



Veterinary Centre MoozNews

Mating Commentary 2023

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

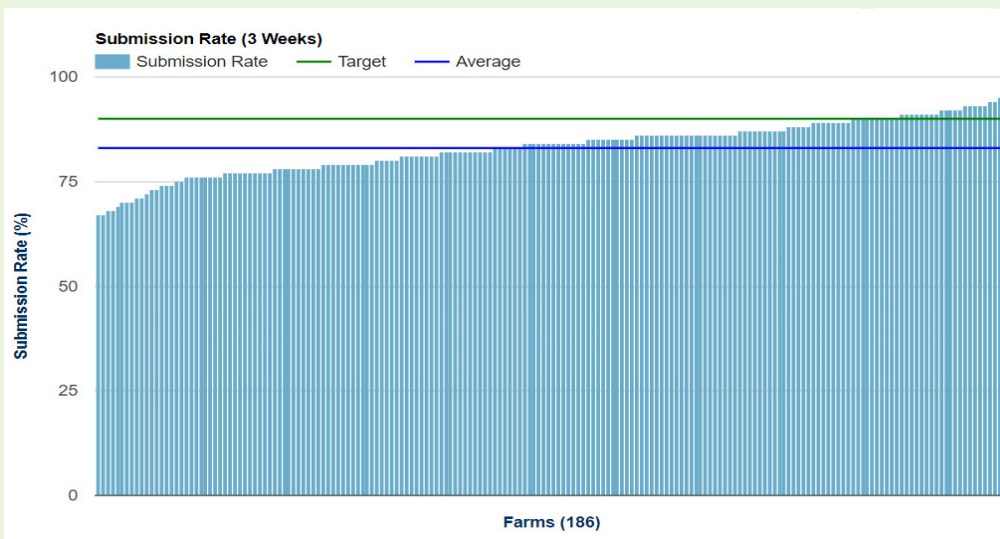


3 Week Submission Rates

- The two main drivers of six-week-in-calf rate (6WICR) are the conception rate and submission rate. To achieve the target 6WICR of 78% a herd needs to achieve a 60% conception rate and a 90% submission rate in both the 1st and 2nd round of mating.
- The early indications (from collar farms) this season suggested that pre-mate cycling was well ahead of last year. The number of early treated non-cyclers was also reduced compared to last season. This however did not come to fruition with measured 3 week submission rates.
- The bar graph below shows the 3-week submission rates from 186 herds in our practice that had completed 3 weeks mating at the time of analysis. The blue line shows the

practice average at 83% (with the median at 84%). Compared to last year both the average and the median value has improved by 1%.

- The important area to note though is how few farms are achieving the industry target 3-week SR (green line) – this year, this represented just 18% of farms examined. Good heat detection, high natural cycling rates and a preparedness to act early on non-cycling cows remain key to reaching this target. Too many farmers are not prepared to act early when pre-mate cycling rates preempt a low 3-week SR. A herd with a 80% submission rate at the very best might get to a 72% 6 week ICR
- **A missed heat in the second round cost increases to approximately \$463 due to higher empty rates (25%) and no heifer replacements!!**



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2023 Milk Quality Awards

This season we will be seeking the lowest average Bulk Milk Somatic Cell Count, up to Monday 4th of December 2023. (For farmers signed onto Infovet, and supplying Fonterra and Oceania, there is automatic access to this information.) Winners of these awards for the lowest average BMSCC will be announced in the January Mooznews



Herds Coming Off Peak Lactation

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru



Most herds in this district hit peak lactation figures in early November. Ideally the lactation peak is flat lined for as long as possible. A >7% drop in production/month is considered excessive and likely to indicate issues with a net reduction in ME intakes of cows.

A significant drop in production in the range of the pre-mate and mating period will often occur in tandem with a drop in cow condition. This is not an ideal situation for optimising embryo quality and pregnancy maintenance.

So, what are the most common reasons for herds coming off peak lactation?

Dry Matter Percentage

- The excessive intracellular water (internal) as opposed to rain on the surface of grass (external) has been shown to restrict voluntary intake. Studies have shown a reduction of dry matter intake of 0.2-0.3kg DM for each percentage drop in dry matter below 15-18%. After a period of wet weather and good growing conditions this might see voluntary intakes drop from 18kgDM/day to 15kgDM/day if the dry matter percentage dropped from e.g. 18% to 12%.
- Mowing in front of cows several hours before grazing to get wilt should increase intakes if dry matter % is low but of good quality.

Quality of Pasture

- Grazing pastures more mature than the 3-4 leaf stage will show a marked drop in ME. Grazing to low residuals where previously rounds have been lax means a higher percentage of mature/dead DM must be eaten – voluntary intakes will also reduce.
- If pasture cover is greater than 3,400kgDM you are best to top behind cows rather than in front.

Quantity Offered

- Low pre-entry covers, restricted areas and simultaneous removal of concentrate supplements.
- Continue to calculate pre-graze covers and adjust break size or supplement as appropriate.

NDF Percentage

- Cows cannot eat more than 1.2-1.5% of their body weight in NDF (this would be 7.5kg for a 500kg cow). If targeting cows to eat ≥ 18 kgDM, the maximum NDF content would be about 40% of the diet.
- Ensure that covers do not exceed 3,400kgDM/ha at this time of year, and don't force them to eat low quality residual.

Weed Takeover

- Californian thistles and dock can become a significant problem on some farms at this time of the year. They effectively reduce the grazing area.

Heat Stress and Water Restriction

- Temperature Humidity Index, air movement and solar radiation in combination will have a combined effect on the cow being able to maintain a normal body temperature. This in turn will affect grazing behaviour and grass harvest. Having shade and available drinking water (exit races) is pertinent to regulating body temp. Bringing cows together in close proximity in the yards/shed over the hottest hours in summer increases this risk.
- Watch for cows panting. Aim to provide the biggest feed allocation in the coolest part of the day in hot weather and adjust milking times.

Concentrate Removal

- Often in-shed concentrates are removed as budget for purchases is reached or there is an anticipated excess in grass. The removal may coincide with any of the above to reduce total ME intake at what may be a crucial time.

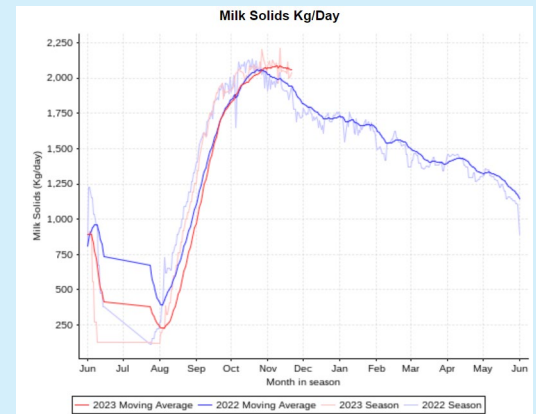
Lameness

- If a significant percentage of the herd does become lame (and this could be slight), there is an associated increase in lying time as cows try to rest their feet.
- Monitor walking times of cows. If this is slow due to lameness adjust management.

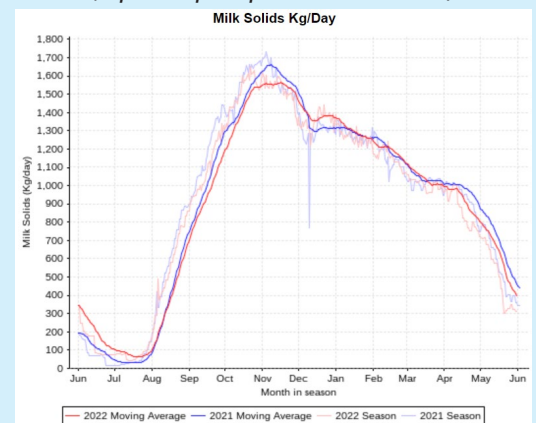
Milking Interval

- It is generally considered that dropping from TAD to 16hrs while cows are producing more than 1.6kgMS/day will result in a milk drop.

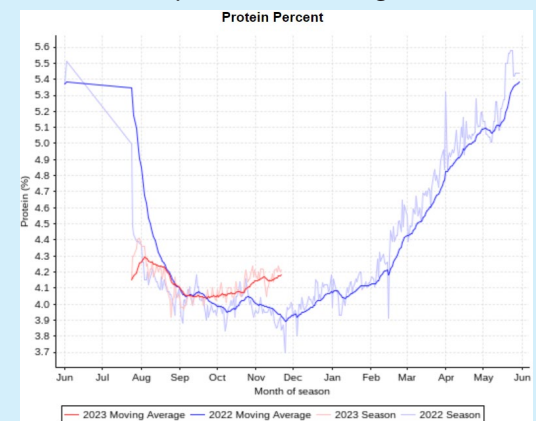
Herd A (ideal – peak is holding) ↓



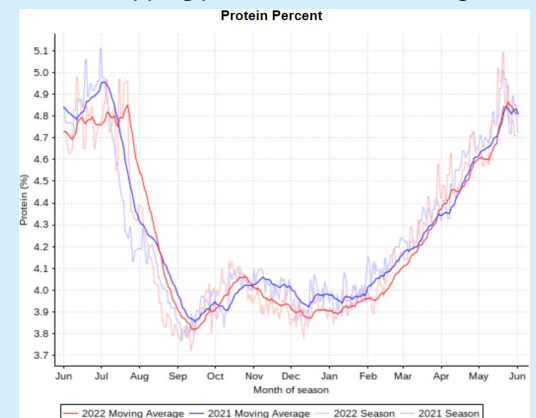
Herd B (rapid drop off peak - >7% month) ↓



Herd A (ideal – protein is increasing) ↓



Herd B (dropping protein at start of mating) ↓



Gut Surgery - on a Beef Cow

Jess McKenzie BVSc(Dist.) – VETERINARY CENTRE Waimate

A few weeks ago I was called out to see a 3 year old 'sick beef cow'. The farmer had noticed her a bit off the day before, then found her sitting down, sunken eyed, not eating and bloated the following day. She was able to stand and walk however she was severely dehydrated and had a very uncomfortable abdomen.

There were no other findings of note except on rectal exam she had a completely empty rectum – just some sticky blood and mucous. This finding is almost always diagnostic of some sort of gut disaster/obstruction.

Based on the findings a small intestinal obstruction was suspected either due to a twist, a foreign body, or it can also occur when a piece of intestine invaginates on itself and blocks. All of these can be corrected with a relatively simple surgery if the cow is still standing and is a suitable candidate.

I knew the farmer well and she was too good to give up on, so I suggested we open her up, give it a go and see what we find. We tied her with a halter to a rail in the yards and got her prepped for surgery. I had called for another vet by this stage (to have an extra pair of hands) – I was lucky enough to have my Scottish side-kick Ewan turn up who was also good for a bit of banter, positivity and moral support!

We made a small hole in the right side of her abdomen just big enough to get your arm in. A bit of fishing around and we found a blockage in her small intestine which we were able to exteriorise. We performed an enterotomy (cut a small hole in the intestine itself to remove the blockage) and found a massive blood clot which was completely occluding. We proceeded to milk out a good metre of blood clot. Fairly confident that we'd got it all out and the integrity of the intestine was ok, we carefully stitched the intestine closed again. Washed it all off with sterile saline and closed her up.

She was given a course of penicillin for 1 week and pain relief was administered post-surgery. She made an excellent recovery – I got photo updates from the farmer and we kept in touch. The next day she was eating again, and she went on to make a full recovery.

We suspect that this cow had 'Jejunal Haemorrhage Syndrome' – a multifactorial disease which causes bleeding into the small intestine which most often presents as sudden death. This girl was very lucky to have an attentive owner who picked up on her signs nice and early.

Most gut surgeries in cows are reasonably straightforward and should not be feared! Signs to watch out for are cows that are suddenly off their milk, depressed, dehydrated and appear bloated in the abdomen (usually on both sides).



Due to the stoical nature of cows many will not be suitable candidates for gut surgery by the time we see them simply because the condition was not picked up early enough. If she is down and cannot stand, surgery is no longer an option. However, if she is still standing and is a good candidate remember that cows happen to be amazingly resilient creatures who will often respond favourably to surgical treatment.

Prompt surgery will improve the result.

AND REMEMBER – she will die if you do nothing!

This cow is the absolute reason why I love my job – no better feeling in the world than knowing that you've helped.



The staff at all our
Veterinary Centre clinics
would like to thank you
for your support
during 2023 and wish you a
happy and safe Christmas
and a prosperous New Year

Thank You

Milk Urea Nitrogen Project Update

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru



This season we have partnered with Dr Jim Gibbs and his honours student/s (Karla Harris) at Lincoln University to try to understand the drivers of the low Milk Urea Nitrogen (MUN) values that we are now seeing in early lactation. It is generally considered that where MUN values are dropping below 15-19%, there is likely a production limiting amount of metabolisable protein in the diet. In a bigger picture it might also be indicating that soil nitrogen levels are not high enough for optimal regrowth rates.

Twelve farms in our practice that had low MUN values, had pre-graze pasture samples collected towards the end of the first round. Supplements fed on farm were also collected. The farms were re-sampled again at the end of the second round or start of third round.

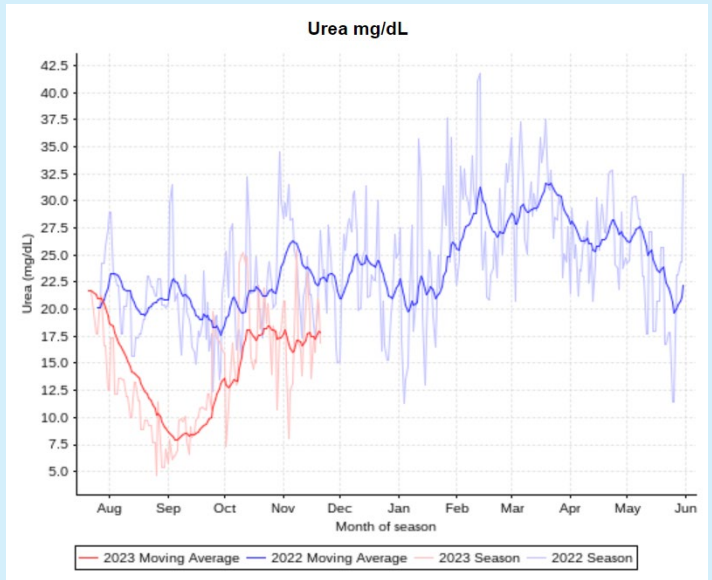
Jim and Karla's key findings from the grass samples were that they had very high NDF values – 49-50% (40-45% would be typical for winter grown grass). As cows can not eat more than 1.2% of their body weight in eNDF, the total actual intakes would likely to be ~14.5kgDM, which is significantly less than what is anticipated by most farmers.

The crude proteins of these pastures were sitting at just 13-14%, which is below an early lactating cow requirement.

The second grass samples collected five weeks later had crude protein values in many instances greater than 30%.

A current hypothesis is that under the 190N cap farms are applying

less N in later lactation resulting in a reduction in soil N in the winter/spring, this results in slower winter growth resulting in tougher grass, lower crude protein levels and probably slower post-grazing growth rates in the early spring.



MERRY
Christmas

Thank you for your custom and for choosing us as your veterinary provider. From our Veterinarians, our clinic managers, our Territory Managers on the road and all of the Veterinary Centre team, it is our pleasure to be working with you and we wish you and your families a very safe and happy Christmas.

Tamsine, Natalya, Brooklyn, Janene



Oamaru Team



Gwyn, Chrissy

Kurow Team

Back Row: Shannon, Abbey, Brenna, Becs, Bree, Dara
Front Row: Annie, Lara, Chelsea



Timaru Team

Glenavy

Myles, Johanna, Maddison, Sarah Little, Sarah Jones



Waimate Team



Summer, Gwyn

Omarama Team



Nicky, Carla

Palmerston Team



Jo, Jenny, Emma

Helen

Ranfurly Team



Hamish Newton BVSc, PhD
Oamaru Veterinary Centre

UdderNEWS



Can you use your herd test data to get the 3c co-operative difference payment?

The average BMSCC for the season to date for our clients this season is averaging 157,000, last year at the same time it was 164,000. What is great to see though is the reduction in number of farms averaging over 200,000 this season compared to last season. I think this will result in more pickups with a count less than 150,000 so there are more of the 3c premiums paid out via the Fonterra co-operative difference scheme. If your BMSCC is close to 150,000 and not getting under regularly, use your latest herd test data to see if here are two or three cows that if removed from supply could result in all the milk from the rest of the herd getting the 3-cent premium. A couple of cows with a SCC in the millions will drag the BMSCC "disproportionately" up (most of your herd will have a SCC less than the BMSCC and cow can't have a SCC less than zero), so by not selling the milk from a few high ISCC cows you can add value to the rest of the herds milk, if your BMSCC is close the 150,000 BMSCC threshold. You can do the sums on volume of milk discarded and predicted reduction in BMSCC, or far more practically just withhold the worst cows for a pickup – see how much milk you loose and if the BMSCC drops to below 150,000 to get the 3 cents on all the milk in the vat.

Tb testing and Johne's disease screening

Speaking of herd testing if you are going to use an upcoming herd test for Johne's disease screening, please let us know if you have had a herd

Tb test in the 43 days prior to herd testing, as the Tb test has resulted in false positive results (mainly "suspect results"). Along the same of thought the Johne's blood test may be impacted by Tb testing for 71 days after a Tb test so mention when you last Tb tested if getting cows blood tested for Johne's disease as we will elect to use a test other than the usual ELISA test.

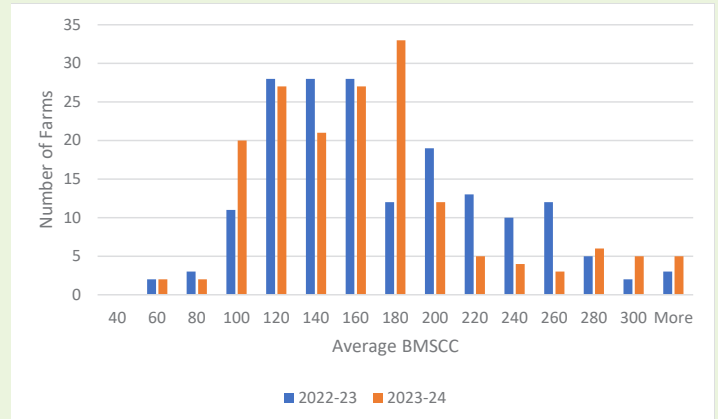


Figure 1 Average BMSCC for last two seasons to mid November

Fonterra on Farm Efficiency & Emissions



Andrew Muir BVSc BSc (Hons)
VETERINARY CENTRE Oamaru

Many of you will be getting your heads around Fonterra's recent emission target of a 30% reduction in on farm emissions intensity by 2030 compared to 2018. This target has been put in place for several reasons.

1. Fonterra's customers are requiring this. They all have green house gas targets and require it from their suppliers. To be able to access these high value markets targets must be set and met.
2. Finance: Sources of capital want to see a reduction in emissions over time.
3. Regulatory; Fonterra must meet disclosure requirements about their greenhouse gases.

While NZ dairy farmers start in a good position with them having the lowest baseline emissions intensity, the international competition is moving quickly. If Fonterra did nothing the overseas competition would overtake them. This would mean Fonterra's high value customers would potentially move to other suppliers.

The 30% reduction is a collective target across the whole Co-op. To reach this there are four areas that will be addressed, with individual farmers probably most interested in the adoption of best farming practices. Think of it as an opportunity to use all the metrics you are being provided with, to improve efficiency on farm by addressing areas such as:

- Animal health: e.g. mastitis, Johne's or lameness.
- Improving reproductive performance
- Genetics
- Nutrition
- Minimising environmental stress.

As the season progresses, we can have discussions about what this all means and talk through your Farm Insights Report.

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Double Combination

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ADVANCE

Eprinomectin's broad spectrum killing power and high safety profile for calves of all weights*!

(*over 60kg)

Actives:

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- Selenium
- Cobalt

Dose Rate

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Turbo Advance ACVM A011714

5L \$459.00

15L \$1,085.00

Including GST



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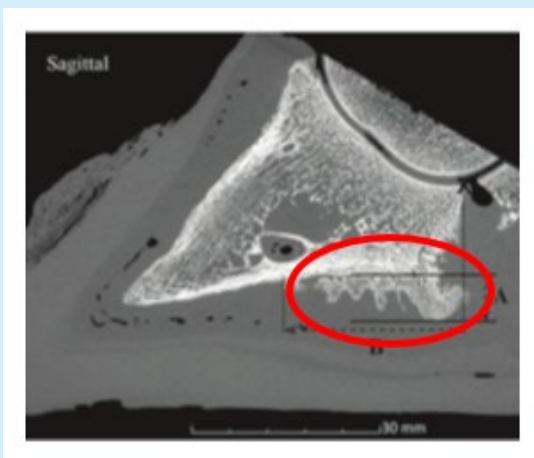
Lame Cows – How do we get a fast cure??

Ryan Luckman BVSc (Dist) MANZCVS (Epidemiology) - VETERINARY CENTRE Waimate



While we know that things like pressure in yards, poor laneways, and congestion points will increase the risk of lameness, the **single biggest predictor of lameness is a previous case of lameness.** In fact, if a heifer gets lame in her first lactation she is 3X more likely to get lame in her second lactation!!!

We now know that, as part of the disease process with a case of lameness, a cow is likely to lose the fat pad that sits on the bottom of the foot. This fat pad is like a shock absorber for the foot, spreading the weight of the 500kg animal evenly across the pedal bone. Once this shock absorber is gone we then get secondary bony changes (see the x-ray below) creating pin-like growths. It doesn't take any stretch of the imagination to realise that a cow walking on these bony growths is much more likely to get lame than a cow floating along on a fat pad shock absorber!



For farmers wanting to identify these cows earlier we are now able to offer herd locomotion scoring via our trained technicians. Our team has been experimenting, and on most farms (with strategic positioning and a good set of binoculars) we are able to identify the individual cow tags of the lame cows as they exit the milking shed.

With this list a farmer can then draft these cows ASAP for treatment (either by farm staff, our Vet team, or a foot trimmer).

So how do we break this cycle and get fast cures?

The keys are:

1. **Identify EARLY** (i.e find them BEFORE the bony changes take place)
2. **Protect the fat pad** (BLOCK + 3x Days of NSAIDS)
 - a. BLOCK: The block elevates the foot off the ground until the pad recovers. Blocks should be put on almost ALL cases of lameness.
 - b. NSAID: Anti-inflammatories for 3x days offer both pain relief (lameness is a VERY painful condition), as well as reducing inflammation which helps protect the fat pad.
3. **Recovery** (i.e reduce walking until foot isn't lame)

Using this concept, a recent trial in the Waikato following 241 lame cows showed that if the above strategies are followed they could return cows to being "non-lame" within 7 days, and completely sound within 18. These are the fastest cure rates ever reported in a peer-reviewed study.

Finding them early... Locomotion Scoring

One of the biggest barriers to following the process above is identifying cows EARLY enough to be able to make this difference. In the above trial cows were identified at a locomotion score of 2 (see DairyNZ lameness scoring for a better description of the categories). What we see (and multiple studies report) is that farmers will typically only identify and treat cows when they reach a lameness score of 3 (considered very lame).

We can also examine these cows to look at patterns of lameness to help with some prevention strategies.

Get in touch if you'd like to discuss getting some locomotion scoring done on your farm. In a trial we were involved with last season, farms in our region had between 1-17% of cows lame at the locomotion visit, with the average being around 4%. The visits are charged at \$100 per hour, and the visit will only continue if tag numbers can be collected in your set-up.

Pink Eye Update

Whilst Pinkeye can be tricky to see, it can certainly become an eyesore if left to brew away! Pink eye is caused by bacteria (*Moraxella bovis*). It becomes a pesky problem heading into the summer months as wind, heat, dust, flies and long grass can weaken the natural defences of the eye and cause an infection.

Pink eye is incredibly contagious and can rapidly move through a mob, so it pays to get on top of it quickly. Signs of pink eye begin with weepy, clear discharge and squinting which then can progress to discoloured/ white eyes which can develop deep ulcers. If left untreated, it is very painful and uncomfortable.

It can lead to nasty ulcers, blindness and reduced growth rates, as well as it being a significant welfare issue. Lesions quickly worsen for an animal and eye damage can be irreversible (partial or complete blindness).

Treatment of pink eye is either with Orbenin eye ointment OR injectable tetracyclines (Engemycin or Bivatorp). If you are having particularly bad problems this year, or it is becoming an annual problem, then come talk to us to see what management factors may be of help. A single dose of Piliguard vaccine given 3-6 weeks before the risk period will significantly reduce the risk of an outbreak.



Reproduction Matters

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru



Booking in a Date for Pregnancy Testing

Everyone is now fully aware of the tremendous benefits of doing early aged pregnancy testing - these include;

- Providing information for strategic dry off dates.
- Aiding in early culling decisions for destocking in the Autumn.
- Formation of wintering groups for tailored feeding.
- Feed budgeting for the winter period and early lactation.
- Efficiency in time and transport logistics of cows from run-off back to milking platform.
- Detailed reproductive analysis to help guide where continued future improvements may be made.
- Bench marking against the rest of the district.
- Improving the saleability of a herd.
- Identification of cows which have received multiple inseminations but conceived to the first mating.
- Ranking cows for culling.
- Accurately identifying cows which conceived in the early bull mating period.

- Provision of detailed supportive material for possible induction dispensation requests.

To provide this information accurately cows should be pregnancy tested 12-15 weeks after the PSM date. For a herd which started mating on the 23rd of October this would be between the 16th of January and the 10th of February. The accuracy when dating pregnancies beyond 15 weeks starts to diminish. Herds should have had bulls removed for at least 40 days before an empty diagnosis can be confidently made.

For herds which are limiting their mating period to strictly 10 weeks it would be possible to do a singular test at 15-15.5 weeks after the PSM. The reality however is that it would not be possible to get all herds tested in the district within this very tight time frame. We ask therefore that farms stick with the existing program of testing between 12-15 weeks after the PSM. Cows identified as rechecks can then be simply drafted out for retesting 40 plus days after bull removal.

December Preg Testing/Phantom Cows

Every year we get an increasing number of farms that wish to scan non-returning cows in the month of December. The main reason for doing this is two-fold.

- To identify cows which have not returned to service but are found not to be pregnant - known as phantom cows. Once identified these cows can then be treated with a CIDR device. High risk herds are those with high CIDR usage, low BCS or high rates of endometritis.

- For herds doing extended AI (no bulls) - identifying all cows which are already pregnant by mid-December can reduce the workload on heat detection as these can then be all run in one herd.

In both situations eligible cows for testing must be greater than 35 days since the last insemination. It is imperative that tailpaint be maintained, to ensure confidence that cows have not returned within the >35 day period.

Worms & Coccidiosis

Oral Drench to Combat Parasites and Coccidiosis in a single dose for weaned calves.

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- Levamisole
- Diclazuril
- Selenium
- Cobalt

Dose Rate

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Actives:

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Dose Rate

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\$629.00

5L

\$1,299.00

\$1,199.00

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Eclipse Pour-On ACVM A009270



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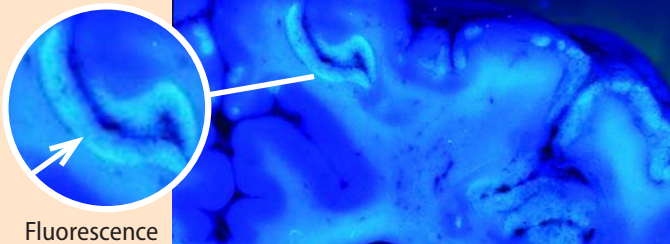


Timely Reminders

- **Regular drenching programme** – including choice of combination drench and drenching interval.
- **Vaccinations** – Covexin 10 booster/Muiltine 5 in 1.
- **Use of selenium and copper** supplementation.
- **REGULAR WEIGHING!!!**
- **Pink eye** – pink eye season is coming up. A single dose of Piliguard 3-6 weeks before the risk period will reduce the risk of an outbreak
- **Polioencephalomalacia (PEM, B1 deficiency)** – We are once again seeing several cases of P.E. (polio encephalomalacia), a nervous disease seen primarily in calves and younger stock. P.E. is caused by a lack of vitamin B1 (not to be confused with a cobalt deficiency, which is associated with a vitamin B12 deficiency). P.E. is thought to be nutritionally induced, when there is a sudden change in diet from stalky, higher DM diet, to a lush, low fibre diet. A high dietary sulphur intake, especially with brassicas, has also been incriminated as a cause of P.E.

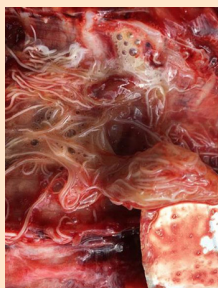
Calves with P.E. appear blind, may walk aimlessly, appear wobbly, have muscle tremors and head press. If calves are treated early in the disease process with a series of vitamin B1 injections, survival rates are good. In an outbreak situation we have had good success, by prophylactically treating the remaining, unaffected calves, in the group with an oral vitamin B1 drench. This has proved a very cost effective preventative measure.

The brain of a calf with PE, fluoresces under a UV light.



Fluorescence

- **Yersinia in calves** – in December we start to see outbreaks of Yersinia in weaned calves. Yersinia bacteria are commonly found in the intestines of most calves. Stress associated with parasites, trace element deficiencies and BVD may result in an overgrowth of this bug in the intestines. Overgrowth results in severe scour. Large percentages of a mob are often affected severely checking growth rates. Mortality rates of 5-10% are not unusual. Isolation of affected animals and treatment with neomycin antibiotic for 3-5 days is an effective treatment/control.
- **Lungworm** – we saw numerous cases of lung worm outbreaks in November. Lungworm typically affects younger stock but we have had environmental conditions (earlier in season) that promoted larval survival on pasture. This season older animals have been affected as well. Lungworm is sensitive to most drenches - contact your Blue Cross Vet for advice.



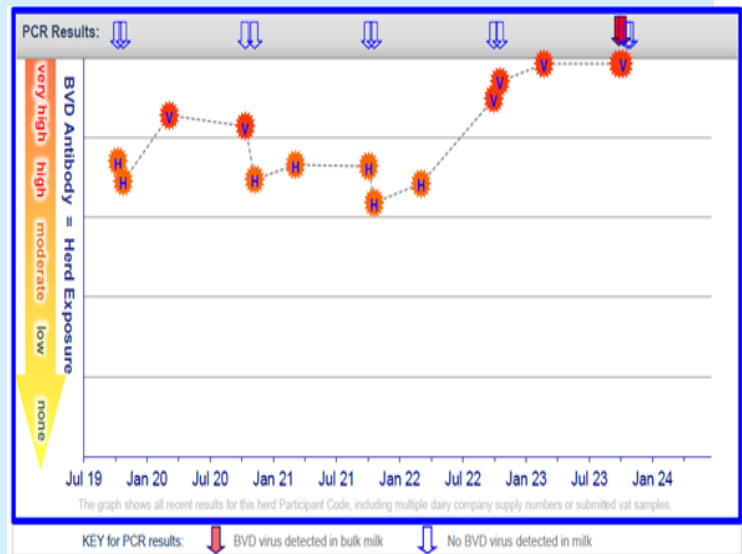
BVD Bulletin



Andrew Muir BVSc BSc (Hons)
VETERINARY CENTRE Oamaru

Bulk milk samples have come in for all farms over the last 6 weeks. There have been 15 farms that have come back with positive results. Of these 10 have eliminated the virus from their herds by finding the PI animal. This leaves 5 farms that still have to eliminate the virus from their milking cows.

Of these 15 farms only 1 of them had virus in their milking cows last season, and it was eliminated then as well. The other 14 farms are all new infections. This is what is often seen, where by new infections often turn up in farms that were previously negative. The following is an example of farm that has been negative for several seasons but turned up positive this season.



The important take home from this is that having a negative bulk milk is really important, but you also need to be checking that replacements coming into the herd are negative. If you haven't done it already, organise to test a sample of your 2022 born heifers to see if there is an indication of exposure to BVD next time they are brought into the yards.

