



The magazine of Cambridge Vets *treating all animals large and small*

June 2018

MYCOPLASMA AND BIOSECURITY

As you may have heard (!) MPI and other stakeholders have elected to eradicate *Mycoplasma bovis*. This will be phased over 1-2 years, but at this stage means the culling of all cattle on Infected Properties and Restricted Properties. *M. Bovis* has probably been in NZ since late 2015/early 2016 according to analysis of genetic mutation rate and stock movement tracing. It is a constantly changing landscape, but below are recommendations for prevention and risk reduction practices. The main methods of transmission are movement of infected cattle, direct cattle to cattle contact and feeding contaminated milk to calves.

Biosecurity

Concentrate on reducing the introduction of (potentially infected) animals into the herd:

- ◆ Assess biosecurity risks on your farm; ask your vet for assistance
- ◆ Ensure all animals that are moved (on or off farm) have a NAIT tag for traceability. NAIT documentation should be completed thoroughly and promptly for every movement
- ◆ Have open conversations with the farmer you are purchasing animals from, or trace the animal back to its original farm. Ask for *M. bovis* bulk milk sampling results
- ◆ If you can, get yearling bulls that have not been used elsewhere, from reputable farms with a closed system. Use only one supplier
- ◆ Extend the AI period to reduce the number of bulls needed on farm (or go AI-only)
- ◆ Ensure neighbouring property borders are secure
- ◆ For heifers or cows at graziers – avoid mixing different source groups
- ◆ Hose down the stock yard and pens after cattle have gone through them
- ◆ Graziers: Feed troughs can get contaminated with saliva - keep them clean and use the same ones for the same source mob only
- ◆ Minimise the number of visitors on farm and get them to sign in (or have a look at the OnSide app)
- ◆ Visitors must brush, wash and then disinfect boots as they come on and off farm. Any household or dairy disinfectant is effective against *M. bovis*

Milk and Calf Feeding Practices

- ◆ Do not feed waste milk to calves
- ◆ Pasteurize milk before feeding to calves (this will help reduce Johne's Disease too) or acidify the milk to pH4.5 with citric acid (recipe available on Dairy NZ website)
- ◆ Calf Rearers: only use milk of the farm that the calves were purchased from. Ideally use only one supplier for both calves and milk, preferably one with a closed herd and excellent biosecurity
- ◆ Segregate and milk last all mastitis cows. Both *M bovis* and *Staph aureus* are highly contagious via the milking machine route

Testing

- ◆ A commercial PCR test is available, BUT it is not very sensitive ; *M bovis* is very hard to detect, because cattle shed the bacteria intermittently. A "not detected" result is not a guarantee of no infection
- ◆ It should be used to screen mobs —it is not suitable for testing of individual animals
- ◆ Bulls can be tested by naso-pharyngeal or sheath sampling but good facilities are needed
- ◆ Until a good test becomes available, the focus should be on biosecurity and traceability of animals, to minimize the risk of *M. bovis* introduction into your herd

Monitor for the signs

- ◆ Grotty mastitis, often in multiple quarters, that does not respond to treatment
- ◆ Swollen joints
- ◆ Pneumonia (mainly seen in calves)
- ◆ Head tilt (middle ear infection, mainly in calves)

If you are concerned, please contact us or MPI on 0800 809966

Most importantly though, be kind to yourself and your neighbours. If you need someone to talk to, please contact the **Rural Support Trust** (0800 787254).

COLOSTRUM AND CALF DIARRHOEA

The most critical aspect of calf rearing is colostrum management. Failure of Passive Colostral Transfer has a major impact on calves getting diarrhoea and other diseases. Colostrum is the first milk - the rich, thick yellow stuff produced for the first few days after calving. It is highly concentrated in nutrients vital for the wellbeing of the newborn, in particular energy and immunoglobulins. These antibodies are absorbed and give systemic protection to the calf against many infectious diseases. However, they are only absorbed through the gut wall for the first 12 hours of life; after this the gut “closes off” to them. Colostrum after this window of time is still useful as it yields local immunity in the guts and is a great food, but the antibodies are no longer absorbed into the bloodstream.

In addition, production of colostrum changes to production of milk over 3 or 4 days. The first colostrum is golden; it has the highest level of protection. Also, not every cow is the same; some produce better colostrum than others. This can be measured simply with a Brix refractometer ; you put some milk in it and read off the protein levels. So calves need to be fed 10% of their body weight in colostrum /2-3 litres within the first 12 hours of life, and it needs to be good quality. In practice this means:

- Ideally, collecting calves twice a day if possible (especially in bad weather when the calf is less likely to suckle from its mum in the paddock)
- Monitoring them individually and ensuring they drink, and stomach tubing them if they don't
- Checking colostrum quality with a brix refractometer and ensuring the best stuff is given to newborns or
- Providing day 1 colostrum to day 1 calves



Research by Cuttance and Denholm has shown that the cleanliness of colostrum is also critical. Colostrum contaminated with bacteria is compromised in its efficacy, possibly due to binding of immunoglobulins. So:

- Clean dirty teats (dry wipe) before applying cups
- Ensure all buckets, storage vats, calfeterias and teats are spotless; clean and disinfect them daily.

Clean, dry, warm pens are also of utmost importance. Cold, wet calves sitting in muck are much more likely to get sick! High numbers of calves with diarrhoea or navel infection and joint ill would be suggestive of a colostrum failure or environmental mismanagement. Remember to spray the navels with iodine, and replace the bedding regularly and disinfect pens frequently.

If your calves do develop diarrhoea, the most important thing is to supplement them with extra fluids, and to replenish them with electrolytes. Whatever the cause of the diarrhoea, they will need twice as many feeds for fluid intake to counteract dehydration, and electrolytes to replace those lost in the scours. These salts are vital for the function of muscles and nerves. The best electrolytes also contain bicarbonate to counteract the acidosis that often develops. Severe cases may need intravenous fluids. If the diarrhoea is nutritional, a few feeds of electrolytes and access to natural clay binders such as OptiGuard will probably suffice. However, many cases of scours are due to “a bug”, and the calves may get very sick and die. There are multiple causes of infectious diarrhoea, and many need different treatments other than antibiotics, so it is most important to take some faecal samples and find out what the bug is. For example – E coli, Salmonella, Rotavirus, cryptosporidia, Coronavirus, coccidia, worms, BVD....some of these can be combatted with vaccination, others with antibody supplements.

A detailed guide is available on our website:

<https://www.cambridgevets.co.nz/Farm+Animal+Services/Farm+Animal+Information/Cattle/calfscours.html>





Spring Checklist

At Cambridge Vets we have a comprehensive range of what we think are the best products in the market place, at competitive prices and with professional advice to ensure you get through this season without a hitch.

Calving gear

- ☐ Ropes
- ☐ Chains
- ☐ Handles
- ☐ Disinfectant
- ☐ Lube
- ☐ Gloves
- ☐ Penicillin
- ☐ Oxytocin



Metabolics

- ☐ Calcium
- ☐ Magnesium
- ☐ Oral treatments
- ☐ Ketol
- ☐ MPG
- ☐ Starter Drench
- ☐ Rumenox



☐ Mastitis treatment

- ☐ Intramammary
- ☐ Injectable
- ☐ Bulk Magnesium
- ☐ Molasses
- ☐ Calcium
- ☐ Salt
- ☐ Eprinex/Dectomax/Genesis/Drench



☐ Teatspray

- ☐ Udder Cream
- ☐ Hoof gear



Calves

- ☐ Iodine spray
- ☐ Electrolytes
- ☐ Tags
- ☐ Feeders
- ☐ Shed disinfectant
- ☐ Teats



Welcome to all new farmers in the district!



Join us now and get your first visit fee and mileage FREE of charge!

...and membership to the Cambridge Vet Club for 1 year FREE of charge!

Membership reduces your visit fee and mileage to club rates.



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Thurs - Fri 8am - 5pm
Sat 9am - 12:30pm
Sun 9am - 12pm

41 Empire Street

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www.cambridgevets.co.nz



Spring Product Deals

Kelvin has put together some early bird deals on these essential spring products.

Bomac metabolic products: If you buy a box of 12, you will get one flexipack free!

This includes the entire injectable range. The Bomac flexi pack **range** is proven and reliable. Get those cows up and milking. We stock the professional range of these products which includes a dose of B12 to boost appetite. Our recommended treatment for down cows after calving is a bag of the appropriate calcium in the vein followed by an oral dose once the cow can swallow well and is alert. This will help to stop these cows relapsing and keep them eating. Remember that products containing dextrose like Glucamax/Glucalphos should only be given in the vein. They are not absorbed well from under the skin.



Oral calcium products: We highly recommend the use of oral calcium products in conjunction with under the skin treatments, as long as the cow has a good swallow reflex. Oral calcium products give much more calcium than putting a bag under the skin and it lasts much longer. We find it drastically reduces the number of milk fever cows that relapse. Most of these products have a burst of energy as well. We stock the following proven oral products:

Calform Plus: Rapid acting calcium and a shot of energy that's easy to pour. The vets choice.



Oral Max: 650ml bottle and 10 litre packs.

Starter plus 200 litre: Our proven cost effective post calving start up drench. Keep them on their feet and eating through the transition period.



Drenching: We recommend all heifers and lighter cows are drenched at calving. There is good research work using Eprinex, in NZ, to show on average heifers get in - calf 12.9 days earlier and cows give an extra 7.4 kg of milk solids during lactation if treated as they calve.

Eprinex pour-on: Buy a 25ltr and get a free bag and belt.



Boss pour on: Buy a 5ltr and get a free coffee pod machine.

Genesis pour-on: 5.5 litre

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METABOLICS & MILK FEVER

The cow undergoes a huge metabolic shift as she calves and comes into lactation.
Her demand for energy and minerals shoots up, often faster than the diet and body can allow for.

The classic **Milk Fever** is a deficiency in calcium. As this is required for the functioning of muscles, the cow is often wobbly, or down and unable to get up. She is recumbent, and looks all floppy, often with an S-bend in the neck. Cows are most susceptible to this at the time of calving and for a few days after; by this time the body has normally adapted through increasing the circulating levels of calcium.

Treatment: Is the administration of calcium, either in the vein or via an oral drench. Prevention normally consists of supplementing the herd with magnesium from a month before calving, as this is an essential catalyst for the mobilization of calcium. Options include water treatment, pasture-dusting, boluses or drenching (Moremag is a drench that lasts for 10 days).

However, magnesium can be a primary deficiency in the form of **Grass Staggers**. These cows may also be recumbent, but they tend to be twitchy, often with tremors, but care needs to be exercised as their nervous system is excitable and they are prone to charging!

Treatment: Is with administration of magnesium under the skin or as an oral drench. Intravenous magnesium may cause heart failure, so caution is advised to say the least! Affected animals may even start convulsing or paddling. Both Milk Fever and Grass Staggers can be fatal, and the longer the animal is down, the more muscle damage she suffers, and the lower her chances of recovery.

The other two components of metabolic issues are **low phosphorous** and **ketosis**.

Low phosphorous may complicate milk fever, and the distinguishing feature is that it initiates a haemolytic anaemia leading to redwater (although there are also other causes of red urine). **Ketosis** is when the cow does not have enough energy for the demands of lactation; the body produces ketones as a short term energy source, but as these levels rise they cause her to become slow and dopey. This can be a big problem for the herd as a sub-clinical picture, leading to reduced milk yield and a gateway to follow-up diseases & reduced fertility. **We can check the herd for ketosis about 2 weeks after calving with a cow-side test.**

For details on supplementation & treatment, please see our website or one of our vet team.

In the spring time, prompt treatment and good nursing are essential.

KETOSIS

Ketosis is a deficiency of energy, leading to fat mobilization, which makes the cows feel dopey and causes reduced production and is a gateway disease to metritis etc.

CALF HEALTH

Ensure calf pens are clean, disinfected, dry and warm with a separate isolation pen. Colostrum intake is so critical; ensure systems are in place to get adequate volumes of Day 1 colostrum into day 1 calves on Day 1!

METABOLICS

Dry cows should be getting magnesium, and this needs to extend to calved cows through spring. Options are dusting / feeding causmag (80+g mag oxide depending on wastage), Mag chloride or sulphate through the water (max 60g per cow daily). Colostrum cows may benefit from limeflour (150g) or a starter drench. Maize silage helps lower the DCAD, but anionic salts can also help for the springers. If maize is being fed, extra magnesium, limeflour and salt may need to be added as it is low in these. If Fodder beet is being fed, phosphorous may need to be added.

SPRING PREPARATIONS

MASTITIS

With an industry focus on reducing antibiotic use, it is really important to minimize mastitis: get the milking plant serviced by MPTA, address any challenging areas of mud, get heifers teat sealed, train staff up on the importance of teat spraying and mastitis detection by stripping / RMT.



ALPACAS—DON'T FORGET THE “D”!

Because alpacas evolved in the upper Andes, they often get short of vitamin D in our NZ winter due to relatively low UV exposure. This affects calcium and phosphorous balance and can lead to rickets. This can present as swollen bones / joints and lame or lethargic animals. A simple preventative is an injection of Vitamin D, especially to growing crias and animals with dark fibre who are more prone to this problem.



Pet Lambs

Choosing your lamb:

Pick a big, healthy lamb. The smallest may be the cutest but it may be at greater risk of becoming ill. Make sure your lamb has had plenty of colostrum. Check it is bright and bouncy, that its eyes are clear, its tail and bum clean, and that there is no swelling around the joints or the navel, and it is not lame or lethargic. Friendly natured animals are also more rewarding! You will need a dry warm shelter, a lamb coat, and feeding accessories.

Feeding your lamb:

Feeding instructions are clearly written on the bag of milk powder. As a general guideline, a lamb will need 6 feeds of 150ml at days 2-4, 4 feeds of 250ml at days 5-7, 4 feeds of 350 at days 8-21 and then 3 feeds a day with access to pellets. You can decrease milk feeds as their grass intake increases. They should be weaned around 2- 3 months (or after Ag Day!). Make sure the mixing jugs, bottles and teats are cleaned in warm soapy water after every feed. Any changes to feeding routine or feed should be done gradually to allow the lamb's digestive system to adapt. Look out for bloated tummies! This can be fatal. It is often due to a bacterium called Sarcinia, and can be avoided by yoghurtizing the milk. The recipe is on our website: <https://www.cambridgevets.co.nz/Farm+Animal+Services/Farm+Animal+Information/sheep/feedingpetlambs.html>

Training your lamb:

As lambs are assessed on their bond with the child, leading, coming to call, and presentation, it is important that the feeding is not left to the parents! If the lamb associates "its" child with milk and games, it will happily come when called and walked on a lead. Get them used to a collar and lead, and feed should be used as a reward after walking or coming to call. It should be a fun game for both parties!

Getting ready for Ag Day:

Get used to the idea that your perfect lamb will play up on the day! Acclimatize it to lots of people and other animals. Remember to have the collar and lead clean. Bring a bucket and brush to clean the feet, and a clean cloth (to wipe the eyes, nose and ears – do NOT wash the wool), feed and a water bucket.

Health tips:

Diarrhoea: often scours are just nutritional. You can remove them from milk for a day and replace it with electrolytes, then gradually back onto milk. You may need to increase the number of feeds to replace lost fluid. Alternatively you could try increasing the milk powder concentration by 25% with the same volume feed. If the lamb is obviously ill it may need further treatment – please contact us.

Joint ill: if the lamb looks lame, and is slow or holding a limb up, check the joints. If they are hot and swollen, antibiotics are required. It is important to address this promptly.

Ringling: tails are generally docked with a rubber ring to

reduce the risk of fly strike in the summer. It should be done after maternal bonding and before 6 weeks of age; often about 1 week old. The ring needs to be applied near the top, leaving just enough to cover the bum/vulva. Ram lambs may be castrated with a rubber ring at the same time. Make sure both testes are included but not the teats. Lambs often roll around afterwards!

Vaccinating: Lambs need to be vaccinated against the clostridial diseases such as tetanus and blackleg and pulpy kidney. These bacterial spores are common in the environment and can gain access via any break in the skin or mucosa and can cause sudden death. Two injections of 5in1 are required a month apart; the first is often done at ringing. However, if the ewe was not vaccinated pre-lambing, the lamb will not have any protection from her colostrum and so should be given LambVax early in life before the 5in1 injections.

Kid Goats

The main difference with kids is that they may need dehorning (if so, best done at 4 – 7 days), they don't need docking, their coat can be washed, and they need to be trained for leading around an obstacle course!



Golf Day 2018

A big thank you to all of our clients who joined us for a day of golf and social shenanigans last month. The weather was much kinder than last year, and we finished up with food and prizes in the clubhouse. Congratulations to the winner of the Alan Bremner Memorial Trophy:
Brian Robinson



Spring Seminar

We will be holding our annual Spring Seminar on **Thursday 5th July**. This is an ideal seminar to up-skill new staff or a great refresher for old hands! It is free for Vet Club Members, but numbers are restricted, so please phone the clinic to book a space.

Topics we will cover include:

- Calving
- Metabolics
- Calf Rearing and Health
- Mastitis



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