

Mycoplasma bovis – a request for help from practitioners

The discovery of *Mycoplasma bovis* causing disease in South Canterbury has led to a variety of comments and calls for particular actions (like whole herd slaughter), so, having discussed this disease with several of you, a perspective about what MPI is trying to achieve might be useful particularly if you have questions from concerned clients.

The prime (and not easy) task of MPI is to try and establish whether this is a new incursion of *M. bovis* into New Zealand or whether *M. bovis* has been here undetected for some time. Until this is established MPI have to treat this as if it were a new incursion and quarantine the farms, as this will provide the best platform for eradication if that were to become the chosen option.

A bulk milk survey almost 10 years ago found no evidence of *M. bovis* in NZ (McDonald et al, 2009). Could the organism have been present despite this survey not detecting it, or could it have entered NZ sometime in the last 10 years? Could farms have *M. bovis* in their cattle and not know about it? It is certainly possible for disease agents to be present silently in herds and to go undetected. As you will know there is a difference between an animal being infected with an organism and having disease due to that organism. This is a useful point for farmers to grasp.

If you are trying to help your clients understand this point then because of its national prominence the situation with meningococcal meningitis in humans may help. A good percentage of the healthy human population carry the offending bacteria in their throats and factors besides the presence of the organism determine whether individuals go on to develop meningococcal meningitis. The same principle applies in animals and environmental factors including the type of livestock production system have an important effect on how and which diseases manifest. *Histophilus somni* is widespread in cattle throughout the world, and although we see a few cases of pneumonia in calves due to this organism, it is silently present in most herds. However, when cattle are put in feedlots some will develop the encephalitic form of this disease (infectious thrombotic meningoencephalitis), a disease virtually never seen in cattle outside of feedlots.

MPI has initiated wider surveillance throughout New Zealand, although trying to detect an organism like this, if it is silently present in a herd, may not be easy. We are not aware of all they will do, but wider surveillance will include looking at diseases that might be due to *M. bovis*. So for example, milk samples coming into our laboratories are being routinely sent to MPI's Animal Health Laboratory to be screened for *M. bovis* by PCR.

The important role you have as practitioners is to report any situations that make you suspicious of the possibility of *M. bovis* infection (as outlined in emails from MPI via the NZVA) by calling call MPI's exotic disease and pest hotline - 0800 809 966. We do not have any capability of testing for *M. bovis* ourselves – only MPI has that capability. If you have not already and would like to receive *M. bovis* updates from MPI send an email to MPI asking to be put on the distribution list (email: MBovis2017_Liaison@mpi.govt.nz).

Useful reading:

MPI has supplied this update for veterinary practices on the *M. bovis* response currently under way in the South Island: <http://bit.ly/2vQiU4O>

Dairy and Beef Industry interim guidance for farmers can be found here: <http://bit.ly/2wJOeyu>

MPI media update 1st August 2017: <http://bit.ly/2vG0ROn>

Reference:

McDonald WL, Rawdon TG, Fitzmaurice J, Bolotovskii I, Voges H, Humphrey S, Fernando K, Canagasebey Y, Thornton RN, McIntyre L. Survey of bulk tank milk in New Zealand for *Mycoplasma bovis*, using species-specific nested PCR and culture. *New Zealand Veterinary Journal*. 2009 Feb; 57(1):44-9.