



The magazine of Cambridge Vets *treating all animals large and small*

Spring 2023



## Lameness

I attended a seminar **on lameness and anti-inflammatories** back in June, which came up with some interesting points:

The median prevalence of lameness in the NZ herd is 3% i.e. 3 cows in 100 will be lame on any given day. Although NZ has a low rate of lameness compared to other countries, we have a very wide range across farms. Lameness impacts on a cow's behaviour (grazing) and the stress and inflammation lameness causes releases cortisol, IGF and IL, and lowers LH and progesterone. The result of all this is lameness increases the chance of them becoming a non-cycler.

Combining an injection of NSAID with applying a block after trimming a lame cow's foot:

- Increases the cure rate two-fold.
- Decreases the risk of culling
- Improves reproductive outcomes

BUT they do have to be identified early – those chronic lame problems are difficult to fix!

A study for claw horn lameness compared giving Metacam to not giving any anti-inflammatory. The Metacam increased subsequent conception rate by 42%! It lifted pregnancy rate at 6 weeks from 63% to 74% and overall pregnancy rate from 77% to 88%.

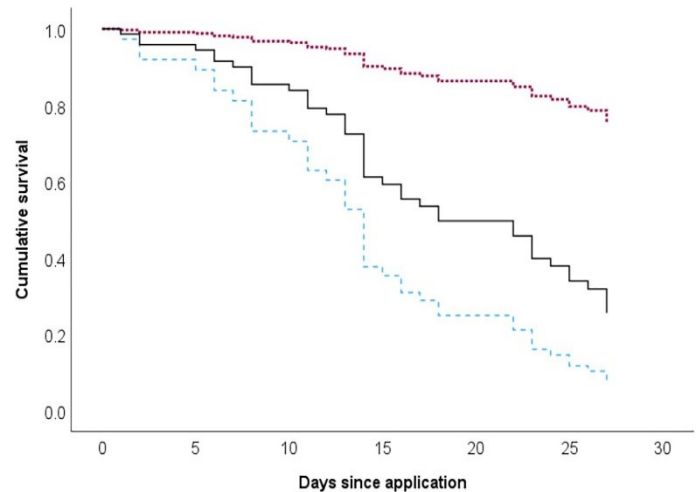
<< More on Lameness continued on Page two >>



## Persistence of orthopaedic hoof blocks for the treatment of lame cattle kept permanently at pasture

A related study in the same journal by Muller *et al* looked at how long hoof blocks stayed on when used for lame cows kept on pasture. They used wooden blocks, plastic shoes, and foam blocks. The vet revisited at 14 and 28 days, but the farmers noted if a block fell off in the meantime. The plastic shoes were retained for much longer. At any time point, the wooden blocks were 5 times as likely to fall off, and the foam blocks nearly 10 times more likely. This may be because there is more hoof contact area with the plastic Shoof, or different glue types. Other potential factors affecting block retention include humidity, temperature, floor surfaces, experience, preparation method, cow breed / weight etc. However an important question is – how long do we want them to stay on for anyway? If we want them to provide elevation until a horn lesion has healed, 14 days would be reasonable. All 3 block types managed this for 50% or more. The previous article found that half the cows were not lame after only 7 days. And is it advantageous or detrimental to have the blocks on for a long period of time?

Beyond a month there may be a risk of damaging the sole horn, with bruising and ulcers, so taking them off at this point is an option anyway. We could potentially choose the design depending on the lameness lesion (quick or slow healing?).



## Lameness recovery rates following treatment of dairy cattle with claw horn lameness in the Waikato region of New Zealand

NZVJ Sep 2023 Mason *et al*

A recent study in the September NZVJ by Mason *et al* examined how long cows were lame for after trimming and application of a hoof block. 241 cows with a Lameness Score of 2 or 3 from claw horn lesions on 5 Waikato farms were treated, and subsequently re-assessed every 4 days or so. They were then designated sound (locomotion score 0) or non-lame (LS <2).

White line was the major source of the pain – 93% of animals – and blocks were applied to 85% of cows. The median time taken to become non-lame was 7 days, and to become sound 18 days.

This rapid cure rate underlines the importance of best practice treatment guidelines including hoof blocks. It was notably quick relative to other studies, especially compared to housed cows. So, interestingly the management of lame cows on pasture may have helped; the cows were kept in a lame mob near the shed and milked OAD. This maximized their time on pasture and minimized it on hard surfaces such as tracks and yards.

## Animal- and herd-level factors associated with onset of puberty in grazing dairy heifers.

NZVJ Steel *et al*

A 3<sup>rd</sup> fascinating article in September's NZVJ was conducted by Steele *et al*: Animal- and herd-level factors associated with onset of puberty in grazing dairy heifers.

5000 heifers (2018 born) were visited at a herd average age of 10, 11 and 12 months. Liveweight, stature, ano-genital distance were measured and blood samples taken to measure progesterone. Puberty was reached on the visit when progesterone was elevated ( $\geq 1$  ng/mL).

The average age of puberty was 352 days, but the % of the mob varied widely between herds. The average proportion of pubertal heifers at the 3 visits was 20%, 39% and 56%. Only around half of heifers hit puberty at 12 months!

The greatest influence was liveweight. The heavier an animal, and the greater proportion of mature weight, the more likely she was to reach puberty.

Breed also had a big impact; Jersey genetics were very helpful.

Land type was a relevant factor, so steep farms with Holstein breeding had lower puberty rates.

Other factors included vaccinations, feed supplementation and weighing frequency were also influential, but lower impact.

This underlines the importance of managing youngstock, especially feeding and weighing to reach liveweight targets.

# Mating Time Checklist

## Mineral balance

Although a mineral deficiency can be a soft target to focus on (it's easy), we do still see deficiencies putting a brake on the system, or even occasionally toxic levels. Blood samples or liver biopsies can be taken pre-mating. Traditionally we look at B12, Copper, Selenium, but I am more often adding in BOH (or energy / ketosis) and Iodine levels as well.

## Ketosis

This is known as the Gateway Disease, because it leads to many other problems such as metritis or LDAs. If a cow is in negative energy balance (because she is producing lots of milk but is not taking in enough energy) she will mobilize her fat reserves, which releases ketone bodies. These are a short term energy source which frustratingly cause reduced milk yield, inappetance, metritis... We can quickly check for this with some blood samples, which will give some insight into feed management

## Tailpaint

This needs to go on a month before planned start of mating (PSM) so any non-cyclers can be addressed early for maximal return on investment.

### Heat detection

Collars make this job a lot easier, but tailpaint / stickers are still the mainstay. Are your team confident on heat detection? Are responsibilities clear? How is tailpaint checked – it is very hard to see clearly from the bottom of the pit! Do staff have apps to see if the cow was on heat 3 weeks ago? Is the drafting gate working well?

## Lameness

Any painful, inflammatory condition can interfere with reproductive success, lameness is a double whammy because they also lose weight and don't show oestrus behaviour. Minimizing lameness revolves around good old fashioned husbandry – let the cows walk at their own pace, ensure they have plenty of room in the yard, and treat any lameness promptly. Recent research shows the importance of using blocks and anti-inflammatories for lame cows.

## Mastitis NSAIDs

Another example of where administering pain relief will actually have significant benefits in terms of improved reproductive success.

## Metrichecking

Cows with metritis have both a lower chance of cycling and a lower chance of getting in calf. Metrichecking will detect these girls so we can clean them out with a nil milk WH product. However, the earlier we metricheck, the better the detection. Some options include:

- Metricheck an early mob 2-5 weeks after calving, and then a late mob
- Metricheck all of them pre-mating
- Metricheck the At-risk cows (RFMs, milk fever, hard calving, ketosis) early then all of them pre-mating

## BCS

The other thing to monitor is condition score. We aim to limit the BCS drop over peak lactation to 1 unit. The critical time points for BCS check are pre-mating, summer, drying off and pre-calving. We can help provide an unbiased assessment and individualized report for you. Heifers should be weighed to check they will hit liveweight targets for puberty.

## Bulls

Like all these points, this topic can fill textbooks!

- Ensure they are tested for BVD and have had their annual booster
- Choose easy-calving lines for heifers
- Keep bulls off the yard to minimize lameness
- Consider having a larger number of bulls in a day mob and a night mob instead of rotating

## BVD

This virus still keeps popping up and causing low conception rates, abortions, sick calves, mastitis... even in closed herds.

- Monitor bulk milk virus and antibody levels – this can be ordered through us or the LIC program.
- Vaccinate stock grazing away with other mobs to avoid bringing the virus back
- Blood test and vaccinate any bought-in stock
- Calves can be tested with the DNA ear punch

## Non-cyclers

Ideally with perfect health and pasture growth, you won't have any non-cyclers. However, if you do, we do have a suite of programs. The best Return on Investment is to do any intervention early. Options range from PG shots to progesterone programs with eCG, which we can tailor to your farm. The late-calving treadmill is hard to get off.

# BENEFITS OF SYNCHRONISING HEIFERS

Fast-forward your genetic gain



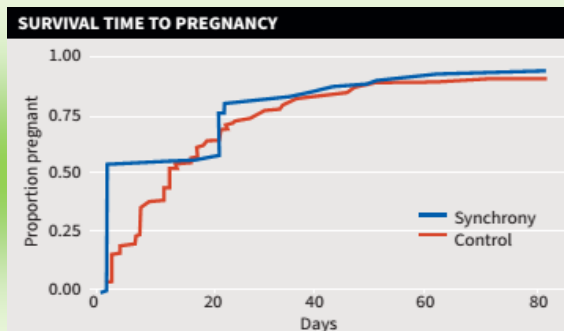
## Synchronise heifers for more milk, faster

Genomic selection. Speed-breeding. DNA screening. Call it what you will, modern biotechnology has given us the ability to breed better animals, faster, in ways that would have seemed beyond our reach only a generation ago.

This spring, there's another proven way to accelerate genetic gain in your dairy herd, with lasting benefits across the board – compact calving, more days in milk, additional AB calves, and a reduction in on-farm emissions intensity.

### SUPERIOR PERFORMANCE

*A large-scale, NZ research study conformed that heifers synchronised with the DIB Co-Synch program in their first mating had fewer empty heifers and earlier conception. A separate NZ case study demonstrated heifers that were synchronised in their first mating period had a tight calving spread, and better reproductive outcomes during the next mating period as fast-lactation cows.*



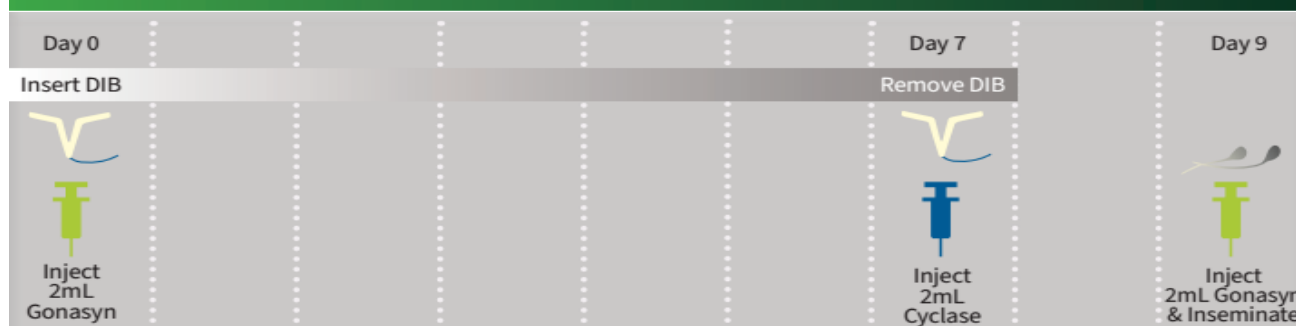
## What is it? Synchronising heifers.

There are several good reasons to consider heifer synchrony before finalising mating plans for this season:

- Synchrony programs are generally very successful in New Zealand dairy heifers, so are becoming increasingly more common.
- Synchronised heifers can be mated using fixed time AI, without the need for heat detection, and inseminated just before the main herd mating starts.
- More heifers calve early next spring, so they can get into the milking routine ahead of their older herd-mates.
- Heifers will then have more time to get ready for their second mating, as synchronising means they calve 10 days earlier on average. Early calving heifers become early calving second calvers. Remember first calvers take longer to cycle than mature cows, and it's so important to get those valuable 2-year-olds back in calf.
- Over half of synchronised heifers calve within the first week of calving, so you'll get 10 more days in milk per heifer treated, which equals more income.
- And – critically - synchronised heifers mated to AI will mean more AB heifer calves next spring. Your heifers are generally the highest BW animals in your herd, and their daughters give you more choice and opportunity, whether you're trying to grow herd size, cull more selectively, sell more AB calves or minimise bought-in replacements for better biosecurity.
- Accelerated genetic gain, earlier calving and more milk all contribute to improved animal efficiency and a reduction in on-farm emissions intensity (emissions/kgMS), meeting the expectations of our global dairy customers.

Success comes down to having well-grown animals, in good body condition, and (as always!) a good plan. We can help you with that – enquire about booking your heifer synchrony programme today, and we'll give you all the information you need.

## DIB Co-Synch program timer



# Coccidiosis

Coccidia is a serious cause of scours, weight loss and lost performance we commonly see in calves from 6 weeks to 6 months of age. It was a surprise for us to recently diagnose it in adult milking cattle, which reminds us of the analogy “when you hear hoof beats think horses” however Zebras do exist. Generally coccidiosis is associated with times of stress (weaning, poor weather, worms etc.) or high disease challenge (going into paddocks/pens previously contaminated with coccidia). Once a calf is exposed to coccidian it takes roughly 3 weeks till it can start showing disease or producing more coccidia in the faeces. Once in the environment coccidia can survive for over a year, therefore preventative management is essential.

Preventative management is underpinned by:

- Reducing the exposure to coccidia (clean bedding, moving calves regularly and changing calf paddocks on an annual basis if possible)
- Preventative meal treatments (monensin, lasalocid acid) are used in all calf meals however most are only fully effective if the calf is eating 1kg of meal / calf / day
- Preventative drenches are available to treat and prevent coccidia such as Baycox, or as a combination worm and coccidia drench such as Turbo initial. Speak to your vet about which products may be best suited to your animals.
- If you are concerned about coccidia causing scours or poor growth rates in your calves then faecal samples can be submitted to the clinic for analysis or a veterinary visit arranged to confirm the diagnosis or explore other factors limiting production or causing disease.



## AG DAY LAMBS

To support our local schools, Cambridge Vets will supply 5-in-1 vaccinations free for Ag Day lambs.

We hope you have a great time with your Ag. day animal, you can find more information on rearing lambs at our website:

<https://www.cambridgevets.co.nz/farm-animal-services/lifestyle-blocks-3/>



An advertisement for Eprinex. It features a black travel bag with 'ALL BLACKS' branding and a pair of boots on a wooden deck. The text 'Eprinex LET'S GO!' is prominently displayed. Below the bag is a QR code and the text 'Scan here to calculate the R.O.I. on your herd...'. To the right is a box of Eprinex Pour-on 1.5g Ivermectin. At the bottom, it says 'Never miss a match with this ultimate All Blacks travel bag and cushion set yours with selected EPRINEX this season!' and 'Promo ends 30th September 2023. Ask in clinic for qualifying products.'



future producers  
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