gateway vets

Gateway Gazette

Issue 22 | December 2020

As we count down to 2021 we can all reflect on a tumultuous year which I feel the local rural sector has navigated its way through successfully. There has definitely not been a manual but common sense goes a long way. Although most of us are still particularly looking forward to New Year's Eve, 2021 will present a few challenges as the world moves back to normality.

As some of you know Lynette has successfully published a number of children's books. We learnt last week that Lynette has been accepted into a Master of Arts for creative writers at the School of Modern Letters, Victoria University, Wellington. There are only 10 places accepted annually for this qualification so this presents an amazing opportunity for her!

We would like to acknowledge the outstanding effort and commitment shown by Lynette towards Gateway Vets since she started on day one almost eight years ago! Although Gateway will miss her, we are all excited to see Lynette progressing in an area where she has so much talent. We wish her all the best.

Finally all the staff at Gateway wish everyone a lovely Christmas and New Year and trust you will find some time to connect with family and friends.

Parasitism in Weaner Cattle

Parasitism is a common cause of ill-thrift in young stock. Weaner calves are particularly susceptible to parasitism as they have not yet developed resistance to infection. Parasitic burdens develop when cattle graze contaminated pastures, especially when the same pasture is used year after year for young stock.

Some common parasites that affect weaner calves are outlined below.

Gastrointestinal parasites

Weaner calves commonly acquire gastrointestinal worm burdens during their first summer.

Clinical signs:

- Inappetence
- Profuse watery diarrhoea
- Dehydration
- Marked weight loss

Lungworm

Lungworm infections tend to occur in late summer/early autumn when grazing contaminated pasture.

Clinical signs:

- Coughing
- Rapid breathing
- Their appetite tends to remain the same but they may have weight loss.

Coccidia

Coccidiosis occurs in young stock between 3-8 months of age, but can appear as early as 4 weeks in heavily contaminated pastures. Disease may be associated with the discontinuation of concentrates, as these are typically medicated with a coccidiostat.

Clinical signs:

- Malodorous diarrhoea containing fresh blood
- Faecal staining around their tail, hocks and hindquarters
- Failure to gain weight/weight loss

Coccidia can also cause subclinical disease in calves. This can present as reduced growth rates, loose faeces and poor coat condition, which can then develop into clinical disease if the burden gets too high. Treating subclinical disease prevents the severe gut damage and production losses associated with clinical coccidiosis.

Treatment/Prevention

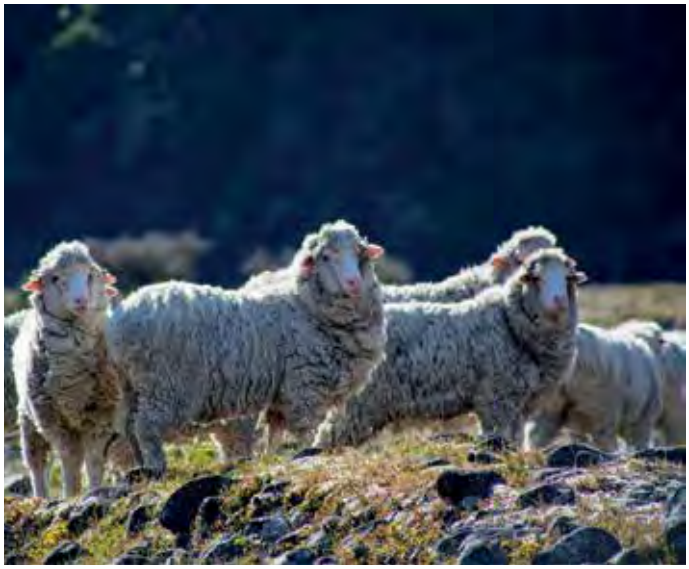
It is important to have a drenching regime in place for young stock to prevent high parasitic burdens and associated production losses from occurring. Faecal egg counts are an effective way to monitor levels of both worms and coccidia. It is also an effective way of monitoring drench efficacy and of identifying subclinical coccidiosis in calves.

If you have any calves that have been drenched regularly, are failing to gain weight and have loose faeces it may be worth bringing in some faecal samples to check for subclinical coccidiosis.

Turbo is a new range of drench products released onto the market in 2020. Turbo initial is a world first anthelmintic-anticoccidial combination oral drench for weaner cattle. It is effective against coccidiosis, roundworms and lungworms. The anticoccidial helps to bridge the gap between the removal of coccidiostat in meal and the development of the calves natural immunity.

If your farm has a history of coccidiosis or you are concerned about subclinical disease, this drench could be an effective addition to your animal health plan. We would be more than happy to discuss how Turbo initial, or any other products in the Turbo range, can work for you.

Ewe Udders



It is common practice to palpate ewe udders at weaning, because it's practical, and also so we can cull ewes early while the price is up. However, we can pick up plenty more udder issues if we have another feel 4-6weeks, after weaning – as some mastitis shows up after the lambs stop drinking. Although this means checking udders twice, it will improve survival rates of lambs at the next lambing. Studies show that lambs born to ewes with hard udders or lumps are 3-5 times more likely to die. If they do survive, their daily growth rates are decreased by 5-35grams. Going through ewes one month after weaning is also a good time to body condition score and pull out lights for preferential feeding before mating.

Sheep don't respond well to treatment for udder problems, so it is prudent to cull any ewes with:

- General hardness in one or both halves of the udder
- Lumps within udder tissue
- Burst abscesses
- Damaged teats, or hard cores in the centre of the teat

DON'T cull ewes with small lumps that are not directly part of the udder – lumps that are really close to the udder and are under the skin. These don't seem to affect milking ability.

Flystrike

Now that the weather is warming up, we will start to see fly action around the place. Making decisions around the timing of crutching and fly treatment is always a tricky one.

There are many options out there for flystrike prevention and treatment, all with different lengths of "expected action". The following factors will change the length of action that we can expect from products:

- **Fly Challenge:** The more fly pressure there is, the harder it is for the product to stand up. In a bad season, expect to get the shorter end of the label claims from your fly products.
- **Application technique:** How you apply the product and how much you manage to get on to the fleece will determine how long the product lasts. Automatic jetting races are speedy and great, BUT, if sheep are flying through and not getting soaked to the skin, then you probably can't expect to get the full length of stated protection. Using low-dose pour-on products or shower dipping are much more reliable ways of getting good duration of action out of chemicals. This obviously may not be practical, so you have to weigh up the options vs how long they will last.
- **Rain:** Heavy or ongoing rain after application of any fly product will reduce the length of protection, by stripping the product from wool. The other factor when considering rainfall is that moisture creates an environment that flies thrive in, so expect the fly challenge to be higher.
- **Resistance:** We are seeing more and more potential resistance developing to fly protection products. This is already occurring in Australia - lots of our currently NZ marketed fly products are unable to be used due to widespread resistance

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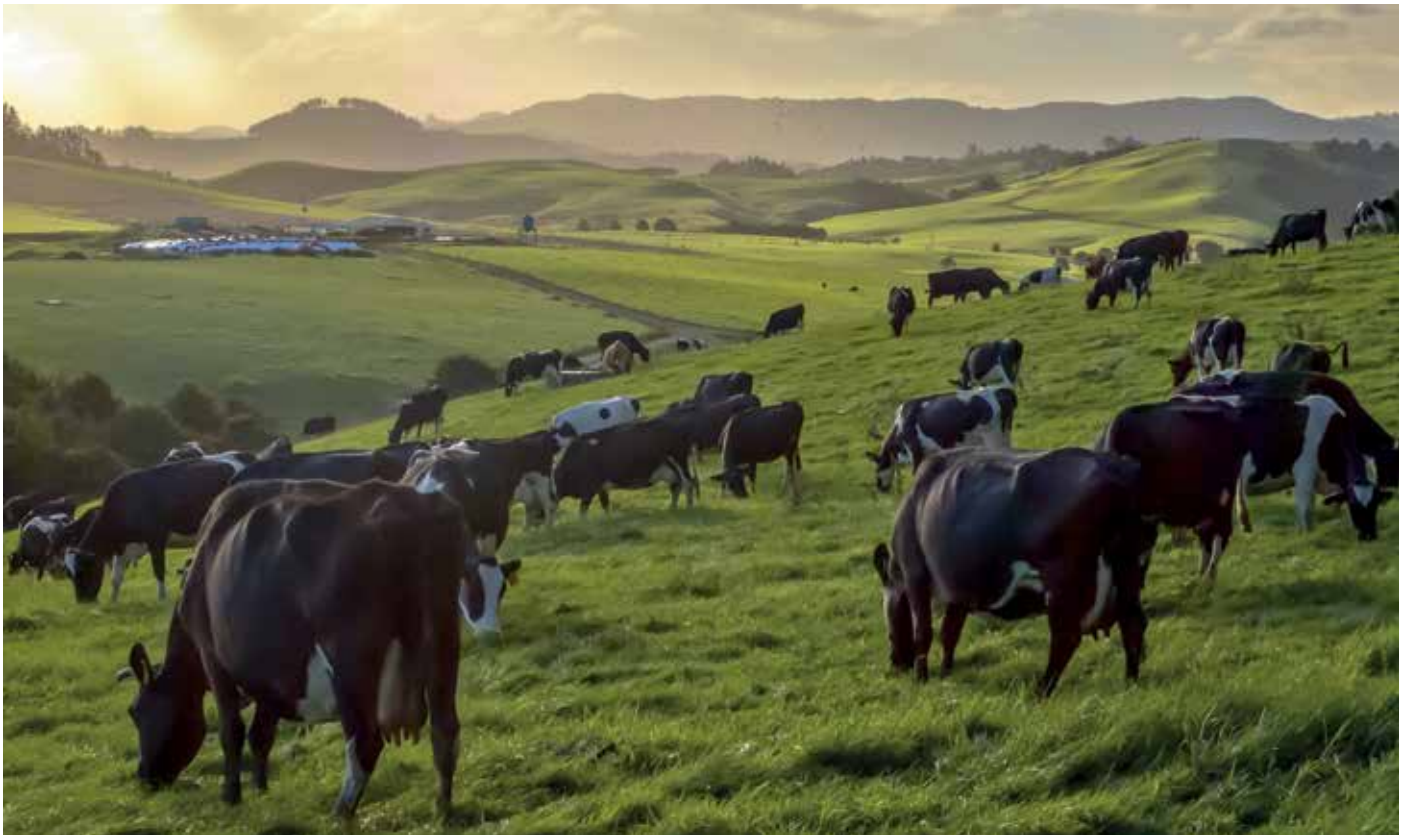
Battling BVD



Bovine Viral Diarrhoea (BVD) virus has made itself known on several farms this year, in some cases after cruising under the radar for a couple of seasons. Proactive testing of the milking herd has proved invaluable for many this year.

Often in the race to clear persistently infected (PI) animals before mating the focus is on a PI hunt in the milking herd but the legacy of BVD extends forward beyond the current season. In the first year of a breakdown, depending of course on who the PI is and how she got into the herd, we must check the R2's about to be mated and the replacement calves hitting the ground in the current season, as well as the breeding bulls. If the mystery PI remains in the herd beyond the start of mating - or without a good safety margin in between - it will also be necessary to check the new calves next year to have truly cleared the herd.

When cows are exposed to a PI during mating and the first half of pregnancy two things can happen.

a) Early on BVD virus can disrupt ovulation, disrupt fertilisation of the egg or cause early embryonic death. This can be indicated in your reproduction results, you might see a poorer than expected conception rate despite a good submission rate or you might have a higher number of cows returning to heat at an odd inter service interval instead of when you might expect them to cycle if they have failed to hold to service.

b) The foetus can survive but the calf is born Persistently Infected (PI). Persistently infected calves have been exposed to the virus in the womb before their immune system has developed. As a consequence, when it does develop the immune system recognises the virus as part of 'self' instead of foreign so never fights it off.

So looking ahead to next season, why do we recommend identifying PIs as calves instead of waiting until they are ready to join the breeding herd? Persistently infected calves pose a risk to their calf cohorts – infection with BVD at a young age has a far greater immunocompromising effect than when adult cows come across it for the first time. Calves with a PI in their pen are far more likely to succumb to diseases they might otherwise fight off such as pneumonia or scours because their immune system is under pressure from the virus. This can result in poor doing calves that never catch up, have reduced fertility as heifers and have been tracked forward to show reduced milk production over their lifetime. PI calves also pose a risk to the rest of a herd throughout their lifetime. Nose to nose contact over a fence line with an adult milker in the red mob for example, could be enough to infect her and create a next generation PI, infection of an R2 heifer at grazing could do the same.

Currently our best testing strategy for calves is blood sampling. There is a good amount of farm specific planning needed around the timing of this testing to work out what suits best rather than a blanket approach and we are working now to help affected farms plan ahead for next year. Calf testing is earmarked in our diary for 2021 and should be in yours too! For those farms who are not waging this particular battle this season, the best defence against this clever but damaging disease is excellent biosecurity, testing of any incoming stock, vaccination and proactive herd screening tests.

Who Wants To Be A Millionaire?

Tackling Sky High Individual Somatic Cell Counts

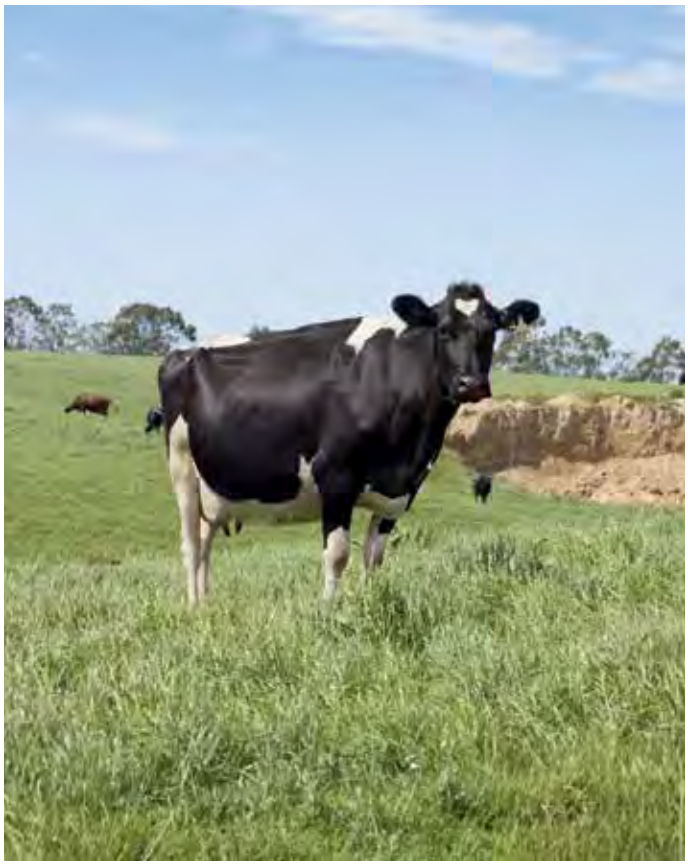
You've had your first herd test of the season and identified a number of high somatic cell count (SCC) cows, even a few tipping the 1 million mark, so what comes next? It's time to think about the individuals behind the numbers and answer the following questions. . . what's this cows history? How old is this girl, is this the first high result or a trend for this cow, does she have any signs of clinical mastitis at the moment? Any cow with a cell count greater than 150,000 cells/ml warrants further investigation.

Let's take the example of cow #5050, she's 7 years old, milking well but has a massive ISCC result of 1,000,250 cells/ml this time around. At the previous test in the same lactation she had 450,000 cells/ml but no signs of mastitis and thinking back you're pretty sure she was dried off with combo - Cepravin and Teat Seal meaning she'd have been higher than 250,000 cells/ml last season too. You perform a Rapid Mastitis Test (RMT) and the reagent turns the milk soupy in the back left of the paddle. It's time to work out why, so you take a sterile milk sample but the culture is negative. Frustrating. So what's going on?

She's almost certainly got a chronic Staph. aureus infection. So why can't we prove it? Often with Staph. aureus the udder presents a good immune response to the active infection, it walls off the bacteria within the udder tissue in 'micro-abscesses'. These are normally dormant, but the udder still has a constant immune reaction toward the abscesses, resulting in the high SCC. Occasionally they burst - potentially causing a clinical mastitis, but definitely releasing bacteria that then is contagious to other cows.

What are our options for cow #5050 and others like her?

1. Cull. Removes the cow, reduces risk of contagious spread and significantly reduces bulk tank SCC.
   Should be considered especially for in cows that have had high SCC over two lactations despite dry cow antibiotic therapy.
2. Early dry off of all 4 quarters. The high concentration of antibiotic in dry cow is more likely to treat chronic infections, but is more suitable for cows at the end of lactation.
3. Single quarter dry off. Is suitable where the RMT indicates an issue in a single quarter. However NO antibiotic should be used at dry off during lactation and the affected quarter should NOT receive dry cow therapy when the cow is dried off at the end of the season. By this point the dry mammary gland has involuted and so the risk of antibiotic residues in milk post calving is high.
4. Treat during lactation. Treating high SCC cows is not always economic, particularly for cows with high cell counts over multiple tests, those without clinical mastitis and those who are culture negative. This is because bacteria sitting in walled off micro-abscesses are difficult for antibiotics to reach. With cure rates of only about 50% this is where case selection and treatment choice really become important – decisions we can help with.



5. Altering milking order. Milking these cows at the end of the milking will reduce spread to other cows in the herd, whether as a short term measure until the next herd test, or long term to keep cows in the herd. It is probably better suited to the UK style of dairy farming, but running these girls as a separate mob might be practical for some.

My recommendation for cow #5050, unfortunately, is to cull her, especially now her cell count is so high it is likely she is having a big impact on the bulk milk count and costing you penalties. Given we have narrowed the problem down to one quarter, and its early in the season, you might consider leaving the affected quarter to dry off, but I wouldn't recommend putting her in calf again and keeping her on your cull list pre Winter. If you choose this option it is going to be really important she is well identified so staff know not to milk that quarter and that she is milked last to try and help limit spread.

The story, however, might be different for the next cow on the list so the next time your herd test results come in consider digging deeper into the individuals behind the numbers. We, at Gateway, are more than happy to help with decision making around these cows, whether that be as a 'phone a friend' lifeline or in person at the dairy shed to assist with RMT testing, milk sampling and treatment versus management planning if you or your staff would benefit from an extra pair of hands.

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