

The Who, What, Where and How of Endometritis and Metrichecking

By David Dymock, Veterinarian, Anexa FVC Rotorua

What is Endometritis?

Endometritis is relatively common infection of the uterus following calving. We often term cows with endometritis 'Dirty Cows'. 'Dirty Cows' do not show any signs of being sick and they often look like normal healthy cows. We can identify the 'Dirty Cows' by using a quick, cost effective and simple method called metrichecking.

Who gets endometritis?

As a rule, 'At Risk Cows' that have had retained foetal membranes (RFM), twins, milk fever, an assisted calving and/or a dead calf, are more likely to be 'Dirty Cows'. However, when whole herds are metrichecked, up to 71% of cows that were metricheck positive, were considered 'Not at Risk'. Unfortunately, we still don't know all the causes for endometritis but once identified they should be treated due to the negative effects on reproduction. The whole herd prevalence of metricheck positive cows can vary greatly, with some herds only have a few positive cows and others having between 25 to 50% of the herd metricheck positive. In a recent study of 100 New Zealand herds, the average metricheck positive cow prevalence was reported to be 25%.

Why do we care about endometritis?

Endometritis results in lower conception and 6-week in calf rates, higher empty rates of up to 30% and if they do get pregnant it can take 2 to 3 weeks longer than cows without endometritis. There is a positive return on investment to whole herd metrichecking when there are more than 2% of dirty cows, which is probably >95% of herds in New Zealand.

When to detect and treat endometritis?

Traditionally we have metrichecked the whole herd in one go, at least 35 days before the start of mating, to give the treated cows time to cure before mating starts. But a recent New Zealand study showed that if you metricheck in batches starting 2 to 4 weeks following calving, it gave a 9.6% improvement in the 6-week in-calf-rate and a 3% higher 12-week in-calf-rate, compared to late treated cows i.e. cows treated a month prior to mating. So, there are some real positive benefits for identifying and treating cows early.

How do we treat endometritis?

The most common treatment is with an intrauterine infusion of antibiotics that has a nil milk withholding. So, talk to your Vet about your plan for metrichecking this year, as there are some real positive reproductive and financial benefits of identifying and treating 'Dirty Cows' early.

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What will you do about bulls?

By Margaret Perry, Veterinarian, Anexa FVC Te Aroha

Calving is upon us, but it's time to start thinking about your herd and heifers spring mating. Over the past months we have received the same question from farmers; what are we going to do about bulls this season? Animal movements are one of the key risk factors for the introduction of *Mycoplasma bovis* in dairy and beef farms. Most farms we service either purchase or lease bulls for a portion of their mating period. *Mycoplasma* can be spread through infected semen during natural mating, so the risk is real.

There are a number of things you can do to reduce the risk of introduction of *M. Bovis* via bulls to your herd.

When buying bulls, you need to do your homework.

Firstly you need a **full history of any bulls** to be purchased including their electronic identification numbers, NAIT locations for all movements of these animals, and disease history for the herds and grazing blocks from which these animals have been purchased.

Purchasing bulls from a closed beef farm, particularly beef units that use AB rather than natural service bulls for mating may reduce the risk of infection substantially.

Risk is increased where bulls are purchased from sales yards or youngstock units where animals from multiple sources are reared together, particularly where waste milk has been purchased to rear these bulls. **Non-virgin bulls also carry a higher risk**, as they have been used previously on other farms before coming to your property.

Testing is available but there are severe limitations around the test. A positive bull may not be shedding the bacterium at the time of testing, so no test can prove freedom from disease. **Testing should only be done at the mob/herd level** and is not recommended once the bulls are dispatched to the farms.

The lowest risk bulls are from single 'closed' herds with minimal history of lameness, mastitis or calthood disease. As per our normal recommendations, virgin bulls are best and BVD status must be known from a negative blood test result and vaccination is crucial.

On arrival the bulls should be held separately from the main herd for a **minimum of seven days**, during that time you should assess the health and lameness status of the bull before mixing with the herd. If you have any concerns about the bulls, contact your Vet.

The time to source low risk bulls is now. If you would like to discuss other options for reducing the length of natural mating and therefore bull numbers on your farm, or the use of AB semen alone for mating; make sure to **book in a pre-mating meeting**. It's not too early to have these discussions.

Calf calamities – When Disease Strikes

By Hanneke Officer, Veterinarian, Anexa FVC Rototuna

With the seasonality of dairy farming in New Zealand, calf sheds get overrun for a couple of months of the year and then stand empty. In a small amount of time, many calves pass through, all leaving their excrement behind. No wonder the calves get sick, right?

Not necessarily, some big calf operations deal with limited to no calf disease. So what can you do to prevent it?

- Colostrum management - as mentioned in our previous newsletters, this is the most important prevention tool you have against calf disease.
- Hygiene/biosecurity - this is relevant to bedding (spraying as well as topping up), calf feeders, your clothing/boots and other equipment used with the calves.
- Nutrition - providing calves with enough food and fresh water to manage requirements for both maintenance and growth.
- All-in-all-out system - once a pen is full, no new calves get added or swapped.
- Housing - don't overstock and check for draughts and the smell of ammonia.

What are the most important factors around the risk of sick calves?

Spread of infection:

- ✓ Isolate calves as soon as possible to a designated 'sick calf' pen
- ✓ Feed and treat them last
- ✓ Scrub with disinfectant before and after, and/or have separate gear (gumboots, overalls, thermometers, gloves, feeders etc)
- ✓ Sick calves should not go back into their original pen; they might seem better, but they can still be shedding bugs

Treatment of illness:

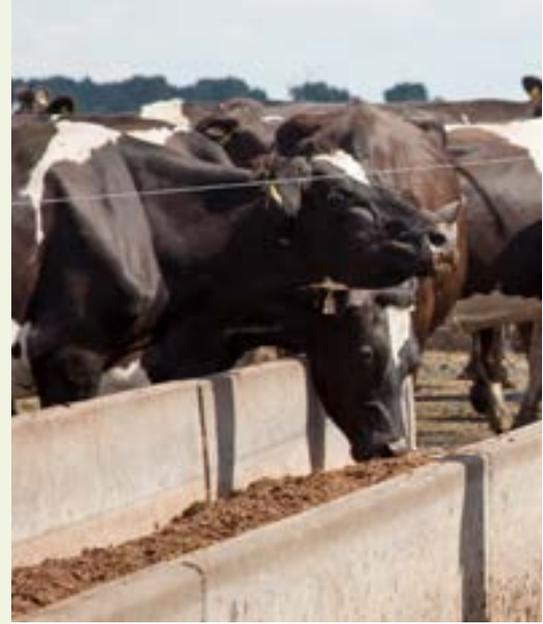
- ✓ What are you dealing with? The most common conditions are scours, lung infection, bloat and navel/joint ill.
- ✓ If you're not sure what to use, call your Vet. Ideally you should have a protocol in place so you know which treatment is best used.
- ✓ Remember for scours, dehydration is the biggest killer, so electrolytes and fluids are vital. Don't forget though, milk is necessary for nutrients. We have plenty of scour protocols available to you at Anexa FVC, so make sure to ask us even if it's just in case. Being prepared is half the job.
- ✓ Be familiar with the different types of treatment and have some on hand including electrolytes, anti-inflammatories and antibiotics.
- ✓ Check with your calf rearers; are they confident treating calves? Specific farm training can be organised if upskilling is needed or wanted.
- ✓ Don't forget the impact of hypothermia (cold); sick calves don't eat/drink as much and therefore often haven't got enough energy to maintain their core body temperature. Bedding and calf covers can make a big difference.

Prevention - to reduce morbidity (number of animals affected) and prevent issues in the future, it's important to identify the cause:

- ✓ Scour samples - the pathogen can be cultured from scour samples, which helps to create a more specific treatment regime, but can also help to set up a prevention strategy through for example vaccination or feed/milk additives.
- ✓ For illnesses other than scours, there might be housing or management factors that need a risk assessment and adjustment.

REMEMBER above all, calves are born without immunity and rely heavily on adequate colostrum management. This is a vital step in disease prevention. Purchase a BRIX refractometer at your local ANEXA FVC clinic to test the quality of the colostrum on your farm, and endeavour to feed each calf colostrum within the first 12 hours of life.

Aside from that, your local Anexa FVC Vet has a lot of information to help you reduce disease prevalence and optimise the rearing of your future dairy cows. Don't be afraid to ask. Too often we see young stock that are under performing.



Are your cows trying to tell you something?

Early lactation cows normally get to the feed pad by batt-latch at 4:30am, and when staff arrive at the shed to let them on the yard, the feed on the pad is finished. One day the feed wasn't finished. When the cows were let onto the milking yard that afternoon, the owner noticed that the cows were a bit foot sore. Nothing had changed on farm including feed levels, grass or people). The only thing was it had rained a lot recently. The owner then inspected the races and couldn't see too much of concern. They then watched the cows leave the shed, and the cows stopped at a point a few metres down the race and waited. When they eventually moved on, they were very cautious walking over that section of race. The owner went and inspected that section of race again and realised that for cows with soft feet from the recent wet weather, this section of race was too uneven. It was due to be fixed anyway but the weather hadn't allowed it. Sure enough, once that section of race was resurfaced, despite the cows still having soft feet, the cow flow from the shed improved 100% and of course the next morning at 4:55am the pad was licked clean again; the cows got to the pad in time to eat, instead of stopping at the rough spot and not wanting to move on!

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Do you manage your Downer cows well?

By Caroline Hamilton, Veterinarian, Anexa FVC Huntly

Now you are busy with multiple mobs, multiple jobs plus milking and calves, the “down cow” can be easily neglected. We know that down cows that are looked after well are more likely to get up and have a successful lactation, so for a late season downer make sure you have a plan. Assigning one person the responsibility of looking after the down cow may be a good start.



1) Primary carer

Who is going to be in charge of nursing the downers? From experience of visiting multiple downers it is much better if one person is in charge rather than a loose arrangement of multiple people possibly getting to do it at some stage in their day. One primary carer gets much better continuity of treatment and a better ability to notice changes particularly important to being able to access if there is no improvement or rapid deterioration demonstrating the cow needs to be euthanised. Good downer cow nursing takes time and the primary carer needs to have enough time to do a proper job.

2) Downer pad

Have a pre-organised downer pad set up which you can take the cow to in the tractor tray. Ideally this is a deep bed of well-draining material such as sand, shavings or large wood chips in a dry well draining barn. The softness of these pads can drastically reduce the onset of pressure necrosis compared to a grass paddock. If you cannot move her from the paddock, then put down the same well-draining material beside her and lift her onto this.

3) Hip clamps and Slings

In a very short period after going down pressure on the lower body results in a decreased circulation to these tissues resulting in hypoxia or a lack of oxygen at cell level and cell death starts. This is often very rapid if the cause the cow is down with initially makes her completely unable to move or shift her position.

Early correction of lateral recumbence is essential, which if left it can result in regurgitation and aspiration of stomach contents. Also, rapid depletion of energy as cow continuously paddle their legs trying to get up. Place the cow in the dog sitting position so no limbs are under the body. Have something like hay or silage bales ready to use to keep the cow propped up in this position. Regularly check her to ensure she is not sitting on a limb.

Early and regular lifting through the day is often a make or break component to getting a cow back on her feet. Often lifting is required to be able to diagnose what the problem is so if you can have the tractor and lifting equipment there when the Vet turns up is always good.

A lot of you will be using hip lifters (cost approx. \$270) to lift your downers but I would encourage you to look at purchasing a cow sling (cost approx. \$400) which have multiple advantages over hip lifters and will last several seasons. Older hip lifter models that don't have cushioning should not be used.

4) Cow cover

If you don't have a barn as an option, use a cow cover (cost is approximately \$350), or failing that, a large tarp that can be put over the cow in the paddock. Emergency thermal blankets used under the cow cover or tarp (cost approx. \$5) are good to use too. Being warm and dry also means far less energy is needed to expend on keeping warm and being hypothermic drastically decreases a cows chance of getting up. Many downer cows that we have been called to are so cold, their temperature is so low it won't register on a thermometer.

5) Medical kit

Early diagnosis of the cause of a cow going down and early remedial treatment is essential. If there is no rapid response or you are unsure of the diagnosis and/or treatment, then call your Vet out EARLY. We are far more likely to make a difference initially rather than when she has been down for four days. Also, it may be the condition she has will mean she will never get up and if this is diagnosed early on, then the cow can be euthanised humanly and the cost of treatment and time spent nursing is not spent unnecessarily.

Rapid early treatment, particularly with Metabolic's and Mastitis Downer's, is often pivotal. Get your downer kit ready, and if you use something, restock with a Farmacy order. You should have a range of Flexi metabolic bags, some drenchable sugars such as Acetol or Ketol plus, anti-inflammatory and antibiotics. We know of several cases where cows have died of milk fever because the farmer didn't know how to give IV injections and/or didn't have any Calcium on farm. We can train you or your workers on how to safely give IV injections to cows.

6) 24/7 drinking water access from large suitable container

Dairy cows drink around 70 litres of water per day. A large portion of downer cows we see are dehydrated as they do not receive enough water to meet their needs. Often I see a 20 litre bucket on its side beside the cow, it may have had a drink, but this does not give it continuous access and usually not nearly enough. There are lots of good cost-effective cow side drinking troughs available, they can't be tipped and hold all a cow requires for a 24-hour period.

7) Adequate food

Often the downer goes down in a paddock that has been eaten out, if you don't have a downer pad then try to get her to a paddock with lots of grass in it. High producing cows are usually on a diet which include lots of supplements be it silage, PK, meal or maize. If they just get grass only to eat they often can't get enough to fill their maintenance energy needs, so providing extra cow side supplementary food is also essential. We advise this even if they are on just a grass-based system, as often a cow cannot move to get enough grass when down.

Do you remember the Upper Cow Seminar we held in 2016 that shared information on how to care for down cows?

Watch videos on [youtube.com](https://www.youtube.com) for tips and tricks to move, lift, roll, and care for your down cow.

search **down cow DairyAustralia**

or check out the down cow info on the **Dairy NZ** website <https://bit.ly/2LruNqd>



Clinical mastitis during calving – eyes on the ball

Irrespective of how well drying off goes, most herds have some level of clinical mastitis to deal with during the calving period. An individual animal may have been treated with dry cow therapy, or a teat sealant, or combo therapy, but these approaches only lower the risk of a new clinical infection – they do not eliminate it all together. As we enter the busy time of spring calving, it is worth taking a moment to remind ourselves of some of the mastitis control strategies that are useful at this time.

Reduce the chance of teat contact with mud as best you can. New clinical mastitis infections, through environmental bacteria, is a numbers game. The more mud and faecal material on the teat surface, for any reason, the greater the probability that a new infection can be established by the likes of *Strep uberis* and *E coli*. Of course, it is a case of balancing competing forces as springer/transition cows are run on tight pasture breaks leading up to calving and this may increase the risk of teat soiling. However, there is very sound evidence that the dirtier the udders and teats appear during the transition period, the higher the new infection risk so use the visual clues here when milking freshly calved cows to gauge your risk.

Monitor the number of new clinical cases against the trigger level. Smart SMM has recommended that, during the transition period (2 weeks prior to calving and 2 weeks after calving for an individual cow) the trigger point for action should be no greater than 8 clinical cases/100 cow calved/month. Again, with calving cows and managing calves, it is difficult to find time during the calving period to sit down and assess the animal health treatments you are recording, but in this case, it is worthwhile. If the number of new clinical mastitis infections is approaching, or greater than this trigger, it is well worthwhile asking your vet to assist you in exploring the causes further so action to reduce risk can be considered. Recall that every clinical case is worth around \$250 to the dairy business so there is plenty of financial incentive to monitor, assess and take action if required.

Take a milk sample immediately prior to inserting lactating cow treatment. If you find a new case for treatment, the teat must be disinfected prior to inserting the treatment tube so why not take a sterile milk sample for freezing as an insurance policy. If, in a number of weeks, the clinical case rate has risen above the trigger level, these frozen samples stored on farm will be invaluable in making sure that the mastitis bugs we think we are dealing with prove to be the ones actually causing the infection. This is an insurance against addressing an increase in new infection rate adequately and using appropriate treatment.

Get a table together with your neighbours or bring your farm team along for a good social night before the mating season begins.

With a mix of general knowledge and reproduction questions, bonus rounds and spot prizes, it won't just be fun but you could gain some knowledge that might make this mating season the best one yet!

One event, two locations

Wednesday 5th September, 6.30pm - 9.30pm, Morrinsville RSA, 27 Studholme Street

Tuesday 11th September, 6.30pm - 9.30pm, Hauraki Golf Club, Cnr SH2 and SH27

RSVP by 29th August at www.anexafvc.co.nz/events



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Rototuna
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Te Aroha
P: 07 884 8014

Te Kauwhata
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NEW Animal Welfare Rules

New animal welfare rules are coming into force on the 1st of October this year. Some of these might require you to change the way you farm. The changes that are important for dairy farmers are:

No tail docking of cows at all, no dehorning without local anaesthetic (disbudding calves without anaesthetic is still allowed for another year,) and no pulling of stuck calves at calving with any kind of vehicle. There has also been a tightening of the rules around transporting and certification, to the point that if your animal is abnormal in any way you should at least talk to your Vet before transporting it.

A summary of the latest changes can be found at: <https://bit.ly/2v8OpnM>

The complete codes of welfare can be found at: <https://bit.ly/1X87jFT>

If you have further questions, ask your Vet, we are here to help.



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UPCOMING MEMBER EVENTS

Advanced Notice of the 79th Annual General Meeting

As a member of Animal Health Centre Waikato Incorporated, known as Anexa FVC, members are eligible to nominate themselves or another member to become a Director of the practice. There are two director positions up for re-election this year. All members have been sent a nomination form via post. For more information about nominations please contact your local Anexa FVC clinic.

Animal Health Centre Waikato Incorporated AGM will be held: **Wednesday 26th September 2018 commencing at 11.30am in the David Gray Seminar Room, Anexa FVC, 25 Moorhouse Street, Morrinsville**

QUIZ

Night



0800 2 THE VET | anexafvc.co.nz

So how did you perform in 2017-2018 compared to our overall numbers?

By Katrina Roberts, Herd Health Veterinarian, Anexa FVC

The middle of calving last season may seem an eternity ago, so how do you think your results compared last season?

At our recent herd owner seminar series, we presented the Anexa FVC dairy client performance in Reproduction and Milk Quality for last season.

It's easy to be swayed by side comments from your farmer colleagues and even some Rural Professionals with snippets of information, however at Anexa FVC we've been tracking the overall performance of our herds in these two areas in a consistent way for 15 years. This is what happened in 2017-18:

Reproduction Winners

The overall 6-week incalf rate for the Anexa FVC herds (that pregnancy tested with us) was up on the previous season, back to the results of the 15/16 year around 70%. However, the empty rate after 11 weeks of mating (the average) has been consistent over the last 4 years at around 12%.

There were 38 farmers (a huge increase from last year) achieving at or above the national target of 78% 6-week incalf rate, which is an exceptional result and shows that it is possible!

The overall winners were **Carlos Alatorre**, Herd Manager for **Bruce and Aidie Haultain**. This is not the first time that this farm has taken the honours and hot on his heels was last years' winners **Kelvin and Nicola Robinson** from Gordonton, and a new comer to the top - **Brian Rusk** from Morrinsville. To be at the top these herds must achieve excellent 6-week incalf rates (around 81-84%), have short mating periods (less than 9 weeks), and have low empty rates at the end of that short mating period (less than 8%).

This season I also looked at the yearling repro results that we had entered into our database. There were only 29 sets of complete records for the R2s, so we can't over-interpret the findings, but the average empty rate in this group was 10% for an average mating length of 11 weeks. We cannot accept these results for your yearlings! So, I have two pleas

- 1) Reduce the mating length and
- 2) Ensure that the pregnancy test data is entered into our system, so we continue to track this age group better. These are our future.



Milk Quality Winners

The average BTSCC for the Anexa FVC herds for the 17-18 season was 142,000cells/ml and the average incidence of clinical mastitis was 13% over the season. The clinical data has been very consistent over the years with the top 25% of herds achieving 7% clinical cases. Interestingly, the BTSCC average does shift around a little bit between seasons. The winning herds are achieving much better than this with their average BTSCC of less than 80,000cells/ml, less than 7% clinical mastitis cases, very low drug sales and very low culling for mastitis. To select the winners, the data is, of course, verified by drug sales, shed records, herd testing and culling records.

The winners were **Whakahora Farms (Rodney & Karyn Mitchell)** from Springdale, and the runners up **Hillcrest Farms (David and Bronwyn Hill / Nathan & Zintael Bennett)** from Raglan.

New Award

This season we have introduced an exciting new award the "Herd Health and Wellness Award", which has been supported by Boehringer Ingelheim. This award recognises excellence in animal health and welfare, by accounting for reproductive performance, milk quality performance, general health of the herd, low death rate in the herd and good young stock health. The inaugural winners of this award are **Williams Family Trust, Paul and Robyn Williams** from Mangaiti. This herd was 4th in the repro and 3rd in the MQ awards and combined with low mortality and morbidity in all classes of stock, this is a well-deserved winner.

Let these results inspire you to achieve great things in the 2018-2019 season!



Will worm drenching your milking herd make you money?

A study by Massey University published last year has confirmed previous research; that a treatment of EPRINEX on adult dairy cattle does increase milk solid production. The study showed that on average, a herd treated with EPRINEX would expect an increase in production of 0.03kgMS/cow/day for the remainder of lactation. There have now been two large independent studies looking at the effect of EPRINEX on milk yield in New Zealand and they both had similar results (+0.03kgMS/cow/day on average). Note that this research and resultant increase in milk-solids production has been shown only in EPRINEX in New Zealand.

For the average herd the treatment is cost effective. Treatment on average costs \$5-6 a cow and in early lactation, based on a 0.03kgMS response for 250 days (7.5kgMS) at a \$6 payout, that's a return of \$45.

So, is your herd going to get this average response?

There is no simple or single answer to this, and there are still some parts of the science we don't have answers for yet, but to make an informed decision about drenching your herd we would like you to consider the following factors that may influence the response (some of which may be intuitive but some you will need to have a chat to your Vet about);

- ? What is your stocking rate?
- ? What is your herd BW?
- ? What are your pasture residuals on average for the year?
- ? Do you have a healthy herd or are there other conditions affecting immunity such as Johnes Disease, BVD or a history of Facial Eczema?
- ? Are your cows under feed or climatic stress at this time?
- ? Do the youngstock (calves or heifers) graze on the milking platform?
- ? Are the cows grazed off farm for any length of time where youngstock graze?
- ? Do you quarantine drench stock when they arrive back on the milking platform?



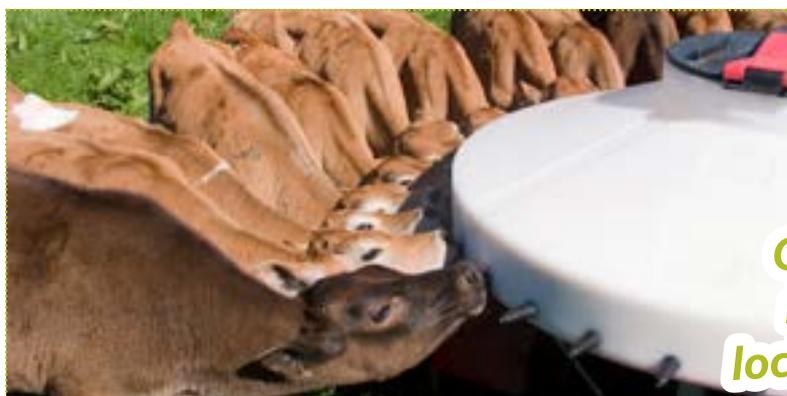
If you have then decided on a worm treatment for the adult cows, there are still more factors to consider:

- ✓ When using a pour-on application, which for practical reasons, is most common in adult animals, to be effective it needs to be applied in fine conditions, we would say at least 2 hours without rain post application.
- ? Is this the right active ingredient?
 - Certainly EPRINEX (Eprinomectin active ingredient) is the only product proven to give a milk production response in New Zealand, but if your herd has a history of liver fluke infestation then this active will not treat the fluke
 - Have you used this active ingredient in your calves and suspected (or measured with testing) it hasn't worked as well as it should i.e. is there some resistance appearing in your worm population?

What time of year will you treat the herd?

- Historically there has been evidence to support treating around calving or in early lactation, but the recent research from Massey was done in the summer. The benefits in later lactation are likely associated with improved dry matter intakes and reduce energy for immune challenge from the worm larvae, therefore there is more energy available for BCS gain or growth in late lactation early dry off.
- If you have quarantine drenched you R2s on arrival home from grazing, there is no point treating them again in early lactation.

We strongly recommend you consider your options and talk to your vet about what's best in your herd, which is likely different to what your neighbour does!



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