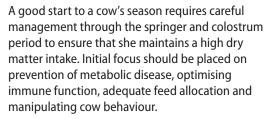


First Two Months of Lactation - Minimising Weight Loss

Mat O'Sullivan BVSc - VETERINARY CENTRE Oamaru

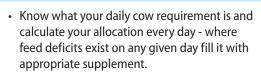


However, the first month of lactation beyond the colostrum mob is still very critical. Most cows will spend this period in negative energy balance – i.e. more energy is leaving their system than coming in and therefore they will lose body condition. This is why providing consistently high feed quality is imperative. We are already seeing many farms that are struggling to manage very high pre-graze covers due to good growth rates through the winter. These are impacting voluntary intakes and may have lower ME.

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.

Cows which are well fed/have a good appetite in the first month of lactation will lose less weight and have better mating performance. Try some of 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.
- · Aim to get your milking cows eating 4% of body weight in dry matter ASAP.



- 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 starts becoming loose look to give Vit B12.

Rumenox

For use in drinking water 12KG BAG (12,000 Doses)

10% DISCOUNT SEPT

7.7c + GST per daily cow dose

- No blocked waterlines
- Reducing ketosis and controlling bloat with added production benefits

• R.O.I. is 3 to 1

Iodine Supplementation

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. There are several options for oral iodine supplement – contact your Prime vet. Blood testing is a good way to establish a status.

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Butocin Oxytocin

Due to stock shortages, we are currently stocking Butocin Oxytocin - this is double strength. For milk let down with Butocin, a smaller 1ml dose is required.



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 become 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 place on OAD feeds.

Hydration – Calf Electrolyte

Rehydrate is an electrolyte formulation 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

Finja's Hints for Calf Scours Management

Finja Schmidt BVSc VETERINARY CENTRE WAIMATE

- 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

Finja Schmidt BVSc - VETERINARY CENTRE WAIMATE

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, be 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 antibacterial protection. If you are unsure if your calves are protected, please call us to discuss the options available.





Metrichecking

Luke Smyth BVSc - VETERINARY CENTRE OAMARU

Should I bother getting my herd done?

At calving around 90% of cattle will have bacterial contamination of the uterus. In many cows the immune system will clear the contamination.

Some cows however will go onto develop either metritis or endometritis. Metritis is a significant infection of the uterus that makes the cow sick. Endometritis is an infection of the lining of the uterus that doesn't make the cow sick but is often chronic and reduces the chance of the cow becoming pregnant. We often refer to cows with endometritis as "dirty cows"

Studies suggest that around 17% of cows in New Zealand herds will have endometritis. Some herds will be higher than this. In these cows the bacteria, pus, and inflammation associated with the infection can have a major impact on reproductive performance come mating time. Cows with endometritis will take longer to resume cycling, longer to conceive and ultimately will have a higher empty rate, all of which cost you money.

How do you tell which cows are dirty and how many of them there are in your herd?

By Metrichecking...

Metrichecking is using a metal rod with a rubber cup on the end, inserting it into the cow's vagina and pulling a sample back out and checking it for the presence of pus. Cows that have pus present are then treated with an antibiotic, via a pipette, directly into the uterus.

Metrichecking can be used in several different ways.

Some people like to draft out their at-risk cows (assisted calving's, twins, retained foetal membranes, skinny cows, sick cows, down cows) and only get those cows metrichecked. This method risks missing 30% of the total number of dirty cows in the herd.

A far better method is to metricheck the whole herd

Herd metrichecking can be applied in one of two ways.

- The first is to do one whole herd metricheck around a month before mating starts.
- The second approach is to do multiple metrichecks beginning around three weeks after the first cow calves and then repeating them around every three weeks so that the vet shows up and checks the herd about three times (referred to as batch metrichecking).

Recently a large NZ study involving 15,500 cows on 29 dairy farms compared doing one whole herd check with the batched metricheck approach, as above.

This study found that the metricheck positive

cows identified and treated in the batched approach had a 10% higher six week in calf rate and a 3% higher twelve week in calf rate (or a 3% lower empty rate) than the cows identified and treated using the one whole herd metricheck approach!

So, from practical New Zealand research, it is clear that:

- Batch metrichecking starting three weeks after the beginning of calving and repeating every 14-21 days for three herd checks is the most effective method for effectively identifying and treating dirty cows.
- Dirty cows left untreated have significantly lower fertility and will impact your herd's overall in-calf rates, and

Can you afford to leave your dirty cows untreated this coming season? Call The Veterinary Centre to discuss and book in metrichecking soon before the chance passes you by.



Heifer Mating – Optimising Your Results

Jess McKenzie BVSc - 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. ~\$3.50/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/heifer.

 CIDR Synchrony – 9 day CIDR programme. 3 x yardings involved. Fixed time AI on day 9 (usually around lunchtime). Cost approx. ~\$31/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.



Uddernews

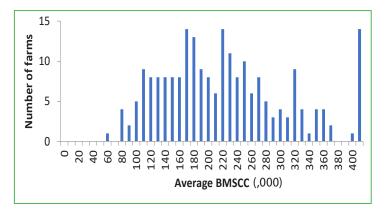
Hamish Newton BVSc, PhD VETERINARY CENTRE Oamaru





Bulk Milk Somatic Cell Count

Most people's bulk milk somatic cell counts are on par with last season. The average BMSCC to date for the 2021 season is sitting around 200,000. This will (should) decrease as we get closer to peak lactation. Below is a graph of each farm's average BMSCC.



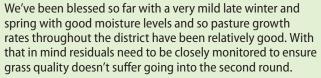
It is still early in the season, so take any chance you can to find any high somatic cell cows and prevent them infecting other cows. It takes very few infected cows to make a big difference to your BMSCC. An infected cow either with clinical mastitis (clots) or subclinical mastitis (mastitis you need to use test to find e.g a paddle test) will, if not managed separately or successfully treated, go on to infect other cows. A bit like Covid if you find the infected cows early and isolate them until they are no longer infectious you will break the chain of transmission. "Going hard and early" in the season will make your life so much easier after Christmas and you will be able to make decisions around culling and drying off times that won't be influenced by mastitis or BMSCC.

If finding, isolating, and treating mastitis cows is the equivalent to testing and isolating, to use a COVID analogy, then teatspraying is analogous to wearing a mask.

Every teat, of every cow, at every milking, needs to be covered in teatspray.

Managing Great Grass Growth this Spring





- If post-grazing residuals are consistently above 1500-1600 kg DM/ha, or 7-8 clicks on an RPM, this will adversely affect pasture quality in the second round of grazing, which will have critical flow on effects for mating and production
- If this is occurring regularly considering removing some supplements from the system and increasing pasture allocations to ensure cows can graze down to this target
- Cows given supplements will eat a little less grass in response, this effect is more common in spring and with starchy supplements and can lead to a drop in grass quality if residuals are not controlled
- Monitor the number of animals in the mob in spring this changes regularly and has a big impact on the amount you think you are allocating
- Calculate m² required per cow and check the total area to be grazed aligns with your SRP
- Remember to account for increasing intakes after calving a cow's dry matter intake increases over several weeks from around 65 – 70% at calving until around 10 weeks after calving when she can eat almost 100% of her DMI, or 18 kg DM for a 500kg cow
- At a herd level peak intakes may be reached at around 14 weeks post-calving

Make the most of this mild spring we're having, and use this first grazing round to set the paddocks up well for each subsequent one, so that both grass growth and cow production is optimised this season.

Eprinex Pour-On for Cattle

Milk Production Benefits

Trial work initially by McPherson et al 2001⁽¹⁾, then repeated by Lawrence et al 2017 ⁽²⁾ demonstrated that Eprinex

- gave a milk production increase of 0.03 kgs of milk solids per cow per day,
- equivalent to 7.5 kg milk solids per cow over a 250 day lactation.

Reproduction Benefits

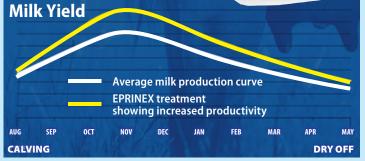
Trial work by McPherson et al in 2001 showed

- Heifers, following their first calving,
 - achieved their subsequent conception on average 12.9 days earlier than untreated controls, and
 - had an 11% higher conception rate when treated with Eprinex compared to untreated controls.

Features

- Persistent Activity 28 days persistent activity against Ostertagia
- · Nil meat/Nil Milk withhold
- Exclusive trial work showing significant milk production increase and enhanced reproduction performance
- From \$4.69 plus gst per 500kg cow dose.





- 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
- . 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

Transition – Where are the easy wins?

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



The transition period (first few weeks post calving) is a critical time for cows that sets them up for the season. All cows go into a negative energy balance (NEB) post calving and need to strip weight off their back to milk. The worse this energy deficit is the greater the need to mobilise fat will be, which has known negative influences on health and reproduction.

We've traditionally relied on things like increased NEFA levels and BCS loss post-calving to assess the success of this transition. However, with collar data we now have the ability to monitor the rumination rate and recovery of cows in real-time. This has given us an unprecedented ability to detect issues early, as well as the ability to trial fixes and get feedback within a day as to whether these changes have worked.

Below is a screenshot of the report that we have set up for our collar farms this season. It breaks down the cows into groups based on days calved, giving the average daily rumination of that group. This has meant we can pinpoint not only that issues are occurring, but also to what group on what day. Having that level of detail as well as immediate feedback to changes has helped us immensely with trouble-shooting issues.

Below are some of the common issues we've seen and resolved this season:

Springers

• Indications of tight springer feeding with low ruminations prior to calving.

We've seen the "keep springers tight" mentality taken a bit too far on quite a few farms this season. On some farms this has meant that only 60% of maintenance energy has been offered. Good recovery requires a minimum of 90% maintenance energy in this group, with some work showing that pre-calving rumination levels are a predictor for post-calving levels.

Day 0

- Keeping cows on the yard for a few hours (rather than a drop-in paddock)
- Leaving cows in the paddock with the calves on them for 24 hours (creating bonding)

The top performers are getting the cows out early and into ad-lib feed ASAP. Removing calves early also helps reduce the time cows spend at the gate not eating, as well as reducing mastitis risk.

	Cow Number	Group	Lactation Number	Daily Rumination A 1	Rumination Peak	3 Day Total Rumination
⊕ Da	ys in Lactation: 1					
	16			293.56		-204.13
⊕ Da	ys in Lactation: 2					
	22			424.18		-115.18
⊕ Da	ys in Lactation: 3					
	22			445.86		25.05
⊕ Da	ys in Lactation: 4					
	24			461.29		140.22
⊕ Da	ys in Lactation: 5					
	13			473.77		182.67
⊕ Da	ys in Lactation: 6					
	22			507.41		145.71
⊕ Da	ys in Lactation: 7					
	12			494.25		98.50
⊕ Da	ys in Lactation: 8					
	20			490.55		113.43
D n-	un in Lactations O					
	412			469.69		11

Day 1-4 (colostrums)

- · Inadequate lime-flour dusting
- Tight breaks overnight there is no ability to make up for a tight break, any time feeding is restricted it's showing up with low rumination rates
- Targeting low residuals (driving inadequate DM intake)
- Very high entry covers, especially with poor quality grass. This was best diverted to other non-critical mobs

If you prioritise only one mob on the farm this is the one!!! A poor recovery over the first 4 days impacts on the following period, even if everything is optimal then (even one bad day can be enough!). The keys here seem to be feed on offer 24/7, shifting 2-3 times per day (feeding out silage separate to when you shift the break has helped motivate an extra round of eating), plenty of calcium, and keeping residuals high. Offering something easy to eat (i.e grain / PKE / silage) appears to be critical to help drive adequate intake. OAD milking of course helps.

Day 5+ (milkers)

- Inadequate feed offered (primarily due to not increasing feed as more cows are introduced)
- Cows being moved from the colostrum mob into the milkers and missing the break movement or silage feeding
- · Poor pasture quality
- Grass only diets offered to heifers (they appear to need an easy to eat feed to keep up intakes)
- Heifers have struggled the most at day 8-14. Possible issues may include tight udders, competition (with mob sizes increasing), high cover entry, BCS at calving

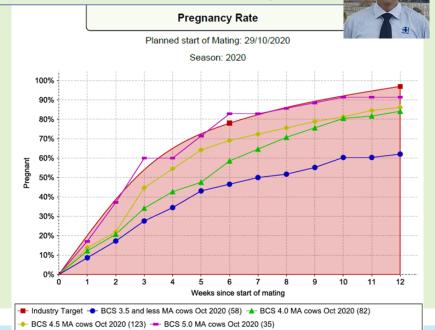
Not altering feeding for changing mob sizes appears to be a constant battle on farms. Think about how cows join a new mob (will they get the same access to feeding that day). Finally monitor your heifers – they really are getting bullied and the sooner they can be separated into their own mob the better!

If you've got any concerns about your transition get in touch with your prime vet. We can help trouble-shoot potential problem areas and be a sounding board for ideas.

Strategic Body Condition Scoring

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 which are ≤ 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.



Multimin Injection Premating to Lift Reproductive Performance (A Veterinary Centre Trial)

Mat O'Sullivan BVSc VETERINARY CENTRE Oamaru

S3.6

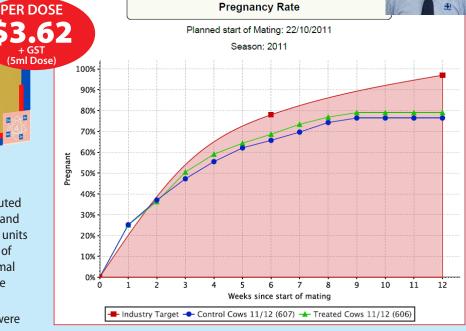
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A local 1,200 cow farm receiving a well reputed trace mineral blend had premating bloods and livers taken. Serum selenium averaged 880 units and liver coppers averaged 790 units. Both of which are very good and would under normal circumstances not be recommended to give additional supplementation.

Half of the herd (606 even ear tag # cows) were given Multimin (a 5ml dose), 3 weeks before the PSM. All cows on the farm continued to get minerals through the dos-a-tron throughout the entire lactation.

The result

The Multimin treated cows referred to as 'treated cows' are in green in the graph below and the non-treated cows are referred to as 'control cows' and are in blue.



From 4 - 7 weeks after the start of mating there was a 4% difference in pregnancy rate between the treatment and control groups in favour of Multimin. By the 9 weeks there was a 3% difference in Not In-Calf Rate

This difference meant 22 extra Multimin treated cows got in calf over the seven-week Al period and the median conception date was shifted forward by 2.3 days.

At a \$6.50 pay-out this would provide a gross return of \$20/cow treated in additional milk production, a \$30 return for reduction in empty rate (from a nine-week mating - using pregnant value minus cull value) and another \$5/cow treated attributed to additional heifer replacement.

Total net return = \$51/cow treated.
The Return on investment (ROI) in this case was 14:1

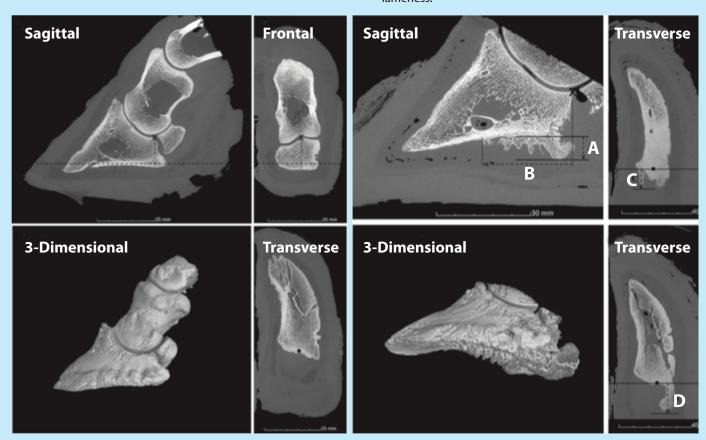
Managing Lame Cows

Euan Tait BVMS
VETERINARY CENTRE Waimate

When a cow goes lame, it is not only the external damage we can see that is the issue. The digital cushion is an important structure within a cow's foot acting as a shock absorber and bearing the cow's weight with every step she takes. It is made up of fat and connective tissue. Lameness affecting the claw horn also leads to changes within the foot, specifically to the digital cushion and the bone it protects. Using NSAIDs (Ketomax/Metacam etc) on lame cows can significantly decrease these changes within the foot. NSAIDs provide both pain relief and have anti-inflammatory properties.

During lameness, the following steps happen -

- 1. There is local inflammation within the foot and on the sole
- 2. Fat from the digital cushion is utilised 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. Inflammation in the foot leads to new bone being formed within the hoof
- 5. A vicious cycle of cattle lameness subsequently begins as these events 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.

Correct management of lame cows allows for a quicker resolution of that lameness case, decreased bony changes to the foot and a reduction in further cases of lameness.

- Prompt, early treatment it is recommended that anything of locomotion score 2 is now treated within 24 hours for a more successful outcome
- 2. Place a **block** on the unaffected claw to reduce weight bearing
- 3. **Pain relief** and anti-inflammatories are a must. Recent studies have proven that a 3 day course of Ketomax 15% decreased further lameness incidence and improved cow welfare Ketomax is also nil withhold on milk
- 4. Ideally, if you can keep lame cows close to the shed and in a OAD milking mob to **reduce walking** this will also increase the speed at which they improve.

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.













Congrats!

Ryan Luckman Australian and New Zealand College of **Veterinary Scientists in Epidemiology**

Congratulations to Ryan Luckman, Waimate, who last month passed his Membership examinations to the Australian and New Zealand College of Veterinary Scientists in Epidemiology. (Epidemiology, which is the study of disease patterns and causes in a population, has been in the news a lot over the last year or so, following Covid spread around the world). This is an outstanding achievement for Ryan, while working fulltime with a young family, and also being involved with so many community groups. His epi study has catapulted Ryan into his work with collars and he is now a leading vet for the interpretation and application of collar data.

Well done Ryan!





You are all busy so get your orders in to your nearest clinic by 10am for same day delivery!

Phone us your

