

What's Up Doc?

- Ryan Olesen

The first half of the year has gone quickly! The Field Days were a hit, with the standard mud to test the farm tyres, and Gypsy Day was as busy as usual with the coming and going of many livestock and farmers alike.

As we move into July, spring calving creeps up quickly. Make sure your calving kits are ready to go and mineral bags are well stocked. Calf-care is essential for the prevention of sick animals and making sure growth rates are optimised. Oscar and Jackie have given great information below on calf health and the treatment of scouring calves.

The rapid changes in temperature from frosty mornings to sunny afternoons have a tendency to cause rapid changes in plant nitrogen uptake, so continue to monitor nitrate levels, especially when supplementing the herd with winter crops and grazing on any newly planted grasses.

Winter is also the lowest time of the year for herd copper (Cu). Copper levels will continue to drop until copper liver storage is depleted. Because of this, low Cu serum levels may indicate a deficiency. However, serum copper levels may still be relatively normal right up until the liver Cu reserves are completely gone. **Therefore, normal serum copper does not rule out deficiency in copper storage** and liver Cu testing is the most accurate method for establishing herd liver data. Farmers should aim for a target of >300-400µmol/kg liver Cu value in autumn/early winter in preparation for seasonal fluctuations.

The climate, so far, has made it an incredible year for production. The wet summers and dry winters have led to amazing grass growth, giving many farms their best milk production years to date, even with a reduction in supplementary feed. While we hope this weather trend continues, continue

to remain vigilant for sudden changes or wet spells that may stress crops, pastures and animal production.

Above all else, remember to stay dry and warm during the cold snaps and look after yourselves!

What's happening on-farm?

- ✔ Spring calving
- ✔ Spring kidding
- ✔ Disbudding
- ✔ Autumn mating and early scanning

Magnesium - why you should supplement

- Ryan Olesen

Magnesium (Mg) is important for nerve, muscle and immune function in the body. A deficiency can be seen in cows with sudden aggression, staggering, recumbency and even death.

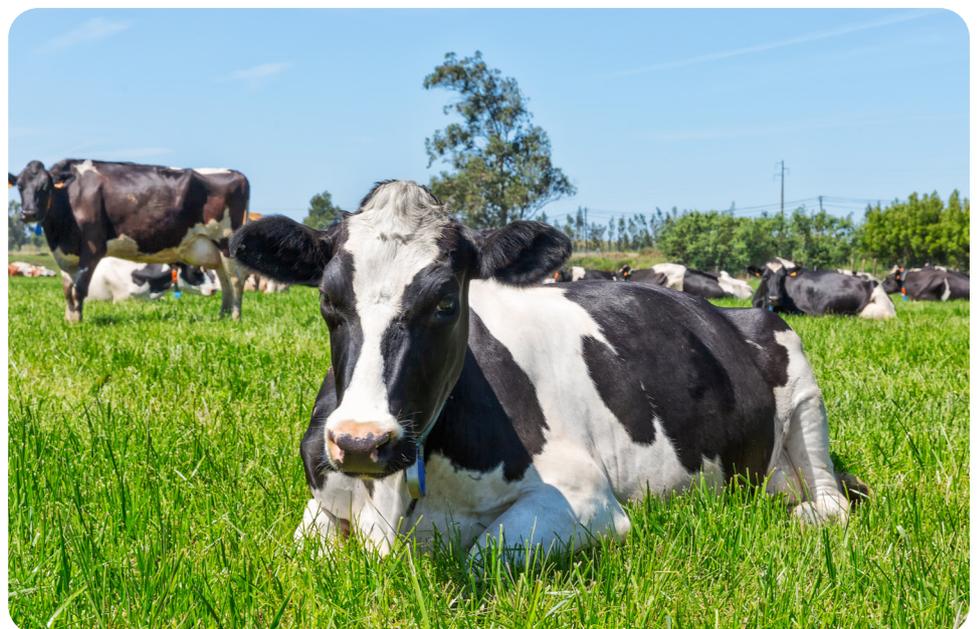
Magnesium is also required for the production of hormones that assist in the absorption of calcium from the gut and mobilisation of calcium from storage in the bones. This is important when calcium is in such high demand from a lactating cow directly after calving, which correlates to when cows are at the highest risk of calcium deficiency (milk fever).

As magnesium storage in the bone is not readily available to be utilised by the body, **cows are dependent on the magnesium supplied in their diet to maintain blood Mg levels.** Therefore, supplementation of magnesium to the herd is the frontline to preventing deficiency.

Supplementation

To reduce the chance of your herd getting milk fever, supplementation of magnesium should occur at least 2-3

weeks prior to calving and continue until after spring calving growth rates have reduced (December). Supplementation with Mg sulphate or



Mg chloride will be more beneficial for milk fever prevention than Mg oxide. However, adequate supplementation may be difficult to obtain with one supplement method alone.

Lactating cows require 0.28% of their diet to be magnesium (0.35% for dry cows). It is often more beneficial to combine magnesium supplementation in the water with dusting the paddocks (Mg oxide) as well. **Pre-calving magnesium supplementation should be at 60g/cow/day in the water trough (Mg sulphate or Mg chloride) AND dusting the paddocks with Mg oxide at 50-70g/cow/day.**

High risk factors

Magnesium requirements may vary depending on multiple factors. Demands will be higher during calving and early lactation when calcium needs are also at their peak. Larger dairy breeds will also have higher requirements than smaller cows (e.g. Friesian vs Jersey).

Diets that have low magnesium (e.g. maize silage or fodder beet), or high amounts of potassium (such as paddocks sprayed with effluent or potash) will require more magnesium supplementation. The latter is because high levels of potassium blocks

magnesium from being absorbed in the rumen.

If you have any concerns about your herd's mineral supplementation, feel free to contact one of your friendly VCM vets for advice.

Resources: DairyNZ; Farmfact 3-1, February 2020.



Spring with calves: Diarrhoea

- Jackie Davies

Each season, we see outbreaks of scours in calf sheds. In some cases, the setup of the shed exacerbates the problem, with inadequate systems in place to separate sick mobs from healthy ones. Some calves may also not have access to water, which prevents the dehydrated calves from being able to self-medicate.

With cases of down calves and scouring, we will collect samples to confirm the cause, which is often rotavirus or *Cryptosporidium*. Once we have identified the root of the problem, we will stomach tube any down calves with warm electrolytes and help the calf rearer to practice until they are confident to take over.

Ultimately though, calf scours can be very difficult to manage. Once it starts, it often spirals downward as it's very contagious and hard to eradicate the bugs once they have started multiplying.

Avoiding calf scours in the first place is much easier than stemming an outbreak, which can be very frustrating

as the viruses causing it are very 'sticky' and hard to clean away, plus easy to transfer between pens on boots, calves and feeders.

Prevention

Hygiene, environment, and colostrum are all important factors in prevention.

Not all calf sheds are made equal, or even purpose made. The ideal shed is north facing or facing away from the prevalent wind, with solid sides and fences up to 1-1.5m high, depending on bedding depth, to reduce the wind to nothing at floor level. Air circulation in the shed is important as sheds shut up tight can have high ammonia levels from urine, which irritate the nose and lungs and can lead to pneumonia.

Getting the floor right to promote drainage is also important, to help keep the bedding dry. You can also spray out the whole shed with a virus-killing treatment, such as Vetsan or Sterigene, prior to putting fresh bedding on and before any calves are in the shed.

Solid walls in the shed, or at least between the sick pen and other pens, can help improve the ease of cleaning out one area, and reduce spread of disease between pens.

Visitors to the calf sheds should also be avoided, or else they should be encouraged to use a disinfectant foot bath, and perhaps have gumboots only for the calf shed.

Colostrum is essential early in a calf's life as their stomach lining reduces how well it absorbs antibodies within hours of birth to not at all at 12 hours after birth. Getting calves out of the cold weather and some colostrum into their stomach early can require an extra staff member, but can make everyone else's

jobs easier in the long run.

The amount of antibodies in cows' colostrum can be increased both by using "gold" colostrum, and by injecting cows with a vaccination such as Rotavec Corona vaccine, 3 -12 weeks before they calve, to increase the protection a calf gets against some of the common causes of calf scours.

Treatments available

Replacing fluid loss is usually done with electrolytes such as Revive. Protocols have changed over the years, but studies have shown continuing some milk feeds while giving electrolytes, rather than stopping them completely, is more beneficial to the calves, as they lose less weight and recover quicker.

The tables below help give some sample treatment protocols.

At over 8% dehydration, intravenous fluids can be more beneficial - Call your vet if you have a valuable calf you would like IV fluids for.

Anti-inflammatories such as Metacam have been shown to reduce pain and improve drinking and recovery in calves with scours. Antibiotics do not necessarily help, but we do recommend them if the calf's temperature is elevated (over 39.5°C).

Testing for the cause of diarrhoea - preferably with 3-4 samples as some viruses do not test positive in every case - can be helpful in determining other treatments that may be useful. Talk to a vet about your situation, and they may recommend Halocur, or Kryptade for cryptosporiosis, or Rotagen for rotavirus.

If you had any problems last year and wish to discuss if there any preventative measures you can put in place now, or if you are starting to have an issue with scours in your calves, give us a call.

% DEHYDRATION	EYEBALL SUNKENESS	SKIN TENT TIME (SECONDS)	MUCOUS MEMBRANES
0-4	None/slight	1-4	Moist
5-8	Slight separation between eyeball and orbit	5-10	Tacky
9-10	Up to 0.5 cm between eyeball and orbit	11-15	Tacky
11+	0.5-1.0 cm gap between eyeball and orbit	>15	Dry



Electrolyte therapy for Scours: MODERATE. Total of 6-10 litres of fluids per day.



Electrolyte therapy for Scours: SEVERE. Total of 6-10 litres of fluids per day.

Image credit: Virbac.

Parasite reminder



Parasite egg counts are highest in the pasture during autumn and spring. We are getting increased

cases of parasite burden in young, weaned stock that have ingested large amounts of worm eggs on pasture during the autumn break.

Regularly check your stock for cases of diarrhoea and/or loss in condition and worm drench cases with suspected worm burden.



Calf care 101

- Oscar Porras

Spring calving is just around the corner, which means the sound of mooing calves will soon be filling the air. These calves are the future of our farms, so making sure they have the best start in life is important to ensure the longevity of our dairy herds.

There are two concepts to remember when caring for your calves:

1. **Maximising defence**
2. **Minimising challenge**

Maximising defence

Maximising the defence of your calves starts as soon as they are born. Picking up calves within the first 8-12 hours of life guarantees that their navels are sprayed with iodine and that they are taken to the calf shed to reduce the risk of hypothermia.

Be gentle when transporting them, and do not overfill the trailer to minimise injuries to your newborn calves.

Spraying navels again once they arrive at the shed further reduces the risk of infections.

Colostrum is one of the most important ways you can increase your calf's immunity. Three Qs to remember about colostrum: **Quickly**, **Quality**, and **Quantity**. You need to quickly give calves colostrum (i.e. within the first 12 hours) since their capacity to absorb antibodies reduces after 12 hours and is very minimal after 24 hours. The quantity of colostrum calves

should be getting is at least 4-6L/calf/day. Lastly, colostrum quality must be good, meaning it must come from freshly-calved, low volume, mixed-age cows. Measuring the colostrum with a refractometer will help you determine its quality.

Storing colostrum properly allows us to maintain the quality for as long as possible too – make sure you have fridge space for your fresh colostrum, otherwise freezing it is also fine, so long as you defrost it slowly. Potassium sorbate as an additive can also prolong colostrum's shelf life.

Minimising challenge

While it is important to maximise your calf's immune defences, it is also important to minimise the challenges we are exposing these calves to. Good calf pen hygiene is imperative - keep the pens dry, clean them out, and regularly disinfect them.

Making sure we do not overcrowd our calves in the pens also reduces unnecessary nose-to-nose contact, especially with sick calves. Additionally, sick calves should always have their own, separate pens away from the healthy calves to further reduce the risk of spreading disease to others.

Always clean your feeders between feeding to reduce build-up and minimise spread of bacteria and other bugs. Also, remember that we as humans can become carriers of

these infectious bugs, so disinfecting ourselves, our equipment, and our PPE (Personal Protective Equipment) will also decrease the risk of spreading pathogens to our calves.

These are just some broad ideas on how you could manage your calves in the upcoming spring season. Let us know if you have any specific questions about calf management, or if you would like us to talk to you or your team about managing calves this season. Our team would love to work with you to ensure that your calves get the best start to their lives on-farm.

Signed, sealed, delivered.



And that's a wrap! As the vet and vet tech teams finish the last of the teat sealing and dry cow therapy, we want to say thank you to everyone for getting through the May-June teat sealing and dry-off period. Our techs have been outstanding this season and we appreciate you all!

Our clinic

62 Moorhouse Street,
Morrinsville
3300

Phone : 07 889 6738

Email: office@vetcm.co.nz

www.vetclinicmorrinsville.co.nz

