



MOOZNEWS

Mycoplasma bovis Update



Mat O'Sullivan
BVSc

The big news this month is that after completion of the national M. bovis surveillance, MPI have determined that the best course of action is the slaughter of up to 22,000 cattle on the remaining 22 infected properties. It is probable there will be more infected properties confirmed in the future.

This slaughter will be co-ordinated by MPI in conjunction with the affected farmers.

MPI's response director, Geoff Gwynn had the following to say;

"The depopulation of entire herds on all 28 Infected Properties (IPs) in New Zealand is a critical measure to control the spread of the disease. This cull will give those farmers back some certainty and control over the future of their farms, their animals and their livelihoods"

"We are able to take this decision now because we are confident Mycoplasma bovis is not well established in New Zealand

"We all want to eradicate Mycoplasma bovis – but it has to be technically possible, practically achievable and affordable for everyone. Our focus is on the resilience of our dairy and beef industries which are such significant

contributors to our economy, and on farmer well-being and the welfare of animals.

"Whatever option is taken, we will need to see some big changes in on-farm biosecurity and NAIT compliance. There remains a big job to do around this disease, and there is no quick exit from this situation.

As we near the month of June, planning needs to take place to limit the exposure or your herd and other herds to your own. The main route for spread of M bovis is direct cow to cow contact. Carefully consider the method in which you will move cows this winter and how you will limit contact with other cows when they are away. Contact your Prime vet to discuss a biosecurity plan for your herd.

Commercial Mycoplasma bovis Blood Testing

Some time in the month of April we have been assured that the M. bovis ELISA blood test will become commercially available.

MPI are currently writing guidelines for commercial labs and vets on the use of this ELISA test, the sample size requirement and how results should be interpreted.

Any suspect indication of M. bovis found using the ELISA antibody test will require the notification of MPI who may follow up with further testing. Farmers need to be aware that antibody test results could result in a herd being put under Movement Control, until or unless cleared.

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SITUATION VACANT

Veterinary Centre Oamaru and
Veterinary Centre Waimate.

Position: Part of Teatsealing team.

Duration: late April to early July.

Experience: stockmanship an advantage.

Contact: Neil 03-4345666 for more information.

YOU'RE INVITED

Veterinary Centre invites you to ... "THE FUTURE OF DRY COW THERAPY ... planning for change"

How to use herd testing data, to identify infected and non-infected cows for selective Dry Cow Antibiotic Therapy (DCAT) and Internal Teatsealants (ITS), along with best practice administration.

WHEN: Thursday 3rd May 2018

WHERE: Papakaio Community Centre 10.30am
Waimate Pavillion 2pm

SPEAKERS: Kirsten Baxter (Zoetis), Andrea Dixon & Sharon Dunne (LIC), and the Veterinary Centre's Mat O'Sullivan & Hamish Newton (Papakaio) and Ryan Luckman (Waimate)

RSVP: kirsty@vetll.co.nz by Friday 27th April 2018



Well Done Luke!

We congratulate our own Luke Smyth who completed the inaugural, 301km Alps to Ocean ultra marathon. Not to be satisfied with just getting over the finish line Luke came in 9th overall and 4th in his category from 122 starters. Considering this was Luke's first effort at an ultra this is an even more outstanding achievement. That said there is no rest for the wicked and Luke was back at work the following week.



OAD Milking and 16 Hour Milking in Late Lactation

This late lactation strategy is commonly adopted to increase cows condition before dry off. Cows which are producing less than:

- 1.2kg MS/day will have minimal reduction in milk yield (<10%) when placed on OAD.
- 1.6kg MS/day will have little reduction in yield on a 16 hour milking routine.

Because milk production at this stage of lactation is not necessarily compromised, condition gain will only occur if cows continue to be fed like a twice a day milker. At most a cow on OAD will require about 1.5kg DM/day less than a TAD cow to remain in the same energy state.

Possibly the biggest advantage from extending milking periods is lameness reduction. Cows are very prone to going lame in late lactation due to extended periods of walking on wet tracks. Cows which are lame, spend more time sitting and therefore do not eat as much..... so they lose weight.

Expect a spike in BMSCC for the first 48 hours after going on OAD, but be cautious about using this strategy if your BMSCC is already over 200,000.

Timing of Drenching

Cows drenched 3-6 weeks before drying off, can gain additional body condition and will have better milk production. Use quality, nil milk withhold pour-ons such as Eprinex, Genesis and Cydectin.



**WHOLE HERD
PREGNANCY
RETEST
\$1.57 plus GST**



Lauren Strange
BVSc

Grow Smart
HEIFER MONITORING PROGRAMME



When offering enough feed doesn't cut it....

We have just completed the first weights on a mob of poor-doing calves that have been enrolled in the GrowSmart programme by their owner. The calves, weighed on the 21st March, are currently 41kg behind target, and therefore will need a very aggressive intervention plan if they are to reach industry targets by mating.

The traditional model for "ill-thrift" investigations looks at four main areas that are likely to be involved when animals aren't reaching targets. In order of importance these are;

1. Nutrition (or lack of)
2. Parasitism
3. Trace Element (deficiencies)
4. Other Disease

These investigations therefore require a holistic approach to the farm and situation. "Feeding More" isn't always going to solve the problem if the underlying issue is one of parasitism, trace elements, or other disease.

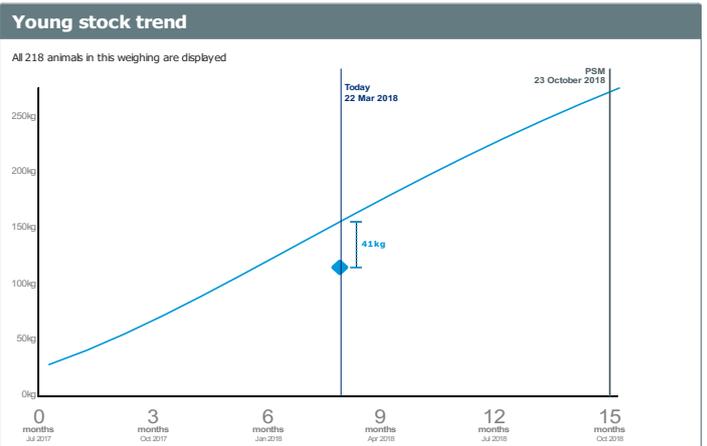
On this farm a combination of factors appear to be involved, however one of the main issues appears to be a very high pasture larval contamination. The typical picture of larval contamination is a farm that has;

- had a lot of young stock grazing the paddock over a few years
- the calves usually look "wormy" even soon after a drench
- often eating low on the grass sward

Unless addressed, a high pasture larval level will work to decrease growth rates by decreasing voluntary feed intakes (markedly!).

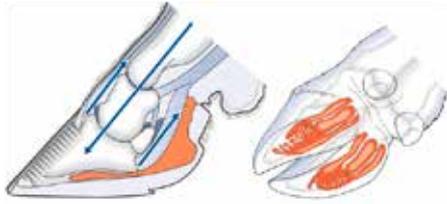
To overcome this, we have opted to use ALPHEUS anti-parasitic capsules in the calves. These capsules have been on the market for a couple of years now and have shown great promise on these farms with high challenge situations. The capsules, which have a levamisole and oxfendazole primer and abamectin payload, last 125 days, and are suitable for cattle up to 300kg. They should kill all incoming larvae on a daily basis, and therefore negate the effects of contaminated pasture. Alpheus capsules are now competitively priced.

Watch this space – we will reweigh this mob in another month and see what difference the capsules have had on our ability to properly feed these calves. If your calves appear to be behind get in touch with one of our vets ASAP to discuss the holistic GrowSmart package.





Lameness Euan Tait BVMS Blocks, Slips, and Walkease – the key to breaking the lameness cycle



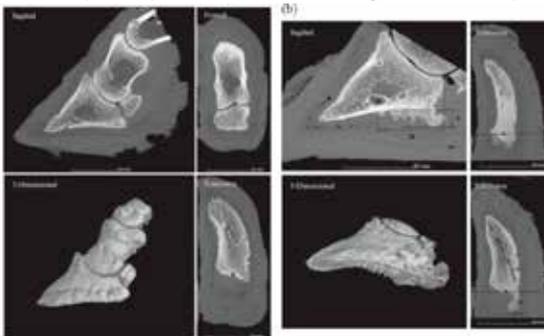
Recent research looking at chronic changes in the foot following lameness has highlighted that the use of blocks/slips early in lameness is pivotal to a successful long term outcome (see the research below). Cowslips offer the greatest durability of the blocks we stock, however with the difficulty of applying them potentially putting some clients off, we have seen an increased uptake in the number of Walkease blocks being sold. Unfortunately these foam pads have a very limited lifespan. To address this, we have just started stocking an alternative product, Kruise Wooden Blocks, which offer a similar ease of application to the Walkease, but with a much greater durability.

Why does lifting the affected claw off the ground matter?

The digital cushion is an important structure of a cow's foot acting as a shock absorber and bearing the cow's weight with every step she takes. It is comprised of fibrous connective tissue and fat pads. It is located at the heel of the foot and extends towards the toe. It is shown in the above image as the orange section. Its main role is to protect the bone within the hoof – the distal phalanx. Recent studies have proven that lameness affecting the claw horn also leads to changes within the foot, specifically the digital cushion and the distal phalanx.

During these types of lameness, the following steps happen –

1. There is local inflammation within the foot and on the sole
2. Fat from the digital cushion is resorbed and utilized elsewhere in the body
3. As a result of this, the digital cushion becomes thinner and is replaced with scar tissue and its cushioning effect decreases
4. Because the digital cushion no longer cushions and therefore can't spread the weight of the cow there are focal spots of increased pressure. The response is new bony growths/ projections forming within the hoof.
5. A vicious cycle of cattle lameness subsequently begins as the bony growths on the pedal bone then predispose the cow to being much more prone to lameness!



The images above show the extent of the bony changes that can occur within the foot. The images on the left show the normal shape of the bones of the foot, and the ones on the right show the increase in bone production at sites A,B,C and D. It is easy to see how these changes increase the pressure placed on the sole of a cow's foot and can lead to further lameness. Essentially it is like walking on a pile of thumbtacks.

The main role of the blocks is to help prevent these structural changes within the foot during an active case of claw horn disruption lameness. If we can lift the claw off the ground and reduce the pressure on the pedal zone until the digital cushion reforms, then it will reduce the risk of chronic changes. The blocks also provide instant relief to the cow and improves her welfare. Along with the blocks, a non-steroidal anti-inflammatory drug (NSAID) such as Metacam, should be administered. This provides pain relief and also decreases the local inflammation within the foot, again reducing the chance of permanent changes. The use of blocks and NSAIDs has been proven to get the highest cure rate and also the largest decrease in the chance of further lameness. As with any type of lameness, prompt detection and effective treatment are paramount in achieving a cure and with these lesions, helping prevent lameness recurring.



Nick's Corner

Nick Reed BSc (Hons)

ALERT! High Nitrate Levels

Nitrate poisoning can threaten stock in any season if conditions are 'right' but the risk is greatest when rain or moist, overcast days follow a drought or hot weather – This makes autumn a time to be on alert. We have already had brassica samples returning toxic levels that could prove fatal if fed to stock.

High Nitrates bind haemoglobin, which normally transports oxygen around the body, and therefore signs of Nitrate toxicity are consistent with oxygen deprivation; "Drunken" staggering, Heavy breathing, abortion and acute deaths. The blood of animals killed by Nitrate poisoning is typically dark brown.

- For plant Nitrate levels (NO₃-N, Nitrate Nitrogen) less than 10 mg/L is safe to feed.
- For Nitrate levels between 25-100mg/L, pregnant animals should be restricted to 40-50% of their total DM intake.
- For Nitrate levels between 100-250mg/L, stock should be restricted to 25-30% of their total DM intake. Do not feed to pregnant animals.
- Nitrate levels above 250 mg/L are potentially toxic and should be retested 2-3 days later if levels are still high, then discuss options with your Vet.

Plants typically take up nitrogen from the soil as nitrate and transform most of it into ammonium and amino acids during photosynthesis – the process by which plants convert sunlight to energy for growth. Lack of soil moisture stops nitrate uptake and it builds up in the soil. When rain does arrive, roots suck up the available nitrate rapidly. If cloudy days follow or if leaves are damaged by hail or frost, this reduces the plant's ability to photosynthesise and unused nitrate accumulates in the plant. Once raised, it can take several weeks for levels to return to normal. Different pasture or forage types also have varying nitrate levels. Brassicas are known for high nitrate levels with rape typically the highest risk. Vigorous ryegrass (especially annuals) and cereal green-feeds can also cause problems. Nitrate poisoning progresses fast. Watch for risk conditions and apply appropriate management strategies to minimise losses.



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Veterinary Centre – By the Big Blue Cross

Uddernews

Hamish Newton
BVSc PhD



Making Decisions

In early March, Dr Scott McDougal (from Cognosco), presented in Oamaru, the findings from the national study on the use of Selective DCT – i.e. antibiotic DCT for infected cows and internal teat-sealant (ITS) for uninfected cows. The study was born from global pressure to reduce antibiotic use in agriculture to maintain its use and potency in human medicine. As about 85% of the antibiotics used in the dairy industry are used for the treatment or prevention of mastitis, DCAT (dry cow antibiotic therapy) has been singled out as an area where reductions can be made.

Scott presented the findings from the trial (our practice contributed 6 farms), which set out to find ways to define the infection status of cows and thereby reduce DCAT. Some of the main points were;

- Herd test data is still the best tool we have to identify the infected cows at dry off
- A singular test in late season was as good using the highest herd test result in the season to classify cows into infected and non-infected groups. The optimal test time is 40-80 days before dry-off.
- To make good culling decisions multiple tests are still required.
- In the absence of herd test data, RMT testing could still be used to reduce the amount of DCAT used (but not as sensitive as herd testing)
- Using a cut point of 200,000 SC/ml to differentiate infected from uninfected (DCAT v ITS) proved to be reliable.

To assist in making the best decisions about your individual cows and herd we

request that clinical mastitis data gets entered into MINDA. Please ensure this is recorded as a clinical mastitis case and not as a mastitis treatment. Cows with multiple cases or mastitis and/or chronically high ISCC are less likely to cure with DCT and will proliferate the problem next season. Using this data can aid in the production of a culling list from Infovet.

Drop in BMSCC

Our practices' average BMSCC is 153,000 this season which is down 10,000 on last season and the season before. This result is also reflected in our sales of lactational mastitis treatments which are also down. This highlights the great progress we have been made in using targeted DCAT, targeted culling and the increase in ITS use in heifers. We look forward to creating a plan for next season at your Milk Quality Consult soon.

Body Condition Score Targets – BCS 5.0 at calving - the ultimate goal!

Body condition score 5.0 for a mature cow and 5.5 for an R2 or R3 at point of calving is an important target to reach. Achieving this target will dictate a significant amount of production, reproduction and animal health potential in that season.

Ideally cows should be at BCS 4.5 at dry off if they are to achieve a 5.0 at calving. We recommend that early calving cows at BCS 3.5 or less, be dried off by the start of April and BCS 4.0 cows be dried off at the start of May. It is a productive exercise to individually score cows in the month of May. Cows can then be stratified into wintering groups for customised feeding to achieve target. Please contact your Prime vet if you wish to utilise this service.



Andrew Muir
BVSc BSc

Johne's News



With late season herd testing coming up over the next few months it is the ideal time to consider Johne's testing. If you have had clinical cases of Johne's during the season I would suggest testing your herd. Clients who have culled their high positive and positive Johne's cows from the test over previous seasons have seen large decreases in the number of clinical Johne's cows they have had to cull this season. To discuss further contact your Prime Vet.

Heifer Teat Sealing

We are starting this service on the 23rd of April. Please book in our trailers early to assist in our planning. Teatsealing needs to be completed by 4 weeks before heifer PSC (but our team loves doing it in warmer drier weather!)

Milk quality reviews

Please book in a date with your prime vet to review your season, plan a DCT strategy and instigate preventative measures for next season. If this is done immediately after the final herd test, cull cows lists and selective groups for DCT can be created. Please enter all your clinical mastitis events.

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