



## JUNE 2018 UPDATE

*The Veterinarians and Staff at Animal Breeding Services have put a great deal of thought, research and planning into how to manage the risk of Mycoplasma bovis while continuing to offer the services of Embryo Transfer, Artificial Insemination and Semen Collection.*

### OUR DONOR CENTRES

ABS operates a Bull Centre and Donor Cow Centre in the Waikato. The following measures are currently in place to manage Mycoplasma bovis concerns.

All animals at the centres will be accompanied by a declaration from the owner or farm manager that they do not have a risk background in regards to Mycoplasma bovis.

Donor cows and bulls will be individually Mycoplasma bovis tested (using the PCR test) and reported as NOT DETECTED before entry to the centre.

No animals mix with on-centre animals without have met entry criteria.

The centres are double fenced along boundaries and between isolation areas enabling separation of stock.

We are audited by Asurequality, every 6 months, for export purposes.

Bull collection and donor cow collection facilities are cleanable and get

cleaned and disinfected at least daily.

Semen processed at Animal Breeding Services always has antibiotics added which are regarded to have some effectiveness against M. bovis.

All visitors need to sign in and use the footbaths provided.

### ON FARM WORK

It is understandable that in the current environment, some farmers will prefer to retain animals on farm and have Animal Breeding Staff come onto the farm to collect oocytes/embryos, carry out AI or ET and fertility test or collect semen from bulls.

For 2018, Animal Breeding Services will be resourced to carry out more work on the farmers' premises. We will congregate work into regions and anticipate regular visits to Waikato, Bay of Plenty, Taranaki, Manawatu, Northland, Canterbury, Southland and Otago.

Please note there may be less flexibility in regards to the day that your work can be carried out than in previous years.

The following measures are currently in place to manage Mycoplasma bovis concerns when Animal Breeding Services staff are working on your premises.

Equipment used is either new, autoclaved or disposable or able to be cleaned and disinfected easily.

Please note that our new TVR probes are smaller, sealed units which enable cleaning and disinfection to be easily and practically carried out between animals or farms.

Boots, leggings, aprons worn by staff are always cleaned and disinfected between farms.

Our preference is to meet the farm manager / owner in the first instance, to ensure we are compliant with farm procedures and he / she is satisfied with our plan. Part of this will be ensuring a cleaning station is present to facilitate this.

Rubbish will remain on the farm. Our staff will have rubbish bags but may also use rubbish bins on farm.

*Our staff at Animal Breeding Services are highly aware of the situation and are trained annually in disinfection and hygiene by the Team vets. All Animal Breeding Services teams are led by a veterinarian. Animal Breeding Services teams will carry a copy of our Standard Operating Procedure for Disinfection and Hygiene with them should wish to inspect it.*

*We welcome your feedback if you are concerned about our standards either directly to the team leader or by phone to our office.*



## SEMEN AND EMBRYOS

The risk of *M. bovis* transmission by ET or AI is low and much lower if control measures are put in place.

## IVP EMBRYOS AT ABS

**Animal Breeding Services has voluntarily put additional measures in place in the In Vitro Production lab to manage *Mycoplasma bovis* concerns.**

Oocytes from individual animals are always separated at collection and embryos from each donor remain separate throughout the IVP and ET process.

IVP is inherently a very sterile, structured process. But we have tightened our processes to ensure there is no risk of contact between different donors eggs or embryos within the IVP laboratory.

In the unlikely event that the *Mycoplasma bovis* organism were to end up being carried with the oocytes OR the semen into our IVP process, we

need to know before we transfer the embryos. We will take a sample from each donor consisting of the media transporting oocytes and the IVF media which contains semen and unfertilised oocytes and have this tested with the PCR test for the presence of *Mycoplasma bovis* DNA. The testing will be carried out in Hamilton with a 1 to 2 day turnaround, so results will be available before the embryos are transferred. This test should be highly sensitive in detecting *Mycoplasma bovis* in the embryos. Please note that this testing will not be a reliable test of the donor status but it should be highly accurate in respect to embryo status.

**This measure is ONLY available with IVF produced embryos. MOET derived embryos are in the cow at this point and cannot be tested in this manner.**

## GENETIC INSURANCE - EMBRYOS CAN HELP

Producing embryos by IVP and transferring a percentage of the embryos into your own cows and a percentage into the ABS recipient herd will be an effective risk mitigation. Should the farmer's own herd become infected, the Animal Breeding Services herd will be an effective safety net for your genetics. This is only possible because of the embryo testing that Animal Breeding Services carries out.

**To discuss this further or for ET Bookings call Jacqui Forsyth or Mariela Robledo:**

**ABS OFFICE** 07 843 3808  
**JACQUI FORSYTH** 027 4727 231  
**MARIELA ROBLEDO** 022 1708 724

**For more information regarding semen collection or fertility testing bulls call Darren Williams or Andrew Russo:**

**DARREN WILLIAMS** 027 2176 750  
**ANDREW RUSSO** 022 3764 027

## AI IN BEEF HERDS

Animal Breeding Services carries out Fixed Time AI of approximately 5000 cows per year in beef herds. AI may be an option to reduce the risk of beef herd exposure to *Mycoplasma bovis*.

**If you would like more information call Andrew Russo on 022 3764 027**

## RECIPIENT PROVISION

ABS is working extremely hard to minimize the risk of obtaining *M. bovis* with animal movement.

Prior to purchase we require individual farm of origin declarations that satisfy us that the source of cows does not pose undue risk in regards to *Mycoplasma bovis*. Since the start of 2018, our policy is to no longer buy recipient cows through sale-yards.

We are carrying out voluntary bulk milk and sick-cow bucket milk testing for *M. bovis* PCR on a weekly basis on our milking herd. All tests to date, have not detected *M. bovis*.

By the 1st day of calving 2019, we plan to have installed a milk pasteurisation unit which has been demonstrated to destroy *Mycoplasma bovis*, Johnes disease and other pathogens without reducing colostrum value. This approach has been demonstrated to improve calf health where *Mycoplasma bovis* occurs. The decision to install will depend on government policy. While eradication remains there is limited value in installation but if MPI moves to *Mycoplasma bovis* control, pasteurisation will be a priority.

## OTHER DISEASES

*Mycoplasma bovis* is not the only disease we contend with. Animal Breeding Services manages the following diseases in both donors and recipients:

**BVD.** All donors and recipients are blood tested negative and vaccinated

**EBL.** All donors and recipients are blood tested negative

**Leptospirosis.** All donors and recipients are vaccinated

**Clostridial diseases.** All donors and recipients are vaccinated

**Rotavirus.** All recipients calving with Animal Breeding Services are vaccinated prior to calving.

**TB.** NAIT compliance is ensured.

If there is one thing good to come from the appearance of *Mycoplasma bovis*, it will be that compliance around disease control including disinfection and hygiene and NAIT compliance will be given a much higher priority.

		Advantages	Disadvantages
<b>Donor TVR</b>	On Farm	M. bovis disease status of farm may have lower risk	More challenging to get same number of sessions per donor per year
		South Island yearlings can be done later and will be slightly older	
		May collect other donors while on farm	Some increased travel cost outside Waikato and Bay Of Plenty
	On Centre	More sessions per year	Increased risk associated with M. bovis
<b>Embryo Transfer</b>	On Farm	Lower cost - possibly not really lower costs if all on farm costs are taken into account	Travel costs
			High % have to be frozen
			Mostly lactating cows
	On Centre	De-risks by getting some genetics off the farm	Cost appears higher
		Bulls born on calf contracts can move directly to Hamilton bull centres	Risk of M. bovis occurring in ABS farms (this may be a balanced risk for breeder's own farm)
		Costs largely results based	
		Able to transfer most embryos fresh	
		All non-lactating cows	

