef + Lamb NZ

<http://beeflambnz.com/knowledge-hub/factsheets/drystock-biosecurity-guidelines>

<http://beeflambnz.com/news-views/m-bovis-update-keep-calm-and-carry>

- Dairy Australia - Mycoplasma in Dairy Herds

<http://www.dairyaustralia.com.au/Industry-information/About-Dairy-Australia/~media/Documents/Animal%20management/Mastitis/Countdown%20news/2016%20-%20Mycoplasma%20in%20dairy%20herds%20fact%20sheet.pdf>

- Expert Q&A on the Science Media Centre

<https://www.sciencemediacentre.co.nz/2017/07/27/cattle-disease-found-nz-expert-qa/>

- The Society of Sheep and Beef Cattle Veterinarians

They have published three documents on the New Zealand Veterinary Association website to support veterinarians and their clients with testing for *Mycoplasma bovis*. Information documents now available include:

[Standard Operating Procedure for Nasopharyngeal Swab Technique for Cattle](#)

[Standard Operating Procedure for Preputial Swab Technique for Bulls](#)

[Testing of Service Bulls for Mycoplasma bovis in New Zealand](#)