SEPTEMBER 2023

Veterinary Centre MoozNews

Prioritising your Efforts and Investments in Tight Times

Mat O'Sullivan BVSc – **VETERINARY CENTRE** OAMARU

The forecast payout drops in the last few weeks have had most farmers rechecking budgets and looking where they can reduce costs for the next financial year. Investing in areas that will maintain or grow production without lifting the cost of production ($/kgMS) are key. Grass production with high feed utilisation and Days in Milk remain two of the biggest drivers of profitability.

The average farm in our practice last season spent 4 cents/kgMS on what we would call reactive animal health expenditure (i.e. treatment for mastitis, lameness, milk fever, sick cows etc). Although a modest sum, it is a barometer of the wider impacts that these diseases have on production, cow condition, reproduction and days in milk. The lowest quartile farms in our practice are sitting at 2c/kgMS – this is not a big difference in cost but likely drives some larger changes in profitability.

Prevention has always been better than cure, so it is important to maintain steps in disease limitation as these are often low cost. Think about staff training in the steps to prevent cow lameness, or limitation of the acquisition and spread of mastitis. We are here to help.

Also keep looking forward to next season, it is key that you come out of a tough year with a herd that is 'ready to go'. Don't let high rates of udder infection, chronic feet issues or a slip in reproductive performance limit the potential rebound.

Iodine Supplementation

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

Cows low in iodine are often slow to resume cycling. Our cows are typically low in iodine if not supplemented. Iodine based teat-sprays are very effective at supplying iodine as it is absorbed through the skin. If not using iodine teat-sprays there are several other options - for oral iodine supplementation use Stock Iodine 10% at 0.5mls per day or consider Iodine injection (Flexidine).

It is a good time to test Iodine in your blood profiles – just four milking cows are required.

In this Issue

Metrichecking Cows – How to Optimise the Outcome

Endometritis is an infection of the lining of the uterus. Any cow which has an infection in her uterus will suffer a delay in resumption of cycling activity (one cause of non-cycling cows). If infection is still present at the time of insemination then this will interfere with sperm and embryo survival. Long standing uterine infections will also cause permanent uterine scarring. If the surface of the uterus is scarred, implantation and survival of the embryo is impaired.

Trials have shown that cows treated with a Metricure 7-28 days post calving have far better subsequent reproductive results than cows treated 5-8 weeks post – calving. Checking and treating in calving batches will improve results.

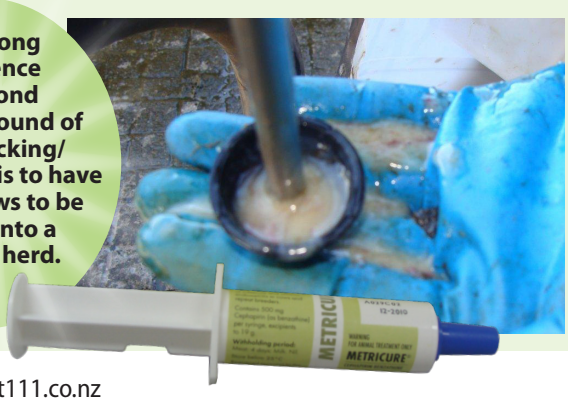
Waiting until early October to do a singular whole herd check is an opportunity cost/lost. Uterine infections (although still present), are harder to detect due to the low volume of discharge from the cervix. This leads to a large proportion of uterine infections being missed. Going to the trouble of Metrichecking a whole herd in October and finding just 2% is probably not an economic exercise.

Metricure ACVM A007394

Cows calved by the 25th of August should have been Metrichecked by now. Cows calving 20th Aug – 10th Sept should be checked mid to late Sept, and cows calving after this date in early October. Use a simple identification such as tailpaint to identify early verse later calvers.

- Dirty cows have ~20% higher empty rates than healthy herd mates
- Untreated dirty cows conceive on average 2-3 weeks later.

Our strong preference for second and third round of metrichecking/ Metricuring is to have eligible cows to be drafted into a separate herd.



Calf Scours in the Latter Half of Calving

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

We field a lot more calls about calf scours in late August and September than we do in the earlier stages of calving. When we visit calf rearing facilities that are having problems at this later stage, one of the notable issues is the accumulated deposition of infectious scours in pens. In the case of Rotavirus, it is possible to infect 10,000 calves from just 1 gram of faeces! So, when a calf pen becomes thick with scour, the sheer volume of viral (and bacterial) load may be enough to overwhelm good colostrum antibody immunity in what are otherwise healthy calves.

It doesn't matter how much disinfectant is sprayed around a very heavily contaminated pen, the reality is you cannot sterilise it. Placing new calves in a heavily contaminated pen will always have a negative outcome.

Where possible avoid housing new or young calves in heavily contaminated pens. Either completely clean them out (disinfect and replace bedding) or get them outside. Straw bale outside shelters may need to be moved frequently so calves do not camp for extended periods in poo. Scours vaccines do work, but they work best when the whole herd has been vaccinated which ensures the calf pens stay cleaner for longer (partial herd or just doing late calvers is a compromise).

Remember to use Metacam to speed recovery and appetite, supply free access Optiguard as a gut protectant, and use Vet Centre Rehydrate electrolytes (we believe our formulation is the best on the market). Discuss whether antibiotic use is appropriate with your vet.

Finally ensure your hay/racks are placed high and are full to dissuade calves eating contaminated sawdust or wood chips on the ground and getting infected. Calves which are sick should never be placed on OAD feeds.

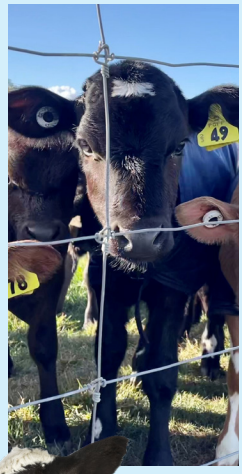
Rehydrate – Calf Electrolyte

Rehydrate is an electrolyte mix that our practice formulated. Its ingredient list is far superior to that offered by many other commercial preparations but at a fraction of the cost.

- It has great palatability
- It corrects metabolic acidosis in dehydrated calves
- The formulation ensures speedier absorption of fluid fraction of solution

Hints for Managing Calf Scours

- Get on top of scours early – pull out sick calves and aggressively treat with electrolytes for several days. Ensure that calves get fed alternating milk and electrolyte feeds. They still need milk for energy!
- Avoid overcrowding pens – keep density down to 1.5m2/ calf OR 20 calves per pen.
- If getting unusually high or unusually sick calves, get it tested. We can run in house testing for: rotavirus, coronavirus, E.coli, cryptosporidium and giardia. Another cause is Salmonella but we have to send that away to the lab. For example, we've already seen a lot of cases of rotavirus this year so it pays to find out if there's high levels of scours as we can customise a treatment plan for this.



Minimising Coccidiosis Outbreaks

Last spring saw several coccidiosis outbreaks so it is likely that we will see more this year. Using the same calf rearing paddocks every year increases the risk as coccidia may survive for up to two years on pasture.

How does coccidiosis present?

Presenting calves are typically >3-4 weeks of age and present with a bloody diarrhoea which may contain gut lining. The tail and back legs will often have this bloody diarrhoea staining. Calves appear very uncomfortable, are seen straining and have tails held in the air. In severe cases, up to 10% deaths can occur due to anaemia and dehydration. In those that survive, growth checks may remain for many months and these animals are more susceptible to other diseases.

What is prevention or cure?

Calf meals which contain coccidiostats are only protective once calves are ingesting about 1kg/ day (check the label as companies differ). If treating/ preventing an outbreak we recommend Toltrox as a singular oral dose 3 weeks after being on pasture, or Deccox for at least four weeks, starting 2-3 weeks after being on pasture. Amphoprim can be used in severely affected animals as it also gives anti-bacterial protection. If you are unsure if your calves are protected, please call us to discuss the options available.

Product of the Month!

Worms & Coccidiosis Protection

Turbo Initial ACVM A011703

Turbo Initial

The ideal weaning drench for calves

- Oral Drench for Calves
- Controls worms with double active, Eprinomectin and Levamisole
- Protects against coccidiosis with Diclazuril
- Includes Selenium and Cobalt
- 35 Day Meat WHP

2.5L Pack $1.56 + GST 6ml Dose

*6ml Dose (60kg Calf)

Toltrox ACVM A011401

Toltrox

The ideal weaning drench for calves

- Oral suspension for the treatment and prevention of coccidiosis in cattle up to 9 months of age

5L Pack $3.86 + GST 20ml Dose

1L Pack $4.24 + GST 20ml Dose

*20ml Dose (60kg Calf)

Heifer Mating – The Key to Success

Jess McKenzie BVSc (Dist) – **VETERINARY CENTRE** Waimate

Last mating we managed to achieve some amazing results off a CIDR synchrony programme with a group of heifers managed by the Vet Centre. These heifers achieved a 73% conception rate to a CIDR synch programme which was well above the clinic average, and 0% empty after just 4 weeks of mating. When asked how we did it, there was nothing other than getting the basics right – something we have been quietly working on for the last few years. Below are a few reminders and the things that I think we managed to do well, to ensure that as the weeks fly by your heifers are in the best position to give you some great results.

1. **Well Grown** – A heifers liveweight determines when she reaches puberty, not her age. Dairy heifers reach puberty when they are at 43-47% of their mature liveweight (ie. you will start seeing rub marks about then). However, conception rates will not be at their best until they are at or above 60% of their mature liveweight. Hence why this all important liveweight target exists!
2. **Nutrition/Winter Feeding** – Winter is a crucial time when liveweight gains in youngstock often decline – almost entirely due to underfeeding. Poor weight gains will make reaching the 60% mature liveweight target at mating very hard to meet. Keep an eye on feeding levels over winter – and weigh them to make sure they are staying on track.
3. **Rising Plane of Nutrition** – Aim to have heifers on a rising plane of nutrition for 6-8 weeks as you head into mating. This ensures that energy in the diet is not limiting. Any period of negative energy balance will have a detrimental effect on mating.
4. **Drench/Trace Elements**

Mid-August:

- Eclipse/Boss (double combination) drench as they come off crop (will also help knock down lice).
- 2ml dose of injectable copper (take care to avoid injectable copper within 4 weeks of mating).

Mid-Late September:

- Topline (single active abamectin) drench to help combat spring pastural larval load.
- 5mls long-acting selenium (Selovin-LA).
- Multimin can also be considered in September with zinc, manganese, copper, and selenium to help support conception rates and immunity.

5. **Reduce Stress** – No sudden changes in diet, environment, or mobs. Watch for lameness.
6. **Ensure AI runs smoothly** – Aim for the recommended 'ideal' AI timing of 4 hours post final GnRH injection when using a CIDR programme. Contact AI tech well in advance to organise.
7. If your heifers are small (ie. under-weight, pre-pubertal) a PG programme may not give you the best results. If concerned, chat with your vet - a CIDR programme may be more suitable.

By far the biggest gains that we have made, with regards to heifer repro performance, have all centred around nutrition. Aiming for 60% mature LWT by mating, improved feeding over winter and a sustained rising plane in the lead up to mating have all been winners for us.

Heifer Mating – Optimising Your Results

Jess McKenzie BVSc (Dist) – **VETERINARY CENTRE** WAIMATE

1. **Live weight targets**
   Percentage of mature liveweight is the key driver of puberty – hitting the target of 60% of mature liveweight at 15 months (mating) will give your heifers the best chance of getting in-calf. Heifers often fall behind over winter, so it is important to ensure they are getting back on track and on a rising plane of nutrition before mating. Get a weighing done as soon as possible.
2. **When to mate**
   First-calvers take about 10 days longer to resume cycling after calving than mixed-age cows. Consider mating your heifers ahead of the main herd to give them the extra time they need, which in turn gives them the best chance of getting in-calf again and coming back into the herd as a 3-year old.
3. **AB vs. Bulls**
   AB and natural mating are two options for mating heifers. Yearling heifers represent the highest genetic merit cows in your herd at mating them to AB is one way to speed up genetic gain.

   Having the right infrastructure and facilities to manage heat detection are key when deciding if heifer AB can work for you.

   If using AB, consider one of the synchrony mating programmes below:

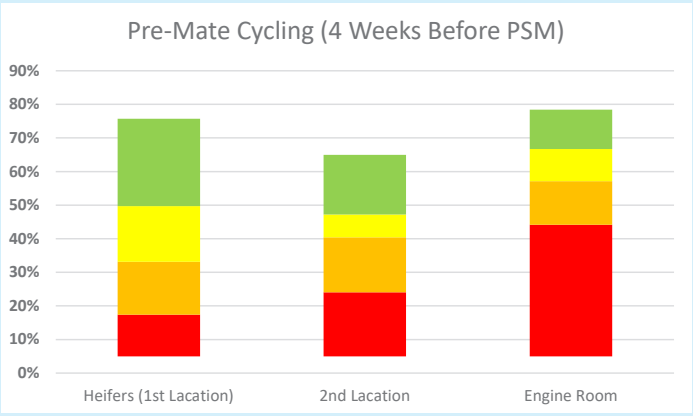
   - **Single-shot PG** – Mate to detected heat until day 6. Inject all unmated heifers on day 6. Mate to detected heat for a further 5 days. Cost approx. ~$3.60 +GST/heifer (Single Shot is based on average price for a group if just 70% are injected).
   - **Double-shot PG** – 1st injection 14 days prior to start of mating. 2nd injection day before mating. Mate to detected heat for 5-6 days. Cost approx. ~$10.20 +GST/heifer.
   - **CIDR Synchrony** – 9 day CIDR programme. 3 x yardings involved. Fixed time AI on day 9 (usually around lunchtime). Cost approx. ~$31 +GST/heifer.
4. **Organising bulls**
   If natural mating is the way you go, make sure you organise bulls well in advance. Ideally on farm 3 weeks before mating starts to allow them to settle in. To cover the poorer performance of yearling bulls, run one yearling bull per 15-20 heifers - with a few extras in case any need replaced. A similar ratio should be used after synchrony programmes.
5. **Which bulls to choose?**
   Careful selection of bulls will help reduce the risk of injury to heifers during mating and avoid difficult calvings. Pick younger, smaller bulls to avoid injury. Both breed, and individual bulls within breed, are important – not all bulls are created equal. Ask your bull breeder about the expected calving difficulty of individual bulls.

Pre-Mate Cycling Rates –
What's achievable by the end of September?

Ryan Luckman BVSc (Dist) MANZCVS (Epidemiology) – **VETERINARY CENTRE** Waimate

Collars have enabled us to start monitoring heats much earlier than when we just relied on tail-paint. As a result, we've got a better understanding of what's achievable early. The graph below shows the percentage of cows that had cycled four weeks out from mating (late Sept for most herds) across three key groups: Heifers, 2nd Lactation Cows, and the "Engine Room", made up of early calving young cows.

Each colour represents 25% of our herds. The variation across herds was close to 70%, with the poorest performance in the heifers.



What can you do?

Farms at the lower end of the benchmarking were able to make some strategic decisions FOUR weeks out from mating, rather than only finding out when they started mating as had traditionally been the case. This allowed them to make changes that increased the likelihood that the cows were on a rising plane of nutrition heading into mating. We broke the strategies down into three areas:

INCREASE ENERGY INPUTS	DECREASE ENERGY OUTPUTS	MAXIMISE HEALTH
• Priority Mob Feeding • Consider additional supplements • Target high quality pasture / lower entry covers • Split Heifer Mob	• Reduced walking for non-cycler mob • OAD Mob • Late Calvers OAD until cycled/mated	• Metricheck (if not already done) • Minerals (pre-mate bloods +/- multimin) • Eprinex / Cydectin Drench • Monitor Mastitis and Lameness levels

For our Allflex Collar farms we will be offering Pre-Mate Heat Benchmarking again this season and will be in touch to confirm enrollment. As part of the benchmarking farms' receive 4x reports (4,3,2 and 1 weeks out from mating), which also include protein curves and non-cycler predictions.

For non-collar farmers who are wanting to see how they stack up you will need to consider putting tail paint on in early September to allow for a full cycle of heats to be recorded.

Rumenox
For use in drinking water
12KG BAG (12,000 Doses)
10% DISCOUNT SEPT
9.3c + GST
per daily cow dose
- No blocked waterlines
- R.O.I. is 3 to 1
- Reducing ketosis and controlling bloat with added production benefits

Rumenox ACVM A010896

The First Month of Lactation –
Minimising Negative Energy Balance

Mat O'Sullivan BVSc – **VETERINARY CENTRE** Oamaru

The management of the first month of lactation beyond the colostrum period very critical for herd level performance. Most cows will spend this period in negative energy balance – i.e. more energy is leaving their system than coming in and therefore they will lose body condition. This is why providing consistently high feed quality is imperative. What we have learnt from cow collars is that farms that are having low rates of pre-mate heats four weeks before planned start of mating will still be low just before mating – i.e. we don't see a miraculous improvement in cycling rates even if the conditions become favourable in the month before mating – the damage has already been done.

Cows in significant negative energy balance may develop clinical or sub-clinical ketosis. Ketones are a by-product of inefficient fat break down and have a side effect of further appetite suppression. Fats mobilised (NEFAs) will also damage and therefore reduce the fertility of developing eggs on the ovaries.

Cows which are well fed/have a good appetite in the first month of lactation will lose less weight and have better mating performance. Consider the following:

- Optimal pre-graze covers of 3,000 to 3,400 kgDM/ha in the first round will ensure good quality and easy harvest for the cow. You still need to maintain a residual at 1,550-1,600kgDM/ha to ensure quality in subsequent rounds.
- Know what your daily cow requirement is and calculate your allocation every day - where feed deficits exist on any given day fill it with appropriate supplement. Milk production requires ~80MJME/kgMS, 60MJME or maintenance and 2-3MJM/km/ walked.
- If the herd or part of the herd is skinny and there are large feed deficits ahead, production may be best sacrificed by OAD milking for up to 3 weeks to maintain BCS leading into mating.
- Use monensin (Rumenox), to increase feed conversion efficiency, by driving proprionate production. Clinical trials show boost in milk protein production and far less BCS loss. Use strategically from calving up until end of mating.
- Internal parasites – the biggest impact these have is on appetite suppression. Almost all farms will have high levels of over-wintered larvae this year. Aim to drench your herd by early/mid-September.
- Vitamin B12 – is a requirement for energy extraction. Deficient cows will lose appetite. We see B12 levels drop at the same time as spring grass goes lush. This is partly due to rapid transit times through the gut impeding B12 absorption. A good rule of thumb is when faeces start becoming loose look to give Vit B12.

Mat O'Sullivan BVSc
Veterinary Centre Oamaru

UdderNEWS

Mastitis and Milk Quality in Early Lactation

It's been a great start to the season weatherwise. The average BMSCC in or area to date is 172,000 which compares well to last year's value at the same time (167,000). It is less likely this year, with the dry weather we have experienced, that infections are being picked up from the paddocks and tracks compared to a wetter spring.

Now is a good time to check out cows that were deemed to be chronically infected (continuously high SCC by herd test) last season but retained and treated with DCT. Those of these cows that remain high as measured by either RMT test of the first herd test for the season should either be culled or effectively milked last for the remainder of the season.

Herds will very soon be split on age. Make sure the younger herd is always milked first to reduce the risk cross infection from older cows.

By September all herds should be targeting BMSCC of under 150,000. Any jumps of over 40,000 in a day of the presence of clots on the filter sock are indication to perform a herd strip.

Keep a close eye on herd teat condition – this can change rapidly when cold, wet and windy. These should look and feel soft and subtle. If they are not you need to address both the application and formulation of your teat-spray mix.

Be aware of shed efficiency and issues that may be causing over-milking (needs to be under 8-9 minutes for row or round time) and also ensure tails are trimmed to ensure good udder hygiene.

For herds averaging over 150,000 in milk solids it a good time to get a Teat Check (clinic service) performed, to identify other potential issues.

Ryan Luckman
BVSc (Dist) MANZCVS (Epidemiology)
Veterinary Centre Waimate

TeatCHECK

September - October "Check-up"

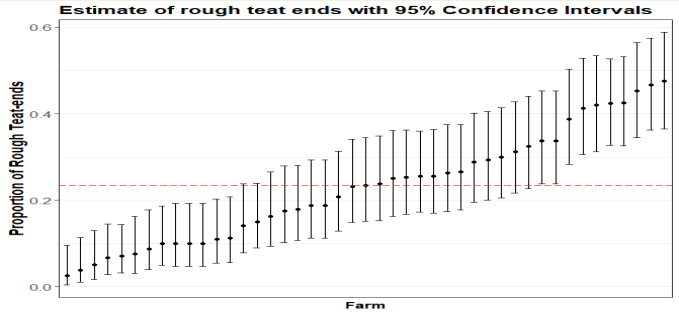
In Autumn we carried out a teat scoring and teat spray coverage monitoring benchmark project. The TeatCHECK service was run by our team of Veterinary Technicians and was designed to identify farms where cow-level factors were indicating that either the milking plant OR the milking routine wasn't optimal. As part of the service they:

- Scored 80 x Teat Scores (40 cows, 1x front and back teat), looking for rough teat ends
- Assessed teat health on these same teats (looking for dry/ chapped teats etc)
- Assessed Teat Spray Coverage on 50 cows
- Recorded Teat Spray mixing rates
- Recorded data on factors that may be underlying risk factors for mastitis or teat end condition (i.e milking length, vacuum pressure, herd management, milking practices)

What did we find?

Rough teat ends

There was a huge amount of rough teat ends across our farms. Rough teat ends are an issue because they are harder to clean with teat spray and can harbour bacteria, increasing the risk of mastitis. On our worst farms almost 50% of teats showed damage, with the average farm having 1 in 4 rough teats (far above the industry target of around 1 in 8 teats).

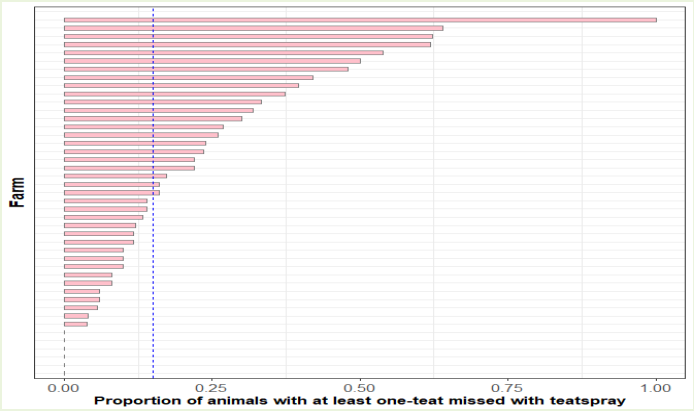


Teat spray coverage

The variation in teat-spray coverage was huge. We know that effective teat spray can reduce the amount of new infections on farm by 50%, so any misses are critical. In the study we had a range of 0-100% coverage. On around 20% of farms more than half of the cows didn't get teat-spray on all four quarters!!

Teat spray concentration / mixing

On almost 1/3 of the farms the teat-spray was too dilute to be effective, often as a result of insufficient mixing instructions (only half the farms had a chart on the wall).



What could be fixed?

For farms that had results that warranted further investigation our vet team carried out more in-depth milking management visits. In these follow-up visits some of the common issues identified included;

- Poor processes / staff communication for teat-spray mixing
- Poorly aligned automatic teat-sprayers (these often just needed small adjustments to make marked improvements in performance)
- Low staff buy-in to the importance of teat-spraying
- High vacuum pressure – there was a strong assumption that this would be okay because they had a "shed check" in Winter
- ACR cut-off times causing over-milking – limited adjustment of these levels during the season on most farms
- Inefficient milking procedures in herringbones leading to over-milking

These issues were able to be rectified over Autumn, meaning teat condition and late season mastitis could be improved.

We are now offering a Spring TeatCHECK visit from mid/late September. This timing should allow enough time for the machine / milking procedures to have produced measurable changes at the cow level, BUT still enable us to make meaningful change to improve the rest of the season.

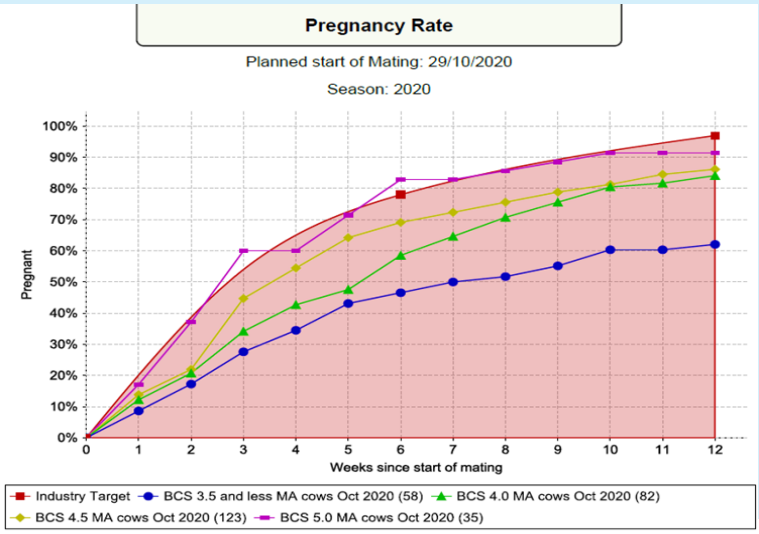
We will be charging $165 (incl) + travel per farm, which will include the visit itself, a comprehensive report, and some practice wide benchmarking. Some farms may require a further visit from one of our trained mastitis advisors if we need to help diagnose the underlying cause of teat issues – note this would be a separate offering/charge.

Get in touch with the clinic to book in your TeatCHECK visit from mid-September.

Strategic BCSing

Mat O'Sullivan BVSc – **VETERINARY CENTRE** Oamaru

To improve reproductive performance of your herd it is important to have as many cows in optimal (BCS 4.5-5.0) condition at mating as possible. Mid-September is a good time to do a strategic BCS to identify cows with a ≤ BCS 4.0. We know it takes a month of improving energy status before mating to make a difference. Identified light cows may go on OAD feeding, increased in-shed feed allocation, drenching, or in mobs which get PKE or FB in the paddock. The below graph shows the relationship between BCS at PSM and pregnancy rate. Contact the clinic to get one of our accredited scorers to visit in a pm milking.



Leaf Growth Stage as a Pasture Management Tool

Lucy Cameron BVSc BSc MANZCVS (Rumin. Nutr.) – **VETERINARY CENTRE** WAIMATE

Grazing management is a balance between what is best for the pasture, and your cows. There are four goals here:

1. Excellent pasture **productivity** – growing as much as you can.
2. Growing high **quality** pasture.
3. Maximising pasture **utilisation** – the majority eaten or conserved, not wasted.
4. Pasture **persistence** – 5-10+ years of good production.

Grazing management involves deciding when to graze a paddock, and how hard (and long) to graze it. You can use pasture height, or pasture mass e.g. rising plate meter, pasture probe, or you can use **leaf growth stage**. Using leaf growth stage to determine when to graze your pasture achieves the four goals of pasture management, and also ensures that the pasture is more nutritionally balanced for your cows.

When is the right leaf stage to graze?

Ryegrass pastures have a maximum of three live leaves per tiller – as the fourth leaf begins to emerge, the first leaf (the oldest) dies. So if they are not harvested by the 3-leaf stage:

- Pasture **quality** starts to drop
- More pasture is **wasted**

If ryegrass plants are grazed too early, they get their energy source removed, which over time reduces their persistence. Photosynthesis in the leaves makes water soluble carbohydrates (WSC), which the tillers use for energy. When a tiller has just been grazed and has no leaves, it needs to use all its stored WSCs to start growing again. Only once the second leaf has emerged and is making WSC from photosynthesis, does the tiller replenish these reserves enough for it to cope with being grazed again. You will also lose a significant amount of **yield** by grazing too early – the difference between grazing at 2-leaf vs 3-leaf has been measured at 1.1t DM/ha/yr for irrigated pasture in Canterbury.

Ideal grazing interval is at the 2 ½ - 3 leaf stage – to maximise productivity, pasture quality, utilisation and persistence

What about the cows?

- At the 2 ½ - 3 leaf stage the ratio of WSC to CP (crude protein) is usually much more favourable – young grass can be very high in soluble protein, which would ideally be matched by an energy source to enhance rumen capture. As the ryegrass plant matures, the WSC levels increase and the CP levels decrease.
- Minerals: we all know potassium can be too high at times, increasing the risk of metabolic issues – as plants mature potassium levels drop, while calcium and magnesium levels increase.
- Digestibility, or energy/ME of the pasture doesn't tend to change significantly until after the 3-leaf stage, where you get a build-up of stem and dead leaf and increasing fibre content.

Exceptions to this rule?

Will depend on soil fertility, and seasonal conditions – keep measuring pasture mass and take this into account as you make decisions e.g.

- Canopy closure – for example in spring, on fertile soils, pastures may reach high pasture mass before the 2 ½ - 3 leaf stage and need to be grazed at an earlier leaf stage, as growth rate will reduce once light can't reach tillers, and pasture will be wasted
- Reproductive growth – may need to graze earlier to encourage vegetative tillers and prevent seed set
- Humid conditions favouring rust/fungal attack – graze early before pasture is unpalatable

How to manage this:

- Multiply the Leaf **Appearance Interval** (the time it takes for ONE leaf to grow) by:
- x2 → to get your **minimum grazing interval i.e. 2-leaf stage.**
- x3 → to get your **maximum grazing interval i.e. 3-leaf stage.**
- The time it takes for one leaf to appear is mainly determined by temperature, and varies year to year but could be as short as 5-7 days in spring, to as long as 20-30+ days in winter.

ACVM A009374

MULTIMIN

A 2018 New Zealand study[1] demonstrated the health benefits of injecting calves with MULTIMIN® early in life. The effect was rapid (within three days of injection), with death and disease consistently halved at all ages for calves that were injected.

Calf (less than 1 week old)
Dose Rate – 1ml (under the skin)

52% REDUCTION IN DISEASE

58% REDUCTION IN DEATHS

Cost per 1ml New Calf Dose 82c Excl GST

1. Bates, A., Wells, M., Laven, RA., Simpson, M. (2019) Reduction in morbidity and mortality of dairy calves from an injectable trace mineral supplement. Veterinary Record Published Online First: 25 April 2019. doi: 10.1136/ vr.105082.

Mastitis, Lameness and Metacam

Hamish Newton BVSc PhD– VETERINARY CENTRE Oamaru

We are seeing more and more work that shows that using Meloxicam (e.g., Metacam) for inflammatory diseases improves a dairy cow's chances of getting pregnant. I don't think anyone would argue that using a pain killer is the decent thing to do when we believe a cow is in pain or discomfort but are there additional benefits? When Meloxicam is used as part of treatment for diseases, where there is no apparent direct link with reproduction, subsequent reproductive performance is improved. This was first recognised in a NZ study looking at whether using Metacam when treating mastitis would improve cure rates. The exciting finding was that cows that had mastitis and were treated with Metacam were more likely to be in the herd next year. This study was then repeated in NZ and subsequently in Europe and it was found that cows were more likely to remain in the herd because they got in calf better. This has led to researchers looking at whether there is a similar effect on the reproduction if lameness is also treated with Metacam, as lameness and mastitis are both inflammatory (as well as painful) diseases, and it does appear to. The big caveat though is that lameness cases were found, and treated, early. There are plausible reasons why controlling inflammation would improve reproduction. Some of the inflammatory chemicals reduce the "pulsatile LH surge" that triggers the release of the egg (ovulation), others result in low progesterone levels (progesterone is in CIDRs that we use to "progesterone prime" non cycling cows) and low progesterone levels are also associated with early embryonic loss. The messages are

1. Lameness does result in lower pregnancy rates, look at the in-calf rate by Diagnosis (Mastitis) graph in MINDA Live if you need convincing.
2. If you are getting lame cows, then early detection and treatment reduces the time they are lame for (a NZ study where lame cows were identified and treated twice a week were on average "non -lame" in seven days).
3. Using Metacam as part of your treatment for lame cows (prior to the end of mating) is very likely to improve their chances of getting pregnant (and early).

Metacam 40mg/ml ACVM A011754

Lameness Research

Andrew Muir BVSc PhD– VETERINARY CENTRE Oamaru

Recently there has been a NZ published trial looking at the recovery rates of cows after being treated for lameness.

Findings:

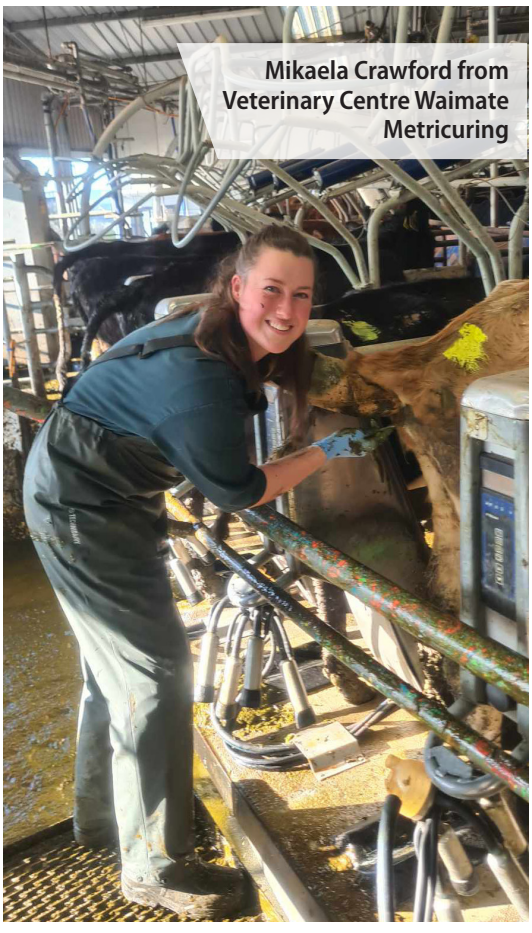
- If you Ignored footrot and issues that didn't involve the foot, 93% of lameness was due to white line disease. This is consistent with what we see in this region.
- On average it takes 7 days for the lameness of a cow to improve. For 90% of them to improve takes 21 days. Improved means that the cow still walks unevenly but it isn't obvious which foot she is lame on.
- On average it takes 18 days for them to stop being lame. For 90% of them to stop being lame takes 35 days.

Practically there are some take home points:

- Cows need to be treated early in the course of the disease, to have these sort of recovery rates. These cows were all treated within 24- 48 hours of being identified and were treated by a vet. Other than preventing lameness in the first place, the next most important part of lameness control is to have staff identify lame cows quickly and get them treated within 2 days by a competent person.
- After therapeutic trimming, cows need to have a block applied to lift the sore claw off the ground (86% of the trial cows had a block put on). Put blocks on all feet except where they are painful on both claws.
- Lame cows need to be put on once a day and kept close to a shed. This is what they did in the study.
- The results indicate that some cows may take several weeks to leave the lame mob. This doesn't mean they should be ignored once they are in the lame mob. If they are getting worse, they need to be re-examined straight away. If they are still severely lame 4 days after being treated, they need to be re-examined as well.

Reference

Lameness recovery rates following treatment of dairy cattle with claw horn lameness in the Waikato region of New Zealand, Mason W et al. N Z Vet J. 2023;71(5):226-235.



Mikaela Crawford from Veterinary Centre Waimate Metricuring

Strategic Application of Worm Treatments

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

Every dairy farm starts the season with a worm larvae load on its pasture. This larval population is consumed, matures, lays more eggs and thus goes through several cycles of multiplication through the season. Pasture larval contamination peaks in March, April and May. The first round of grazing therefore sees a lot of these over-wintered worm larva being ingested. Warmer winters and higher pasture cover sees a greater proportion of these larvae surviving through to the spring.

Strategically the best time to drench cows in the spring is early September. Much of the farm has already been grazed by this point (and thus a large proportion of the over wintered-worm larval load is ingested). By using an effective long-acting product, you will knock out the existing burden and also protect from reinfection until early October. This strategically timed drench can therefore significantly reduce the parasite load on the farm through the remainder of the season.

Trials have shown the ingestion of just 70 larvae/kg of dry matter grazed, will depress grazing times by around 50 minutes a day. On our farms that have a no drench policy, we have found up to 1,700 larvae kg/DM in the autumn!

Eprinex has the most broad-spectrum length of kill across multiple species, but Cydectin is also a good option particularly where lice control is involved. Note abamectin products are no longer registered for lactating cows.

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**7.41kgMS is based on an increase of 0.03kgMS per day over 247 lactation days

1. McPherson, W.B., Slacek, B., Familton, A., Gogolewski, R.P., Gross, S.J. 2000. The Impact Of Eprinomectin Treatment On Dairy Cattle Reproductive Performance
2. Journal of Veterinary Parasitology / The effect of mid-lactation treatment with topically applied eprinomectin on milk production in nine New Zealand dairy farms. 2017 / K.E.Lawrence et al

Tailpaint Regime for Identification of Non-Cyclers

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

Getting the best results takes good planning. Where applicable back the cows likely to give the highest returns. From our studies the best return comes from non-cycling cows calved at least 40-45 days before treatment. The following is a tail paint regime to best set up a non-cycler programme.

- Planned Start of Mating (PSM) for cows - 24th October
- Mark all cows (as they calve) with a Yellow stripe over the hips that calve after the 4th of September. If they calve after the 25th of September give them **TWO** Yellow stripes.
- 35 days before the PSM (~19th of September) all cows that had calved up to the 4th of September (Blue and Green Hip Stripe cows) to get Red Tailpaint on Tailhead. All cows that calved after this date get Yellow Tailpaint on the Tailhead.
- Touch up every 5 days. As cows cycle repaint them in Green
- 9-5 days before PSM all remaining Red Tailpaint cows are eligible for CIDR treatment
- 1 day (24hrs) before PSM repaint all cycled cows with Green.
- As cows are mated paint them Blue
- 8-11 day into mating all remaining Yellow Tailpant cows with **ONE** hip stripe are eligible of CIDR treatment
- 21 Days after the PSM all second-round inseminations to be painted Orange.
- 24 days into mating all outstanding non-mated cows (including the Yellow **TWO** hip stripe – very late calvers) are eligible for hormonal treatment.

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