Veterinary Centre MoozNews

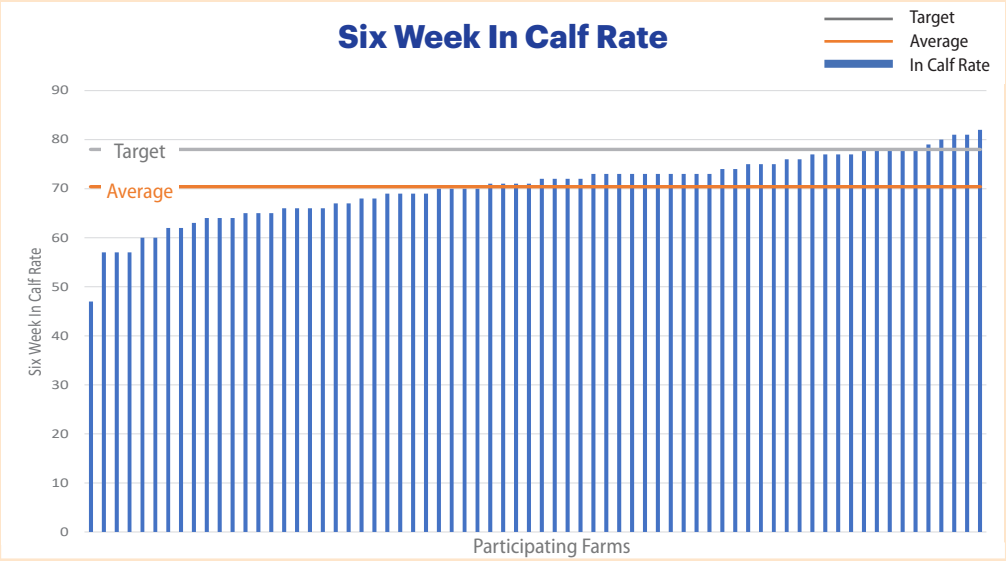
Six Week In Calf Rate

Hamish Newton BVSc PhD – **VETERINARY CENTRE** Oamaru

As of the 29th of January 2024 we have access to 70 farms' six week in calf rate (6WICR).

The average 6WICR this season to date is 70.4%. This is a great result compared to the last few seasons. (We normally have reported the 6WICRs we know about up to the end of January.)

Season	Average 6WICR at End of January
2023-24	70%
2022-23	66%
2021-22	67%
2020-21	65%



The industry target of 78% of the herd pregnant in the first 6 week of mating this year to date has been achieved by 10 farms to date (vs. 2 farms at the same time last year).

In this Issue

16 Hour Milking – Learnings from Collars

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

Many farms will use extended milking strategies in the second half of lactation to reduce workload, maximise condition gain before dry-off, and reduce lame cows. Cows which are producing less than 1.6kgMS/day should have little reduction in yield on a 16 hour milking routine.

However, one of the key points to this transition is that milk production and condition gains will only be seen if cows continue to be fed like a twice a day milker! Allocating feed across variable inter-milking intervals can be tricky. Monitoring the milk docket to observe fluctuations often doesn't work as the pick-ups differ in the number of milkings in the vat.

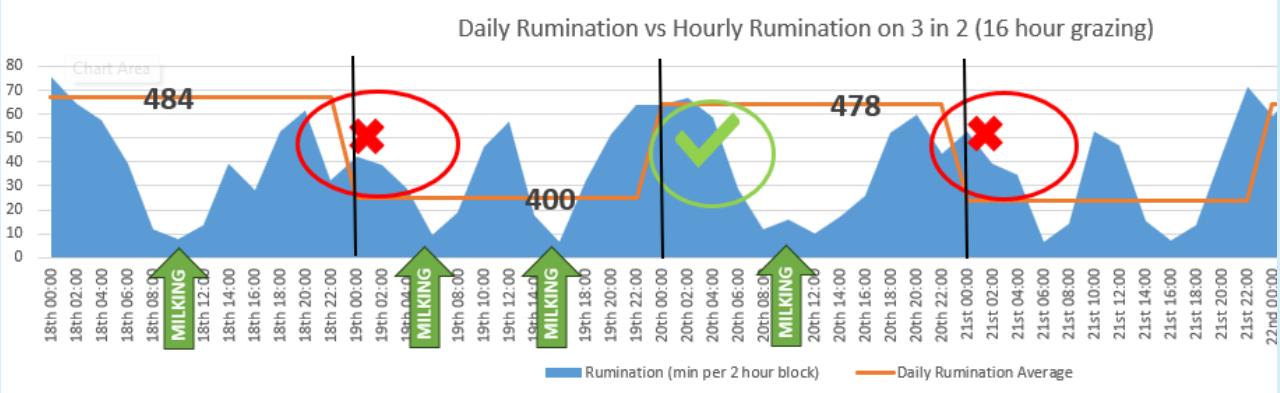
One of the common issues we've been able to pick up with collars is variable allocation, demonstrated by fluctuating total daily rumination. In the example below cows were ruminating at around 400 minutes per day on the days they had two milkings, but 480 minutes per day on the one milking days.

28/04/2023		519.9
27/04/2023		432.6
26/04/2023		551.4
25/04/2023		441.5
24/04/2023		569.6
23/04/2023	TAD Milking	396.2
22/04/2023	OAD Milking	478.3
21/04/2023	TAD Milking	398.6
20/04/2023	OAD Milking	478.6
19/04/2023	TAD Milking	400.6
18/04/2023	OAD Milking	484.5
17/04/2023		398.9
16/04/2023		474.7
15/04/2023		396.1

What was causing the fluctuations?

Further investigation on this farm showed that the drop in rumination on the TAD milking days was actually due to under-allocation of feed after the 10am milking (on the one milking day). The cows were running out of feed, with rumination falling off sharply at around midnight coming into the new day. On the days that breaks were allocated after a morning and night milking the rumination held after midnight, leading to an extra 80 minutes of rumination on those days.

The image below shows the same rumination data from above broken down into 2 hourly segments. The drop in rumination after midnight is clear to see in the red circles following the OAD milking break (the black lines show midnight).



Options to mitigate the risk of under-feeding on days where cows are only milked once include;

- Continue TAD paddock movement, with afternoon break shifts on the OAD milking days
- Allocating total feed over a 48 hour period and splitting the hectares fed according to the inter-milking interval. For example, in the situation above where cows were milked at 10am and then 5am (a 19 hour interval), then the break size would be 19/48 = 40% of the total hectares fed over the two day period.

Whatever your strategy the key is to monitor how much feed is left. The data coming from our collar herds is showing that a late night check following OAD milking could be a prudent insurance measure.

Maiden Heifer Pregnancy Test Results

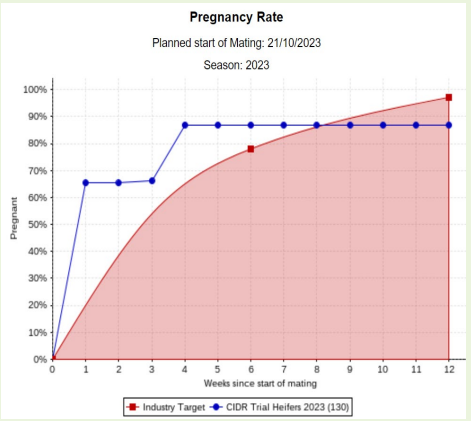
Mat O'Sullivan BVSc – **VETERINARY CENTRE** Oamaru

At this point most of the aged pregnancy testing in maiden heifers has occurred. In the main this has been done on heifer lines that have used some form of synchronised AI program.

These programs consist of either Modified Why Wait PG – (heifers mated for six days to natural heat, the remainder PGed and then heat detected for a further five days), Double shot PG (two doses 11-14 days apart, then followed by five days of heat detection/AI or finally using CIDR synchrony.

The traditional CIDR synchrony program involved a 7-day CIDR and fixed time AI. Results with this generally produced conception rates in the mid-to low 50's. This season we have run a study using a 5-day CIDR and two days of heat detection. Three out of the four farms had conception rates in the mid to low 60's. All four had excellent synchronisation rates and pregnancy rates in the mid to high 80's after 4 weeks. All four mobs had heifers that were at or exceeding target liveweight at mating.

Heifer weights and condition was excellent at mating this year. Across the board we have seen some superb pregnancy rates to AI from PG programs with many achieving 60-65% rates which is testament to their size and condition.



Yersinosis in Calves

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

Yersiniosis frequently rears its head in the months of December through to May in calves of 4-10 months of age. Calves with the disease suffer a chronic scour, elevated temperature, loss of appetite and weight loss. It is caused by the bacteria Yersinia pseudotuberculosis, which can be found in the gut in over 85% of herds of yearling heifers around the country and up to 60% of individuals. Although it is commonly found in the gut of healthy calves, an overgrowth of the bacteria and invasion of the gut lining results in millions of micro-abscesses throughout the length of the intestines.

Conditions which may precipitate an overgrowth in the gut are low levels of the trace elements copper and selenium, parasitism, BVD, long transport, poor feed quality or feed stress.

Once an outbreak starts, an insidious spread through a mob of calves occurs via the faecal-oral route.

Control and treatment comprise the removal of affected animals and use of appropriate antibiotic. Further prevention should focus on the underlying risk factors – correction of trace mineral status, drenching and increasing feed allocation. We have seen a lot of success with the use of Multimin injection.

There is a registered Yersinia vaccine available for deer. This has been used off-label in cattle but can result in anaphylactic reaction. We have a limited number of clients that have used a single dose of this vaccine with apparent protection inferred. You would need to talk with your prime vet about the pros and cons of using this product off-label.

Young-stock – Animal Health Plans and Drench Resistance

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

A well thought out animal health plan for young-stock can be worth its weight in gold. Not only when it comes to keeping up with treatments and reminders of what is required and when, but sitting down with your vet and customising one to your needs can also help ensure that you are making the most efficient use of your time at each yarding.

They are not a one-size-fits-all. There are a range of products available to use which depending on location, travel times to get there, stock numbers and staffing levels/ability can be suggested, or strategically used, to turn what used to be a chore into an easier option for you.

A large proportion of young stock are still being found to have inadequate copper status throughout their first two years, which is a concern considering the recent focus on heifer fractures. Copper is not only required for growth, but also for proper cross-linking of collagen during bone growth along with other connective tissues. Keeping copper levels adequate is easily achievable when using the right products at the right times.

Sustainable drenching practices are also being discussed more frequently, which is great. This topic is particularly important with intensive young-stock grazing blocks where young-stock are repeatedly grazed. Although drench resistance in cattle is not as widespread as it is in sheep, it is out there and should be considered.

1) Trace Elements

Integrating the use of long-acting products is an effective and efficient way to ensure trace elements remain adequate in your young-stock. Copper bullets and Selovin-LA (long-acting selenium injection) are both great options.

- R1's should have received some copper supplementation by now, ideally a 10 gram copper bullet in Dec/Jan. This will take them through to April/May before a top up is required.
- A single 3ml dose of Selovin-LA to R1's in January will take them through to Aug/Sept before another 5ml dose is required pre-mating. Thereafter, no further selenium should be required until a short-acting boost pre-calving. Selovin-LA is an extremely effective and proven selenium product, ideal for use in youngstock.

2) Drench Checks

On the topic of drench resistance, a drench check 7-10 days post-drenching is easy to perform and a good starting point to assess the effectiveness of drenches currently being used on a property. Collect 10 fresh faecal samples 7-10 days post-drenching and drop them into the clinic where we can quickly perform a faecal egg count to ensure the egg count is zero (ie. the drench is working effectively). If you talk nicely to your territory manager, they may even pick them up for you….

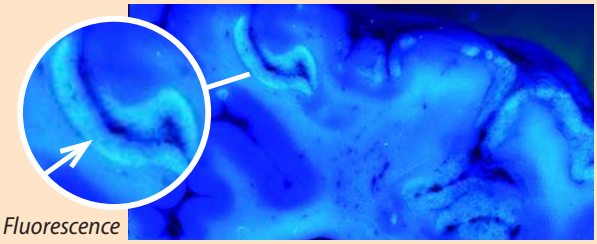
Drench resistance emerges over time, so regular monitoring will catch any issues early on.

If a tailored youngstock animal health plan to make your life easier sounds like a good idea, or if you'd like to discuss the topic of drench resistance further get in touch.

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.

Hamish Newton BVSc, PhD
Oamaru Veterinary Centre

UdderNEWS

Look at cow flow first to speed up milking

In your Fonterra farm insights report, there is a section on "milking efficiency". There is a calculated figure that suggests how many hours a week may be saved if your farm "reached 80 to 100% of its potential milking efficiency using the maximum milking time (MaxT) strategy".

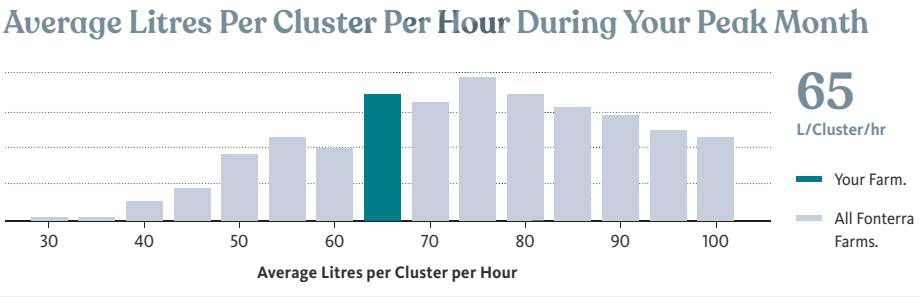
I have dealt with a couple of farms where a maximum row time of x minutes has been implemented. This has seemingly resulted in an increase in the number of mastitis cases. What had been forgotten is that row time in a herringbone shed includes the time taken for the cows to exit and enter, not just the time that the cups are on the cow. Platform speed on rotary is often limited by how keen the cows are to enter shed as well. Adherence to a time target resulted in less time for mastitis detection and teatspraying as the only thing that changed was the time the cups were on the cows.

If you feel your milking efficiency is poor, or row times are too long, before you decide that cups are coming off at set number of minutes take a critical look at the whole milking process. We know that leaving milk in the udder is Ok if it is within the "pipes" of the udder (cisternal milk) as it is not in the glandular or milk secreting part of the udder, this is why there is less emphasis these days on completely milking out every cow every time, and why ACR cut off flow rate settings have increased over time with no problems.

We also know over milking is bad, but just taking cups off earlier to speed up milking is not a great idea if cow flow is a limiting factor on milking efficiency. If you are looking to improve "milking efficiency" look at the afternoon milking first as there is less milk to harvest, but still the same number of rows to get in and out and see what part of the milking (not the time the cups are on for) can be improved before you set a maximum row time target.

- Is everyone who milks following the same routine? Cows like consistency.
- Is the backing gate used predictably and responsibly?
- No shouting?
- You will have known slow milkers – can these be identified and cupped on first?
- Are there obstructions slowing the exit of the cows? Do they still need to walk through the drafting gate?
- Can the front gate be opened a bit earlier?

If cow flow can be improved (consistent/predictable and calm quiet milkers) there is still time for mastitis detection and effective teatspraying which I feel gets neglected if milking is being sped up by saying "get the cups on and off quickly". The first aim should be to improve cow flow if you want to speed up milking.



High Nitrates in Ryegrass

Ewan Penny BVMS – **VETERINARY CENTRE** Waimate

In December 2023, a run-off block in Waimate district found toxic levels of Nitrates in a paddock of permanent ryegrass, sown October 2023. Calves turned out onto the pasture were promptly removed after owners noticed breathing difficulties and wobbling/drunkenness (ataxia) in the R1 calves. Other considerations were pneumonia, lungworm and Vitamin B1 deficiency. These were the first animals to graze the paddock.

Samples of the grass tested for nitrates initially gave a result of 200 parts per million (ppm), which subsequently tested at 50 ppm the next day, a particularly abrupt drop in levels. It was agreed to test a third sample later in the week before grazing, in case the lower result was misleading due to differences in the area of the paddock sampled. The third sample was never taken, as the owner decided to make balage from the crop, instead of grazing. Whilst the ensiling process does not reduce nitrate levels, leaving the crop to get to the seed-head stage allows enough time for nitrates to decrease in the plant.

No Nitrogen fertilisers had been applied since sowing, and the paddock had been in fodder beet for 1 year prior to sowing grass. Fodder beet yielded poorly (~11tonnes DM/ha) due to compaction, so had a lower than average stocking density the year previous.

The exact source of the high nitrates remains unknown, however the clay soils at the run off will play a role, by sequestering nitrates from the fodder beet crop and making them available to grass the following year.

Points to note;

- Rye-grasses, especially re-seeds, can build up toxic levels of nitrates for grazing animals. Keep this in mind!
- If in doubt, pick up a test kit or bring in a sample.

February Reminder

- **Pink Eye**

The practice is seeing an increasing number of cases of Pinkeye. This is a contagious disease of calves spread primarily by close contact with infected animals and by flies. Vaccination with Piliguard (A8192 RVM) can be a cost effective control method although vaccination must be given prior to disease occurring. In the affected animals topical ointments or sub-conjunctival injections with appropriate antibiotics are usually effective in curing the affected animals.

- **Lung worm**

We saw numerous cases of lung worm outbreaks in January. 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.