Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Mycoplasma bovis

Biosecurity advice for cattle-showing events

Ko Tātou This Is Us
BIOSECURITY 2025

New Zealand Government

Contents

Disease overview

Mycoplasma bovis (M. bovis) is a bacteria that can cause a range of serious conditions in cattle – including mastitis (udder infection) that doesn't respond to treatment, pneumonia, arthritis, and late term abortions. The main ways *M. bovis* spreads is through close and prolonged contact between cattle, and calves drinking milk from infected cows.

Other species such as alpacas, goats, pigs and sheep can harbour the bacteria in their systems but cannot get sick nor pass it on to other animals (including cattle) – these are considered "dead-end hosts".

Risk

The risk of *M. bovis* spreading at cattle-showing events is low, so it's possible for these events to go ahead while the bacteria is being eradicated in New Zealand.

However, appropriate protocols should be put in place to protect cattle exhibits, as there is still some risk wherever cattle may mingle.

Farms that have *M. bovis* or are at high-risk of infection are under movement controls, so cattle can't be moved off these farms without MPI's permission. This reduces the risk of infected cattle being present at events, but because the eradication Programme is ongoing, there will still be affected animals that haven't been identified yet.

Event organisers will need to take the risks into account and manage mitigations when deciding whether to hold their particular event.

Requests for further copies should be directed to:
Email: Mbovis2017_liaison@mpi.govt.nz
Telephone: 0800 00 83 33

This publication is available on Biosecurity New Zealand's website at www.biosecurity.govt.nz/mycoplasma-bovis

The three main ways to prevent the spread of *M. bovis* are:

1. **Keep cattle from different herds separate.**
2. **Sterilise milking equipment between uses.**
3. **Ensure full NAIT compliance.**

1 Keep cattle from different herds separate

M. bovis is mainly transmitted via nose-to-nose, prolonged contact – the type of contact observed within herds. Although the chance of contact prolonged enough to transmit *M. bovis* is low at A&P Shows, it pays to eliminate the risk entirely to give confidence to exhibitors that their stock is safe.

Stabling

Housing animals from the same farm in separate solid wall pens is sufficient separation to avoid nose-to-nose contact. Alternatively, in the absence of barriers, animals should be tethered with at least two metres between herds, whilst also ensuring they have access to food and water.

Transport

Transportation is a stressful event for animals and stress can cause shedding of the *M. bovis* bacteria into milk and nasal secretions, causing them to be more infectious and therefore more likely to spread disease. Asking exhibitors to cart animals of different herds separately will eliminate the risk of spread of *M. bovis* between herds during transport. Note that animal welfare obligations still stand, neither sick nor heavily pregnant animals should be transported. Exhibitors can download the Fit for Transport app for a quick reference guide, available for download at the Apple Store and Google Play.

Wash bays

Wash bays should reside on a concrete pad and have adequate drainage. Provided this spacing condition is satisfied, there should be no cause for concern. MPI has lowered the risk rating of effluent now that we know more about the nature of the bacteria. *M. bovis* rarely lives in the lower GI tract of the animal and, coupled with the fact that it does not survive once exposed to air and UV light, this makes for a very low chance of transmitting the disease through effluent, especially if the run-off is collected and carried away in drains. However, effluent can be the cause of transmission for other diseases such as Johne's disease so easy mitigation can include remoing effluent from thoroughfares and laying down straw. *M. bovis* cannot be transmitted through waterways, nor is it windborne.

Show ring and grand parade

Cattle should be haltered at all times when not stabled including when in the show ring and grand parade. Keep animals from mingling where possible and consider separate entry and exit points to reduce traffic at thoroughfares where contact could take place.

2 Sterilise milking equipment between uses

The sterilisation of milking equipment between uses eliminates the risk of transmitting *M. bovis* via infected milk. It is also important to have adequate spacing between animals of separate herds when in the milking shed to avoid nose-to-nose contact.

The raw milk collected should not be fed to calves not of that cow. Raw milk should either be discarded, pasteurised according to industry standards, or acidified using citric acid.

Information can be found here: www.biosecurity.govt.nz/protection-and-response/mycoplasma-bovis/advice-on-mycoplasma-bovis/advice-for-calf-rearing

A list of approved and recognised dairy maintenance compounds can be found on MPIs website: www.mpi.govt.nz/processing/maintenance-compounds/dairy-maintenance-compounds/

3 Ensure full NAIT compliance

Keeping complete and accurate NAIT records is extremely important to the success of the M. bovis eradication Programme and exhibitor compliance with the NAIT (National Animal Identification and Tracing) Act 2012 is law. All exhibits must have readable NAIT tags including calves, the tags must also be accurately registered to a PICA (Person In Charge of Animals) and location. When a PICA obtains NAIT tags, they have to be registered online to include details of the animal such as age and breed, once the tag has been inserted into the ear.

As well as tag compliance, exhibitors will need to record movement to and from the event. This can be done up to 48 hours before show day and a tick box is available to indicate that the animal will be going home after the show which automates the sending movement back to the home farm – the NAIT contact centre can assist with this: 0800 482 463.

Organisers may wish to obtain a list of RFID numbers of animals the exhibitors are intending on bringing to the show (often the final list isn't decided upon until the day of the show so a list of possible attendees would work also) along with other exhibit and exhibitor information. As an extra measure, organisers could arrange for the cattle to be scanned with a NAIT scanner as they are unloaded at the showgrounds. This way, organisers have a record of animals that attended the show that can be cross-referenced with their records and also be provided to NAIT to ensure the sending movement to the show has been accurately recorded. If any details need correcting, NAIT will contact the PICAs directly.

Understandably, organisers will be bound by what is feasible and practical within their operation. The most important thing is being confident that exhibitors are compliant with NAIT and that they will accurately record movement to the show.

Contact information

If exhibitors want instruction or assistance with NAIT, they can call the contact centre on 0800 482 463, Monday to Friday, 7am to 6pm. They can also arrange transfer over the phone 48 hours before movement to the show grounds.

If organisers or exhibitors want more information on *M. bovis* or the eradication Programme, please:

Email: Mbovis2017_Liaison@mpi.govt.nz
Phone: 0800 00 83 33

Resources

www.biosecurity.govt.nz/protection-and-response/mycoplasma-bovis

www.dairynz.co.nz

www.nait.co.nz

2018 Hawkes Bay Royal Show Cattle Section Biosecurity Policy

Appendices

1. Minimising the risk of *M. bovis* at cattle shows and events fact sheet.
2. The acidification of milk with citric acid guidelines.
3. Example data capture form.

More information and support

Email: MBovis2017_Liaison@mpi.govt.nz
Phone 0800 00 83 33
www.biosecurity.govt.nz/bovis

MYCOPLASMA BOVIS

Minimising the risks at shows and events

Mycoplasma bovis is a bacterial disease that only affects cattle. The main way *Mycoplasma bovis* spreads is through close and prolonged contact between cattle; and calves drinking milk from infected cows.

The risk of *Mycoplasma bovis* spreading at A&P shows, calf days, rodeo and other events where cattle are present is quite low, but there is still a risk wherever cattle may mingle.

Event organisers need to take these risks into account and manage mitigations when deciding if to hold their event while *Mycoplasma bovis* is being eradicated in New Zealand.

Animals on known infected farms are under movement control, and cannot be moved without MPI's permission. However, through efforts to eradicate this disease we are still tracing movements of animals, and we expect there are some we haven't reached and tested. So, it's important you take extra precautions to reduce your chances of spreading *Mycoplasma bovis*.

What can exhibitors do?

- Animals on properties under any suspicion of exposure to *Mycoplasma bovis* should not be transported to shows and events.
- Animals showing clinical signs of **ANY** disease should not be transported to shows, as per normal biosecurity practice.
- Make sure your cattle are tagged and registered with NAIT.
- Keep your NAIT movements up-to-date and accurate and record movements to and from the event. Guidance is available on **nait.co.nz**
- Practice good on-farm biosecurity and clean and disinfect outerwear, boots and equipment before attending a show or event. On your return, clean and disinfect again before taking outerwear, boots and equipment back onto your farm. For more information refer to the guidance on **mpi.govt.nz/bovis**

What can show and event organisers do?

- Ensure that exhibitors and participants are aware of your biosecurity and hygiene recommendations and their NAIT obligations.
- Animals without a NAIT tag should be denied entry and non-compliance reported to MPI.
- Ensure stalls are cleaned out before you put cattle in them, and after cattle are removed. Where possible, don't use the same stalls for cattle belonging to different exhibitors.
- Provide hand sanitiser for anyone likely to be handling the heads of animals from different owners.
- Any milking equipment used at the show should be cleaned and disinfected between uses on animals from different exhibitors.
- Give animals individual water – do not allow animals to drink from shared troughs.
- Best practice is to separate animals of the same species where possible, to prevent the spread of any disease. This can be by separating animals with walkways, using empty pens, and using outriggers or double barriers where animals are in adjacent pens.
- Don't keep animals in show pens for long, to reduce stress and nose-to-nose contact.
- Keep animals from different herds separate and avoid their nose-to-nose contact.
- Ensure pens are secure, and that when animals are out they are tethered or being securely managed by somebody who is strong and skilled enough (this could mean supervising children with calves).
- At rodeos when cattle are using the chute, disinfect all surfaces between each use with approved agricultural disinfectant, mixed as per manufacturer instructions.
- It's an opportunity to teach people about on-farm biosecurity. There's more on **www.mpi.govt.nz/bovis**

More questions?

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Email: MBovis2017_Liaison@mpi.govt.nz
www.mpi.govt.nz/bovis

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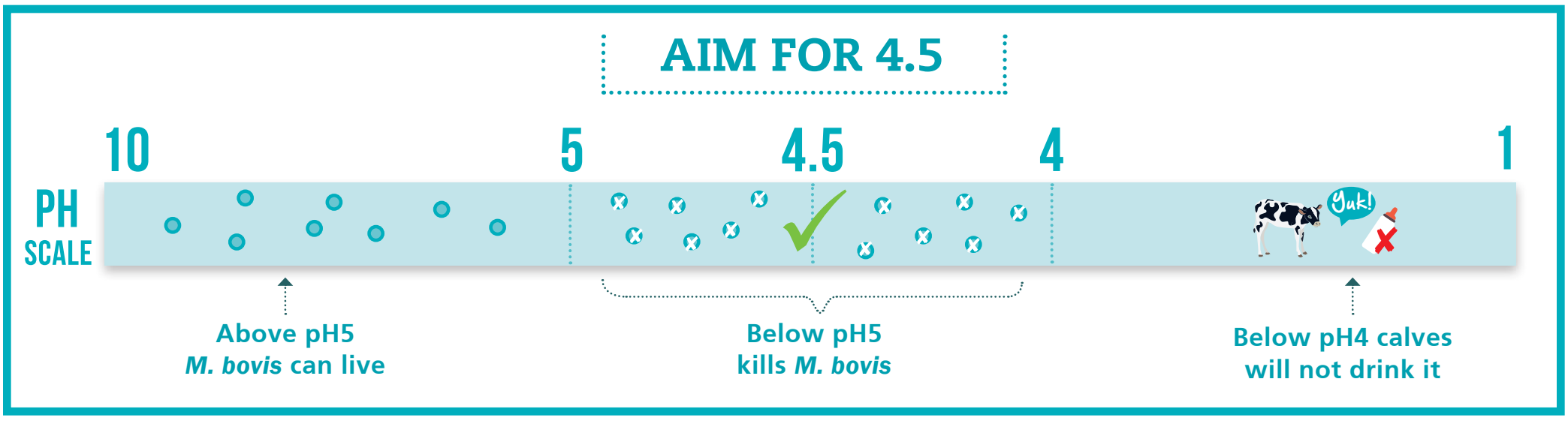
Oct 2018

ACIDIFYING MILK WITH CITRIC ACID

Correctly acidifying milk kills *M. bovis*. The best way to achieve success is to correctly measure milk and weigh acid before mixing.



Guidlines for adding citric acid to milk.

1 Get fresh milk

24°C or below

If milk is too warm it goes lumpy

2 Measure & add acid to milk

Sprinkle & stir gently

ACID	MILK
5.5g	litre
55g	10 litres
110g	20 litres
550g	100 litres

If stirred too quickly it goes lumpy

3 Wait 30 mins and test pH

If milk is below pH 4 it will go lumpy

pH	
5+	✗
4-5	✓
1-4	✗

4 Cover & leave for 8 hours

Leave for 8 hours

5 Stir gently & test again before feeding

Store and feed as normal after this process

DairyNZ

Logo Here

[Location] A&P Show Entry Form

Please complete this form and return to The [Location] A&P Association.

By email to: By post to:

Person In Charge Of Animals (PICA) Details

Name _____

Trading Name _____

Address _____

Email _____

Phone _____

NAIT Number _____

Animal Exhibit Details

When completing this section please provide details of all possible exhibits attending the 20__ show. A copy of this form will be sent to the Ministry for Primary Industries for the purpose of safeguarding the show from the effects of Mycoplasma bovis. MPI will conduct a check of the provided RFID numbers to ensure that the cattle are of no interest to the M. bovis Programme.

RFID Number	NAIT Visual ID	Breed	Age	Stock Class
982 000123456789	*ABCD-12-34*	*Simmental*	*1 y/o*	*Bull*

Please note that any cattle that are non NAIT compliant will not be permitted to enter the show grounds.