



Mating management – service bulls and semen

Mycoplasma bovis (*M. bovis*) is spread from infected to uninfected groups of cattle through the movement of cattle and the feeding of milk containing the bacteria. The risk of transmission via semen is low.

Testing for *Mycoplasma bovis*

There is no “perfect” test for identification of individual *M. bovis*-infected cattle.

There are currently two tests in use to detect *M. bovis*.

The ELISA test detects antibodies that the immune system produces in response to the disease. It is a very good test when applied at the herd level, however a small percentage of truly infected animals will test negative (i.e. false negatives) and a much smaller percentage of truly uninfected animals will test positive (i.e. false positives).

The PCR test detects the presence *M. bovis* DNA in a submitted sample. For the PCR test to detect the presence of the bacteria the sample must be collected from a site containing the bacteria (i.e. a tonsil swab, a nasal swabs, a milk sample, or a semen sample) at the time the bacteria is present. Therefore, a negative PCR result on a single sample collected from a bull at a given time point does not confirm the absence of infection.

The best indicator of a bull’s *M. bovis* infection status is the infection status of the group(s) of cattle it came from.

Properties from which cattle produce test results that indicate *M. bovis* infection will be served Notices of Direction or Restricted Place Notices from MPI that restrict the movement of cattle off the property. Receivers of any cattle (including bulls) that were on these properties while they were infected will be contacted by MPI. Therefore, it is essential that all cattle are identified with a NAIT-compliant tag and all cattle movements are recorded in NAIT.

Recommendations for management of bulls

Bulls that have been in contact with infected cattle and then move to another property are at extremely high risk for spreading *M. bovis*.

1. Sourcing bulls

The bulls that present the lowest risk of *M. bovis* introduction to your property are those that have been on the fewest number of other properties where all between-properties movements have been recorded in NAIT. Be sure to ask questions about the mixing and trading practices of the property of origin.

Some farmers may wish to have an even higher level of assurance that sourced bulls are not infected with *M. bovis*. PCR testing for *M. bovis* is commercially available and can be performed on a range of sample types, including semen samples, deep nasal swabs (nasopharyngeal swabs), preputial swabs, and tonsillar swabs. Speak to your private veterinarian if you’re interested in having any cattle tested.

2. Bulls arriving on farm – all ages

Bulls must arrive on farm with a NAIT-compliant tag and the movement recorded in NAIT as per the NAIT Act. Their lifetime movement history should be made available. Make sure you let the vendor or agent know that you expect to receive this information. Minimising the number of farms bulls are sourced from will simplify this process.

3. Bulls leaving the farm

If bulls are leased talk over the options with the owner. Bulls that have been to the fewest number of properties prior to slaughter present the lowest *M. bovis* transmission risk.

R2 bulls – once mating is finished it is recommended that these bulls are sent directly to slaughter, and certainly not used for servicing any other farms. Ideally, they should go from the farm to a slaughter premises directly and not via saleyards or any other intermediate stopping point.

Transporting animals

All animals should be transported on clean trucks.

Any disinfectant approved for use in dairy sheds is satisfactory for disinfecting equipment used with cattle if it is made up and used according to the manufacturer’s instructions.

Using semen from NZ or imported from overseas

The Import Health Standard (IHS) that regulates the importation of semen into New Zealand recognises that semen is a potential pathway for *M. bovis*. *M. bovis* can survive freezing, and antibiotics routinely used in the processing of frozen semen may not be completely effective in killing mycoplasmas. However, the risk of transmission via semen is low. The IHS has controls in place around the husbandry and health status of donor bulls to reduce the risk of introducing disease. Domestic semen suppliers may have processes in place to reduce their risk of *M. bovis* infection. Ask your semen supplier about the lifetime traceability of donor bull(s) and on-farm management and mixing of donor bulls.