Gateway Gazette

Dairy Newsletter.

Issue 57 | November 2021

Now we are in the midst of mating and the grass is finally arriving we can look back on the season to date. It has been a tough period from the floods but it shows you how resilient our farming community is, dealing with the weather and all the other challenges outside of the farm gate. The team at Gateway Vets have enjoyed the spring and enjoyed welcoming team Rachel! Raechel Parker has returned to Gateway after a few months exploring New Zealand and working in the Maniototo, and we welcome Rachel McLeod – our Canadian new graduate vet who recently joined us from Glasgow! We also welcome Charles Burgess who's just joined our team after vetting for a couple of years in the rolling hills of Ireland.

Inform and Improve with Infovet

Jennifer Ross BVSc

Gateway Vets is pleased to announce an addition to our services this year. Infovet is an information portal and data collation service that has been specifically designed for NZ dairy vets to use with their clients.

It is a unique software programme that securely collates dairy herd health and production information, enabling us to broaden our dairy consultation service.

With the farm owners' permission, we have secure access to information collated from LIC, Fonterra, Oceania Dairy, Synlait and Westland Milk Products as well as animal health purchases from the clinic system, lab results and records entered into the system on farm.

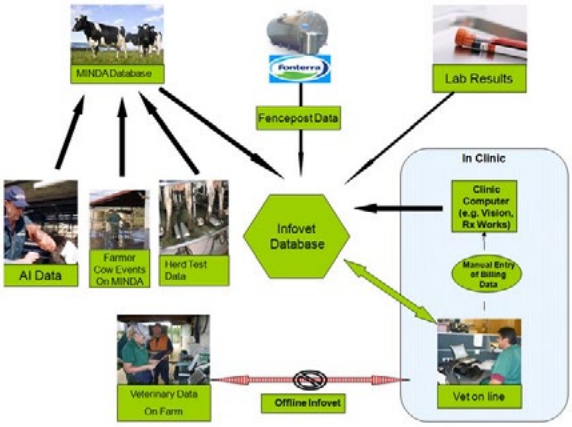
It also provides a platform for vets to record information on farm for pregnancy diagnosis, body condition scoring, tail scoring, non-cycling cow recording and other health related events such as lameness on farm. This data can be immediately analysed in the shed, providing extra value to our routine visits. Mobs can be broken down into different groups for various key performance indicators s eg 6 week in calf rate in heifers vs CIDR cows.

Infovet allows us to analyse important areas of the dairy business including reproduction, milk quality and mastitis, which we can then use to review farm performance and plan for the coming season, adding value and aiding us in improving farm production and profitability.

Reproductive and mastitis benchmarking provides us with the ability to benchmark the performance of our clients farms against each other; local bench marking means farms are being compared with "like" in terms of soil types, weather patterns and advice from the same vet clinic!

Please help us out by getting your signed forms back to us if you haven't already!

infovet
information management for veterinarians



Controlling Coccidiosis in Calves

Coccidia are small parasites which infect the cells of the gut lining. Disease is most commonly seen in 3 – 6 months of age, but can be seen as young as 4w. The eggs will only survive a few weeks when hot and dry but can survive up to 2 years in warm, moist conditions – this can be very frustrating when it comes to calf sheds and paddocks!

Nutritional, climatic or management stresses increase risk, as does concurrent disease such as BVD. Overstocking and using the same calf paddocks year on year pose a particularly high risk, and we are seeing more coccidiosis with environmental conditions favouring survival of oocytes on pasture.

The good news is that immunity should be established between 6 – 8 months of age, and is boosted by natural exposure.

Clinical Coccidiosis

Severe gut damage → **smelly grey diarrhoea**, sometimes containing blood.

If left untreated → rapid deterioration → dehydration and blood loss → **death**

Subclinical Coccidiosis

Milder gut damage → reduced feed intakes and absorption of nutrients → ill-thrift and **poor weight gains**.

Calves look **rough coated** and generally **run down**.

If some calves are showing signs of **clinical coccidiosis**, the rest will be suffering degree of **subclinical coccidiosis**.

Diagnosis

Diagnosis is usually based on grazing history, age of calves and signs. It can be seen on faecal egg counts, but this isn't always reliable. Post-mortem is great, but we'd prefer it not to get to that stage!

A word on coccidiostats

Coccidiostats stop **coccidia from reproducing**; they can be used to prevent and to treat coccidiosis. Most calf meals contain coccidiostats, designed to tie you over the weaning risk period – just make sure you keep feeding meal for long enough on the other side of weaning.

Pinch points vary between farms; if you get issues before weaning **coccidiostats can also be included in the milk** and, depending on the product, may be given alongside medicated calf meal. Options are available for both milk powder and whole milk feeding.

Don't rule out coccidiosis just because you're using coccidiostats, they're very effective but don't kill the coccidia and are relying on daily dosing which is not foolproof!

gateway vets

Philip Skinner BVSc • Robyn Skinner B
Raechel Parker BVSc

Other Prevention Methods

- ✓ Optimise calf health: ensure good **colostrum, nutrition, parasite and disease control**.
- ✓ **Minimise stress**
- ✓ **Rotate** calves around paddocks and keep stocking densities as low as possible
- ✓ Use a product while **kills** the coccidian eg Turbo Initial or Baycox

Turbo Initial is a drench while **kills worms and coccidia**; a great all-in-one treatment for those first couple of worming events. It's the first product in a 3-part Alleva drench series designed to simplify your drenching protocol.

Baycox is a drench which will just **kill coccidia** in the face of an outbreak

The Take Home

Once calves are scouring severe gut damage has already occurred [Figure 1] and despite treatment will takes weeks to resolve, leading to a **sustained period of very poor weight gain**. Sometimes the gut damage is irreversible, permanently reducing the gut surface area available for nutrient absorption and resulting in big production losses.

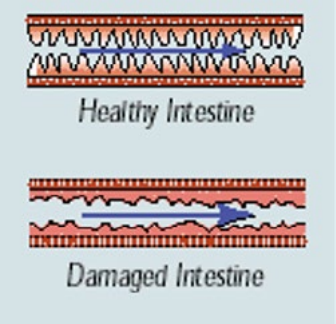


Figure 1: Healthy intestine with large surface area available for absorption of nutrients vs cocci damaged gut with reduced surface area

Coccidiosis is often just seen as a cause of scour, but should be seen as **a disease of production** before anything else; if your calves 'just aren't doing' then have cocci up there on the list! If using coccidiostats then subclinical coccidiosis is much more common than clinical disease.

Summary

- ✓ Try and beat coccidiosis before it beats you; if calves are scouring it's pipped you to the post
- ✓ Coccidiosis and it's management is all the health of the calf vs the amount of coccidiosis in the environment, known as the infection pressure.
- ✓ If you optimise your calf health, use coccidiostats and do your best to reduce that infection pressure then you should be onto a winner.

Make Mating Moooove

Author

There are several targets for the mating period that exist in order to create a tight calving spread; maximising days in milk in the next lactation, and increasing the chances of cows conceiving early in the mating period. We all know how hard it is to get cows back in calf – a complex balance of nutrition, health and timing.

THE TARGETS

Pre-Mating Heat Detection

- Monitoring pre-mating heats allows you to
  - Identify cyclers and non-cyclers before PSM
  - Asses herd performance and adjust feed accordingly
- Non-cyclers can be treated (eg CIDRs) before PSM to optimise their chances of cycling in the first round of AI
- Cycling cows can be entered into a Why Wait Program, which will allow cows who cycle in the week prior to PSM to cycle again at an interval shorter than 21 days
- The industry target is to have 85% of all cows cycling in the 3-4 weeks before PSM. This is difficult to achieve with a large proportion of late calvers.

The conception rate is higher for the second heat post calving, so cows who have pre-mating heats have a higher chance of getting in calf in the first round of AI.

Three Week Submission Rate

- Industry target: 90%
- This target is focused on making the target 6 week ICR achievable For a 1000 cow herd, 900 animals must be submitted in 21 days; an average of 43 cows every day for three weeks
- You can estimate your projected submission rate after 7 days, and use this estimate to make a plan for non-cyclers
- Using CIDRs in your youngest and most valuable animals at this stage will help improve 3 week submission rates

Good submission rates rely on good cow cyclicity alongside good heat detection

Six week in calf rate

- Industry Target: 78%
- This is a function of the target 3 week submission rate and conception rate
- Essential for maintaining a tight calving spread, it gives the majority of the herd a 6-12 week recovery period between calving and PSM, giving cows a chance to get cycling again in time.

The chance of a cow getting back in calf in the first 6 weeks of mating decreases by 10% with every 3 weeks closer to PSM she calves.

Hitting The Targets

Achieving these targets is a long term goal, but some small changes can cause big improvements. The first step in improving figures is to know your figures in the first place. Good recording of heats, matings, aged scanning, and calving dates will build up a picture of current herd performance. Using this data we can plan for the upcoming season, for example feed allocation for early and late calvers, and use the historical data to identify areas for improvement in the next mating season. Infovet will make this a lot easier too!

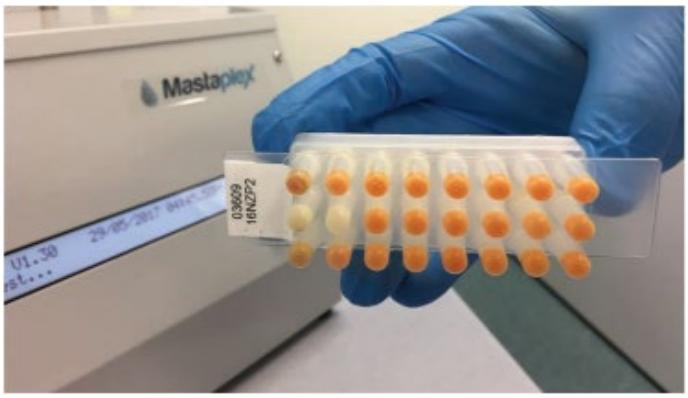
Ph: 03 693 9060 | Fax. 03 693 9065 | Email. clinic@gatewayvets.co.nz
5 Woodbury Road, R D 21, Geraldine 7991, New Zealand | Open Monday to Friday 8am-5pm, Closed Saturday & Sunday

Managing Mastitis with Mastatest

Amy Edwards BVSc

Have you ever found yourself staring at the drug cupboard not sure which mastitis tube to reach for? Or about to start a third course of tubes wondering if this time will do the trick? An unfortunately common scenario, even as vets it can be tricky to know which drug to reach for in an individual case. To date, antibiogram tests have helped narrow down the options at herd level whilst milk cultures have been the main stay for bacterial identification and antibiotic sensitivity. Whilst milk cultures remain gold standard there is now a third system available, the Mastatest, which provides cow side results within 24 hours.

Mastatest has been developed here in New Zealand to help meet the increasing demands on the industry to use antibiotics sustainably and to help you pick the right drug first time. How does it work? You add your mastitis milk sample to a test cartridge, place it into the Mastatest lapbox, enter the cow number and quarter, then set and forget. The box is effectively an incubator with a camera below, which sends a series of images to Otago University, via an internet connection. As the test progresses over 24 hours a colour change occurs within the wells of the strip. Six of the wells correlate to which bacteria is present, the rest of the strip is filled with increasing concentrations of three different antibiotics. The antibiotic which inhibits the growth at the lowest concentration – the minimum inhibitory concentration MIC – is reported as the treatment of choice. Four clinical mastitis samples can be run through the box at a time and the start times can be staggered. After 24 hours the results are reported back to the farmer and vet by email, as well as on an internet dashboard so you can see trends over time.



The advantages of Mastatest are a speedier turnaround time, an individual diagnosis and a unique treatment recommendation which does not rely on test interpretation on farm. In cows who are well in themselves, we recommend administering a Ketomax dose when you take the sample and holding off on antibiotics until you have your result. Treatment outcomes have been shown to be just as good if you wait, with no negative impact on case resolution. This allows for some animals – up to 20% nationally, to be reported as no growth suggesting an inflammatory but not infectious cause of milk changes. If you have, for example, a staff member who treats many cows who look better by day two it may be that they only needed some anti-inflammatory to get them to come right. This keeps girls out of the peno mob and more milk in the vat and is one way the Mastatest starts to pay for itself. Other savings come from reducing the need for re-treatments, avoiding frustrating three week stays in the peno mob whilst you try course after course of tubes, and by identifying

potential Staph. aureus cows early so you can make informed decisions about their future in the herd.

This season, with increasing incentives around SCC from dairy companies, a new cartridge has been launched to test non clinical, high somatic cell count milk. The idea being you can run milk from your high cell count girls after a herd test to see which bacteria are present. These strips do not contain any antibiotic so have been designed to test two samples per cartridge reducing the cost per test. The test is more sensitive and so better at picking up sub clinical cases, including low shedding chronic Staph. aureus cows who pose a risk to the rest of your herd.

From a clinic perspective here at Gateway we have several farms who were early adopters of the technology. Each had a different motivation behind the decision to go ahead depending on their mastitis history. Feedback has been positive from those running Spring calving, outdoor systems regardless of the number of mastitis cases they see. However, we have learnt that the box might be of

less value to those who have a high prevalence of E. coli mastitis. On these farms you still benefit from the bacterial identification but E. coli is often resistant to antibiotics so the treatment recommendations are more limited. If you think a Mastatest box might help you tackle mastitis treatment or support your efforts to reduce your somatic cell counts please get in touch so we can advise you on a farm by farm basis.

Mastatest