

# MRB MYCOPLASMA BOVIS MEMO

Date: 4<sup>th</sup> July 2018

## Overview

### I. Current plan is to eradicate;

Decision to continue to eradicate will be reviewed in Spring 2018 (likely September/October), pending further bulk milk testing when blood antigens are expected to be higher. The decision could also change or be reviewed earlier if either of the following occurs;

- A second strain of Mycoplasma bovis is found.
- A fourth cluster is found outside of the Ashburton/Sth Canterbury/Southland clusters.

Notifications - updated response as of 25<sup>th</sup> June; now Neighbours of at-risk properties will now be informed by MPI of this status, also affected NAIT numbers will be published on MPI's website.

### II. Industry Support;

DairyNZ have 30-40 people on the ground in Canterbury already. DairyNZ is coordinating, Federated Farmers and BLNZ are supporting. The idea is consistency in approach for compensation. MRB supports any impacted clients in conjunction with industry representatives. Fonterra have made their crisis response team available.

### III. Key points on compensation;

- Only claimable on livestock if MPI have *directed to cull*.
- Identified infected individual animals are not claimable, but balance of culled animals will be.
- Costs are claimable only as a result of MPI actions where MPI has exercised powers, and a verifiable loss has resulted.
- Losses must be verifiable, and reasonable steps must have been taken to mitigate any ongoing losses.
- Good record keeping is imperative for potential compensation claims.

## Technical Advice

### I. Tiers of Notice

- 'Trace Link' or 'Properties under Assessment' or 'Surveillance testing'
  - Properties that may have a risk of having Mycoplasma bovis and testing has begun to confirm.
- Notice of Direction (NOD)
  - A legal direction that restricts the movement of animals and risk goods off a farm where it is likely they have received a transfer of cattle from an infected farm, and testing is underway, can have restricted movement if permits are issued.
- Restricted Place Notice (RPN)
  - A legal notice that restricts the movement of animals and other risk goods on/off an infected farm or a farm where there is a very high suspicion of disease and confirmation is expected through coming test results.
  - Transport vehicles must follow a cleaning and disinfection process when they leave a restricted place.
- Infected Property (IP) – technically under an RPN
  - A farm with known infected animals, same legal standards as RPN above apply.

## II. NAIT Transfer Requirements

- Farmers need to retrospectively complete any NAIT transfers that have not been completed so far, this should include historical movements to/from graziers if they were not done.
- NAIT transfers must be completed;
  - For stock transferred to other properties irrespective of distance.
  - For stock transferred to your own property or a lease property you are under the control of, that is greater than 10km away.
- Remember: NAIT compliance is an important prerequisite if a farm is seeking compensation.

## III. Testing

Tests used are two main types, PCR & ELISA tests;

### PCR

- This is the best test for individual animals.
- The PCR (polymerase chain reaction) test works by finding DNA from a virus or bacteria. This test is best able to detect *Mycoplasma bovis* *when the animal is shedding*.
- Infected cattle will definitely shed when showing clinical signs of illness, but may also sometimes shed without showing signs of illness.
- If an animal is not shedding the bacteria, its DNA will not be present in the sample, and the test will be negative (*"not detected"*) It can be used on milk samples, swabs from the back of the throat (hard to get), fluid from swollen joints of clinical animals, and semen or preputial swabs in bulls. It can't be used on blood samples.

### ELISA

- This is the best test for Herds.
- Designed to find antibodies to the bacteria in the animal's blood. This means that, unlike the PCR, the ELISA is looking for the body's immune response to an infecting organism, rather than looking for the organism itself. The ELISA test for *Mycoplasma bovis* is not as useful in the individual animal, or in small groups of animals.
- Can give false positives for other *Mycoplasma*'s (ie. not *M. Bovis*). This test is not available for commercial use in New Zealand at this time but MPI is using it as part of their testing regime.

### For Bulls;

- The current recommended test for bulls is a PCR test. This test looks for evidence of *Mycoplasma bovis* bacteria in the sample. A preputial swab is the preferred sample, or alternatively a swab should be collected from inside the bull's nose (naso-pharyngeal swab).
- Given the possibility that infected animals may shed bacteria intermittently, testing may not completely exclude the possibility of infection so results will be reported as *"not detected"* rather than *"negative"*. Multiple negative tests from bulls of the same property will provide some confidence of a negative farm status.
- Your vet can collect & submit samples for PCR testing, cost approx. \$60+ per sample (pricing is vet practice dependant).

## Security/Biosecurity

### I. Farm Biosecurity plan considerations;

- Boundary fencing security and double fenced if required – prevent animal contact.
- Entrances security – cattle stops / tapes / gates – minimise entry points.
- Road crossings need to have a mitigation plan.
- Notices in view of Farm biosecurity requirements.
- Designated disinfection point for footwear / gear.
  - Disinfection needs clear of dirt & muck.
- Transport operators – notify biosecurity requirements.
  - If been on notified properties will have been cleaned & disinfected.
- Spray and fertiliser contractors – again notify biosecurity requirements.
- Visitors – notify biosecurity requirements and transport around farm.
- Provide a foot bath with disinfectant and a scrubbing brush for visitors to clean their boots when they come on and off the property.
- Map of farm with biosecurity zones (Green/Amber/Red).
  - I.e. Red would be where sick animals are grazed.
- Livestock movements –
  - Grazer status / NAIT compliance
  - Outside livestock status – minimise risk / testing policy
- Staff – all need to know and understand biosecurity policy and precautions.
- Treat the farm as an Island.
- *GET YOUR FARM BIOSECURITY PLAN WRITTEN UP & MAKE IT 'LIVE'.*

### II. Grazing NOD Herds

Graziers can graze stock under Notice of Direction (NOD) with MPI consent in advance.

- The remainder of the grazing property will not attract the same status as the property of the NOD herd, so long as an approved management plan is adhered to.
- If stock get elevated from NOD, to Restricted or Infected, once the grazing stock leave the property, the area that was grazed by the NOD stock will have to observe 60 days fallow for decontamination.

## Farm Systems Impacts and Thinking

### I. Dairy

#### Bulls

- Plan early.
- Source bulls direct from breeding property known to be clear of M. Bovis.
  - One source will reduce risk - virgin bulls should be lower risk.
- PCR through vet testing available - three tests need to be taken, each 14 days apart.

#### Artificial Insemination

- Some looking to supplying own insemination gear for technician to use.
- Human/camera detection of bulling cows is not always reliable (seen high empty rates in some cases with no Bulls used).

## New suspect animals into a Herd

- If a mob is *suspect* then Asurequality can assist with policy.
- Should be kept under quarantine as required until tested clear - need 3 blood tests.

## Calf Rearing

- Penicillin / Mastitis cow milk needs to be discarded.
- Keep quarantine areas where calves loaded out (ie. bobbies / sale calves) and separate from replacement calves to reduce external transfer risk.
- Discussions early with Graziers as to their biosecurity protocols and risk.

## Self-Containment

- Different drivers for self-containment than *pre Bovis* days.
- Some indications from industry that demand for Runoff blocks is increasing.
- Wintering cows on farm – we have some clients doing this for several seasons now.
- Replacement stock still present moderate risk being grazed off – exclusive grazing lower risk.

## II. Non-Dairy

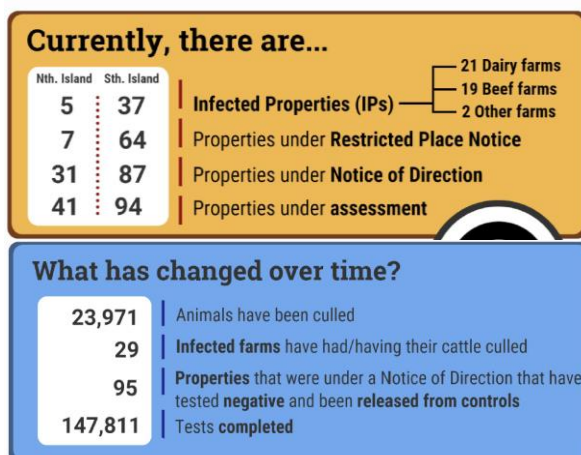
### Calf Rearers

- Unlikely to look at purchasing liquid milk due to risks – likely more milk powder used.
- Will look to contract direct with dairy farmers – will be less buying through saleyards.
- Should be seeking a copy of the supplying farmers MPI notice stating the property is clear from Mycoplasma Bovis.
- Should also be seeking declaration that the calves have only been fed only powdered milk, or whole milk from the sourced property.

### Stock Buyers

- Should request a declaration that the calves have been sourced from a property that has been tested clear of M. Bovis and have only been fed powdered milk, or whole milk from the sourced property.
- Request a declaration that stock have only been grazed with other stock meeting the same standard.

### Biosecurity NZ update as of 25<sup>th</sup> June;



Final word: Some advice may change if the response changes.