

CLUTHA VETS DAIRY FARMER NEWSLETTER



CLUTHA
VETS

July 2022



Clinic News

At Clutha Vets, we are enjoying a slight lull in the dairy workload before cracking into the spring consults and then calving. We hope you and your staff have, or will, manage a bit of a break, just as most of us have had a chance to recharge our batteries. For those who have moved to our district or moved farms within it, welcome, and we look forward to meeting you soon and offering you outstanding service in the coming season.

This spring marks the 40th anniversary of our vet Sid Taylor (at the Milton branch) becoming a veterinarian, initially in his native South Africa, then in Otautau before coming to Clutha Vets in 2008. In that time, Sid has been of massive help to many dairy farmers, especially calling upon his special interest and vast experience sorting out nutritional problems and maximising production. We'll be celebrating at the Henley Hall on Thursday 21 July, if you'd like to join in, please phone Lucy on 418 1280 (then press 0).

You are probably aware that as part of the Mycoplasma bovis surveillance scheme, we have offered to contribute \$1 per cow we blood sample to a local school nominated by the owner of the animals. We are happy to announce that we have just made **\$6,500** of donations to 20 schools / Early Learning Centres in our area. Well done everyone, and thank-you from those schools!

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Keeping your vet happy

Over the next few months most dairy farms are likely to have at least one or two vet call outs for a calving or other emergency. A phone call from you early on doesn't commit you to a vet visit, but might allow us to get some greater efficiencies in the system if there is already a vet nearby. Cases which are true veterinary emergencies include the following: prolapsed uterus, toxic mastitis, calving of a live calf and metabolic cases when you can't find the vein. The sooner you let us know, the sooner we will be able to get a vet there.

Regardless of what we are coming to, a couple of buckets of clean, warm water are usually required to rehydrate cows, lubricate calvings, prepare for surgeries etc. Warm, because if a cow is already sick, the last thing she needs is 30 litres of icy water dumped into her body core

If a cow is down, it is helpful for both diagnosing the problem and treating her if the tractor and some equipment for lifting her are nearby when we get there.

For calvings, if she can be brought to the shed or yards before we get there, that will also make life much easier for everyone. And if she's not at the cowshed, a clear description of where she is (including rapid number) will help.

Regardless of the job, extra hands on deck are always welcome – especially if someone has to leave to fetch something, etc. Please try to have at least one and if possible two people present to assist the vet.

Getting the calf sheds ready

Recent studies have shown that calf growth rates in the first 70 days of life are the most important for future production and survival in the herd. This being said, housing in the early months is clearly vital to how well these animals will perform over their lifetime. Well grown calves can produce up to 400L more milk than poorly grown calves in the first season alone. With spring rapidly approaching it's time to get thinking about the calves again. Now is an excellent time to check the bones of your calf shed.

A good shed is well ventilated, but not draughty at calf level. This is extremely important as we want fresh air moving through to avoid illness such as pneumonia. However, we do not want a breeze blowing at ground level chilling the calves, or bringing in cold weather and rain on wetter days. Block up any holes that are less than 2m above the ground, and while you are at it, make sure any sharp nails, wire and iron are removed or flattened. If the front of the shed faces the prevailing wind, consider hanging a windbreak cloth curtain down the front.

Further to this, calf sheds need a free draining ground surface layer to reduce buildup of waste and excess water during the season. Free draining soil under your shed is perfect. However, if you aren't lucky enough to have porous soil under the pens, river stones are an excellent, cost-effective base layer which help with drainage. Ensure a soft, warm bedding is added on over top. This should be 30cm deep preferably sawdust, shavings, or bark chip. Windbreak cloth can be used again—this time to separate the bedding and the stones, to make cleaning up much easier at the end of the season. The new Code of Welfare for dairy cattle is likely to prohibit keeping calves on stones without a soft bedding layer.

If you are putting up new pen partitions, consider the group size and space requirements of the calves. Best practice is to have no more than 20 calves per pen, with 1.5 m² per calf (ie 30m² per pen) and no more than 100 calves per shed. Partitions between pens should be solid (hay bales are great, but take up space), and the sick calf area should be well away from all the other calves.

It's also time to sort out the water supply, meal troughs and hay nets. All calves require access to clean, fresh water at all times. Make sure there are no leaks in the water lines, the troughs are level with no leaks, and the ballcocks are functioning. Those swamps that develop around the water troughs are breeding grounds for disease! Our aim is to get calves ready for weaning as quickly as possible — although the new welfare code will likely make inclusion of milk in the diet to 6 weeks of age a necessity. To aid this, calves should have ad lib access to meal and fibre (straw and hay) from day 1. Troughs for meal (and bentonite) need to be at least 50cm above the ground to avoid being pooped in, but still accessible to the other end of the calf.

Get all of your hygiene supplies ready now, too. You'll need anti-viral disinfectant and scrubbing brushes for cleaning all feeding gear and footbaths. It may even be worth having a dedicated pair of calf shed gumboots for each person working in the calf shed to wear when they are amongst the calves. Certainly dedicated overalls and scrubbable pants are a worthwhile investment.

Finally, don't forget the calf paddocks. The biggest issues we see are caused by wet areas and inadequate shelter. What can you do now to drain the areas where water accumulates—a bit of novaflo, or a load of rock? Puddles and bogs can be the source of a range of diseases—crypto, cocci and lepto amongst them. And just as we don't want our calves to be cold and wet while they are babies in the shed, we also don't want them to be cold and wet when they are a little older and moved outside.

What can you do now to create shelter for this season and ongoing—perhaps a bit of planting would be valuable? Or can you create some shelter using iron attached to fences, or hay bales? Every year we get a blast of nasty weather come through when the early calves are already outside. What protection can you offer your calves from the elements to ensure their maximum growth and lifetime productivity?



Metabolic disease—supplementation and trouble shooting

Supplementing magnesium in late pregnancy and early lactation is one of the cornerstones of preventing milk fever and grass staggers/tetany. At a **minimum** cattle should receive 15 grams/cow/day of elemental magnesium down the throat during the two weeks leading up to the planned start of calving to help kickstart their calcium metabolism.

What are the factors that create a need for Mg supplementation during spring?

- Sudden increase in calcium metabolism due to the onset of lactation.
- Cold weather which reduces grass growth and cow intake.
- Diets naturally low in Mg and/or high in potassium (K) e.g. pastures (low Mg, high K), fodder beet (low Mg), paddocks with high potash or effluent (high K).

When are your cows going down?

- **Springers** – Could be a lack of Mg; check that the quantity of magnesium for the number of animals is correct and that the proportion of different forms used (MgO, MgS, MgC) is appropriate.
- **Colostrums** – Often a lack of calcium +/- not long enough on the right forms of Mg.
- **Milkers** – Often a lack of calcium, consider supplementation with lime flour if not already and check the quantities being used are adequate if already supplementing it.

Do they respond to treatment?

Yes – Most likely straight forward milk fever.

No – Check treatment regime is appropriate (are the right product(s) being administered correctly?) or could these cows have ketosis (high BCS animals or lack of energy in transition diet)?

Still having issues despite good serum magnesium levels (10 blood samples collected from herd) and optimum magnesium supplementation?

- Herds producing well with down cows pre-calving or right on calving could consider the use of gypsum (Calcium Sulphate) in their springer mob.

Is most milk fever occurring post calving?

- Consider picking up calves more often if only collecting them OAD, this should result in improved grazing by cows post calving and calves getting colostrum quicker.
- Not enough limeflour for colostrums.
- Feed colostrums well as this is important for post calving recovery, offer a variety of feeds/supplements. If using cow collars monitor rumination rates in this group to assess your management of this group.

Other considerations

- Pre-calving, we want to *lower* the dietary cation-anion difference (DCAD) to stimulate the cow to metabolise its own calcium reserves. Magnesium chloride and sulphate are anionic forms of Mg that help do this, and therefore help to reduce the incidence of metabolic disease.
- Magnesium chloride (or sulphate) through the dosatron – approx. 60 g/c/d commonly used in conjunction with MgO dusting to achieve adequate daily Mg intake, pre-calving
- To get more mag-C and mag-S into springers you can put it on balage (mixed in water as a slurry, or sprinkled on).
- **NEVER** use lime flour in your springers (counteracts anionic salts and raises DCAD).
- Reduce fresh grass intake if possible. It is high in K (potassium) which raises DCAD. Longer winter-saved grass is better for springers as it is lower in K.
- If dusting MgO on pasture, need to at least double or possibly triple rates to allow for field losses. When mixing with feed, double the rate.
- Overdosing of mag oxide, '**be cautious with causmag**', no more than 50 g/c/d down the throat
- Download the Dairy NZ Facts and Figures app on your phone to get quick access to Mg supplementation tables to help with calculations.

Recognising the calving cow

We all hate that sweet smell of a rotten calf inside a cow. The smell never seems to go away no matter how much you scrub your hands! It all goes back to when the cow started to calve about three days ago and was not noticed. What did we miss? A cow in the early stages of calving may show some of the following signs – restlessness, standing with an arched back, tail in the air, getting up and down, straining, and maybe evidence of a slight discharge. Can everyone on the farm recognise these?

It is good to have a calving pad policy on farm. If there are a large number of cows in the springer herd it is advisable to have a designated person(s) to look after them—it will be a full time job monitoring them, assisting them when they are having difficulty and drafting cows and calves to their respective sheds. Make sure that there is plenty of time, many times a day, to actually look closely at each springer. If you are suspicious of a cow, then record the tag number of the animal(s) and the time on your phone (for those of the more 'mature' age a notebook and pen is just as good!). Then when you go off duty you can pass this info on to whoever is taking over. If there is no progress after two hours (maybe slightly longer in heifers) get her in and examine her with a gloved and lubed arm.

If you are not sure about a particular cow—has she calved? is she calving? - then get her in to examine. If in doubt, check her out! Whatever your planned start of mating is, cows will start calving up to 14 days before (or after) this – there is that much natural variation so you can't just rely on her predicted calving date from pregnancy testing. We tend to get the worst calvings at either end of the season—when cows are calving when they "shouldn't" be.

When you calve a cow, even if the calf is enormous, always stick your hand back in to check there is not another calf in there. And when you've pulled out the twin, put your hand back in and check for the triplet! If a calf is having trouble lining itself up for birth, it is often because there is a twin pushing it from behind.

If your staff spot a cow having calving difficulty just before they are due to go off duty, don't penalise them by making them hang around till it's sorted. Reward them with a bottle of wine or a 24 pack for being so perceptive, and stay back *yourself* to sort it. That way, they won't look the other way the next time the situation arises. Rotten calvings are almost unheard of in many places overseas – let's try and improve the level of management so that the same applies here!

And then, how to calve her : 1-2-3

1. Be kind and gentle.
2. Immobilise her somewhere safe for her and you.
3. Wash the dung from around her vagina and tail with disinfectant.
4. Using plenty of lube on your arms, establish whether the cervix is dilated, and how big the calf "seems"
5. Establish which way the calf is coming. If there is no head, remember that the fetlock and "knee" on the front leg bend the same way, the fetlock and hock (hind leg) bend in opposite directions. Check that all parts you are feeling belong to the same calf, and that there are no "extra" bits.
6. Insert 4-5 litres of warm water and lube. Use a big syringe, or manual pump.
7. If you need to rearrange legs, make sure you keep one hand over the claws, to avoid them ripping the uterus. If you need to move a head, keep one hand over the mouth so the calf's teeth can't do the same thing. You may need to gently push the calf back into the cow to do this.
8. If using a rope on a live calf's head, make sure it is in the mouth and behind the ears, not around the throat, strangling the calf. Use this rope to maintain the calf's head in the correct position, not haul on!
9. If you can't achieve what you're trying in 10 minutes, call for help, or try another approach.
10. Use clean ropes and chains.
11. Don't start to pull until you have the head and front legs in the correct position (or the back legs, with the tail between the calf's legs)
12. Pull slowly; give the cow time to stretch, and work with her as she pushes. Use more lube.
13. Pull down, as well as out, the way a calf would fall if born unassisted. If using a jack, use gentle downwards pressure on the bar to ease the calf out, and crank the handle only to take up the slack. If you are using a pulley, anchor it near to the ground.
14. Don't pull with all your might. Don't tighten the jack beyond what is reasonable. Don't have two people on a pulley rope. If it doesn't want to come, don't force it.
15. Roll the calf length-ways as the front comes out, to line the calf's hips at 45° to the cow's pelvis.
16. Clean your arms, check the cow for internal damage and **always always** check for a twin.
17. Don't pull the membranes if they are not ready to come on their own.
18. Any problems? Call your vet straight away!
19. Be kind and gentle.

Healthy teats mean less mastitis and a lower somatic cell count

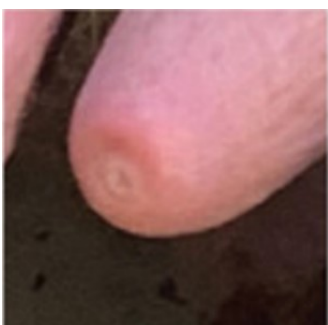
Bacteria are everywhere on our cows' udders, happily living there or constantly getting splattered on from the environment, yet most cows will go through the season mastitis free. So why do some cows succumb to mastitis while others don't? Differences in *teat condition* play a massive role in the risk of getting mastitis, as the teats are the first lines of defence.

This occurs through a combination of:

- intact skin preventing bacteria from entering the teats, and not providing any nooks for bacteria to hide in and replicate
- a fatty acid layer on the teat surface that has bacteriostatic properties, making it harder for bacteria to replicate on the teat surface
- a teat opening that closes tightly to prevent milk leakage and prevents entry of bacteria to the teat canal.



Anyone can spot a poor udder from a mile away, but teat health is less obvious unless you get up close to the teats and have a good look, under decent light.



So, what does a healthy teat look like? Healthy teats should have the following:

- the teat end should be a nice smooth surface that can close tightly, and doesn't provide any nooks for bacteria to hide in
- the teat skin should be intact, i.e. no cuts, cracks, or sores
- the teat skin should be soft and supple, this is to allow the teat to stretch in the milking machine without becoming damaged
- the teat skin should not be dry, as this will mean the fatty acid layer won't work well and the teat skin may crack even without suction.

Teat condition at the start of the season is often poor due to the drying effects on the skin of having mud on them over the winter. The goal at the start of the season should be to get the teat skin back to soft and supple as quickly as possible.

Some of the recommendations to achieve this are:

1. Clean the mud off with a low-pressure hose when each cow comes in for her first milking.
2. Strip the cow out to check for clinical mastitis.
3. Teatspray the cow pre-milking, ideally moving on to the next cow to allow time for the teatspray to work before coming back to cup each cow later (you must not pre-spray cows if you are sending colostrum to the factory, but there are no issues if all of your colostrum is going to calves).
4. Apply teat grease to any very dry or cracked teats. Tubes of grease are much better than buckets—we've all seen the un-lidded buckets sitting in sheds accumulating dirt, poo, water and bacteria!
5. Teatspray the cows again after milking, making sure the teatspray contains an adequate amount of emollient to moisturise the teats throughout the day.

Once the season has begun, nearly all the issues we see with teats occur due to damage from the milking machine, and a lack of moistening by the teatspray. We can minimise this damage by not having our vacuum too high, and by removing the cups as soon as cows finish milking. Milk in the cup during milking acts as a barrier between the teat end and the vacuum pump. When milk flow stops, the teat end is exposed to full vacuum pressure, and this is the time when most teat end damage occurs.

We should also make sure our teatspray is covering all of the teat surface and make sure it contains enough emollient throughout the season. If we do all of that, then we should maintain healthy teats, have fewer bacteria getting into our cow's udders, and therefore, have less mastitis and a lower bulk somatic cell count. So, have a look at your cow's teats throughout the season, or get us in to do it for you, and if you find more than a couple of teats that look like this one, make the changes needed to improve your cow's teat health. We are more than happy to help with figuring out what those changes might be.



Pain Relief—an essential part of your spring first aid kit

Cows are built to disguise their pain (they are prey animals) but they give us clues that prove to us that they are much more sensitive than many realise. Have you ever noticed the quick and accurate swish of a cow's tail when a single fly lands on its rump? Perhaps they aren't as "tough" as you thought? The single most effective tool we have available to combat pain in our cows is a group of drugs called Non-Steroidal Anti-inflammatory drugs (NSAIDs).

Situations when NSAIDs should be used include:

Mastitis - NSAIDs use at time of mastitis has been shown to improve cure rates and also lead to improved reproductive performance. This makes sense! The quicker cows get back to being pain free, the quicker they will start eating normally and start cycling. It is also known that the inflammatory chemicals released during mastitis have a negative impact on the ovary and developing eggs,

Any assisted calving – Calving hurts! It can be thought of as a widespread inflammatory process. Anti-inflammatories speed up recovery which gets the cow eating and milking quicker.

Lameness – Lameness by definition is painful for cows. Use of NSAIDs has been shown to improve cure rates when added to good foot trimming and use of foot blocks.

Down cows – Cows are heavy and can cause damage to their own bodies when they are lying down for too long. Having them on a suitable surface, and regular lifting and physio help, but so can NSAIDs.

Sick Calves – Whether it be scours or navel ill, sick calves will recover and regain their appetite faster if they have reduced pain and fever. The parents amongst us know the benefits of a dose of Pamol!

Make a pain relief plan with your vet at your upcoming spring consult and enjoy the benefits that proactive pain relief for your animals can deliver. Your cows will love you for it!

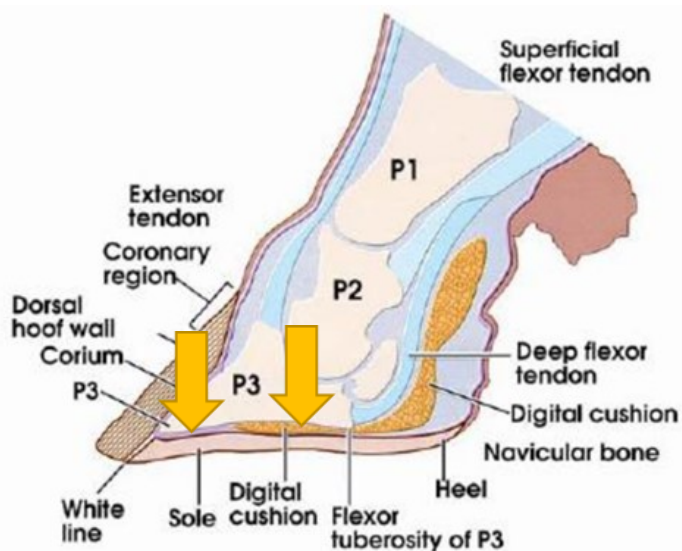
The “Calving Effect”

Every year when our cows prepare to give birth, their bodies undergo some major changes to help everything go smoothly (most of the time). One of these changes is the relaxation of the pelvic ligaments and the connective tissues in the birth canal which allows the everything to stretch, and the calf to pass through more easily.

However, the enzyme that loosens the pelvic and birth canal connective tissues also loosens connective tissue elsewhere in the body, including the ligaments in the foot. When the ligaments of the foot relax at calving time, it can allow the sensitive hoof-producing tissue to be pinched between the bone and the sole of the foot. This causes inflammation and bruising of the tissue that it produces in our cows' hooves, and it is thought that this inflammation is a major contributor to the increase in lameness we often see a couple of months post-calving in November and December.

A recent NZ trial looked at trying to “toughen up” the feet of heifers by walking them and standing them on concrete for about an hour every day for 5 weeks before the start of calving. Unfortunately, this did not decrease the time to their first lameness event.

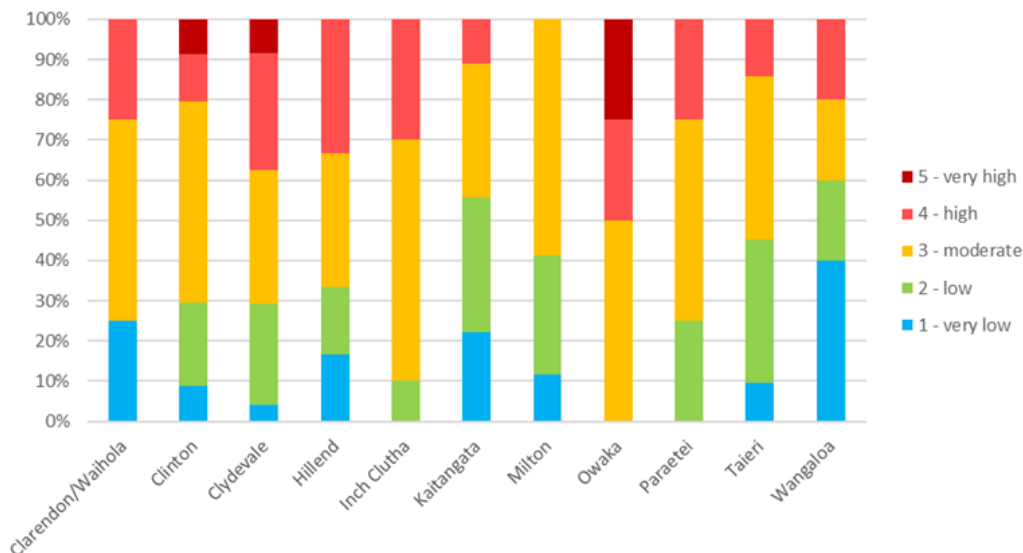
But, there are things we can do to reduce the damage caused in the hoof including limiting the time that cows spend on concrete immediately post calving (eg yarding time of colostrum cows), use of NSAIDs to limit inflammation, and having our cows calving in good body condition. Cows in good body condition have an inbuilt shock absorber in the form of a fatty digital cushion that sits in between the bone and hoof in the foot !



BVD across the practice

Most farms are now on a routine system of monitoring their herd for BVD (Bovine Viral Diarrhoea) each year, and most of you will have some familiarity with what your results mean for your herd. Here's a snapshot of the situation across South Otago—the sort of data those clever people use when they model the spread of a disease.

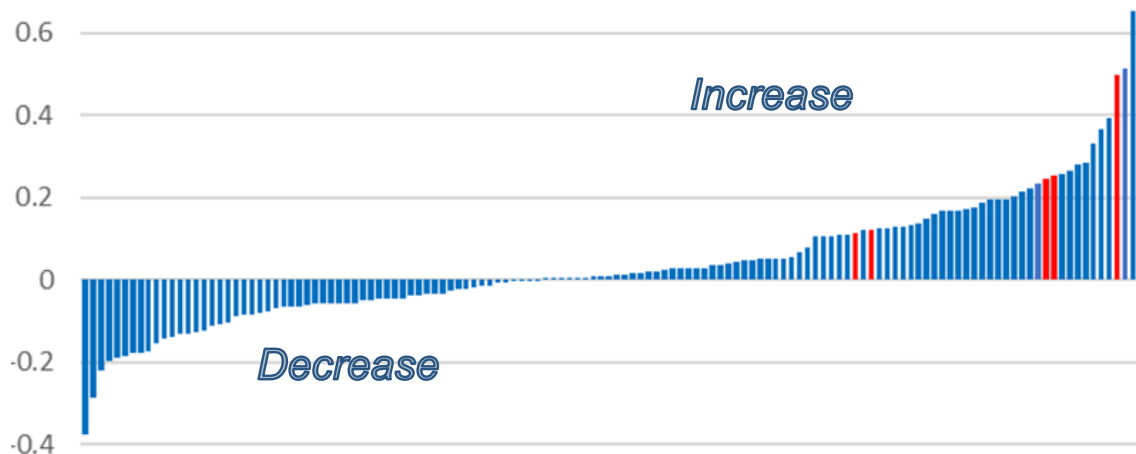
Antibody levels give us an idea of how much exposure there has been within your herd to the BVD virus. The higher the exposure, the more recent and/or greater number of cattle that have been exposed to the virus. The graph below shows the percentage of farms in each area at the different bulk milk antibody levels, in the 2021/22 season:



The antibody levels above give a snapshot at a point in time, but we can also look at the trends over time to help us assess the exposure of BVD in your herd:

- An increase from last year can suggest more recent exposure to the virus, brought-in animals with BVD exposure, or vaccination. There is an increased risk of BVD in calves.
- A decrease from last year suggests that animals coming into your herd have had a lower exposure to BVD than the rest of your herd.

These are the changes in BVD antibody levels for Clutha Vets dairy farms between seasons:



Each vertical line represents an individual herd's result... and if there has been an increase or decrease in antibody levels compared with last year. Most farms are in the middle, with only a small change up or down, that probably just reflects sample variation. We can read more into the bigger changes at either end of the graph. The red lines are for herds where we have either found BVD virus in the bulk milk, or calves – an indication that the BVD infection is active within a herd, as indicated by a noticeable rise in bulk milk antibody. This demonstrates the importance of bulk milk antibody as an early warning system for BVD's arrival, and the need to keep monitoring, every year, to limit the impacts of the disease on your herd's health and production.

Shopping check list for July

Metabolics	Quantity	Electrolytes	Quantity	Minerals	Quantity
				Required	
Glucalphos	_____	Diarrest Sachet	_____	Springer Mix	_____
Calpro 375	_____	Revive Sachet	_____	Clutha Vet Trace 200lt	_____
Calpromag	_____	Enerlect	_____	Agvance Minerals	_____
Mag Sulphate 20%	_____	Biopect	_____	Rumenox	_____
Dextrose 40%	_____			LSD Liquid	_____
Blue Cross 4in1	_____			Multimin or MarksMin	_____
				Selovin 5 Inj	_____
				Vijec B12/Se	_____
Oral Tonics		Disinfectants		Tail Paint	
Calpro Bolus	_____	Vetacide 1 & 5lt	_____	Bucket 10l R/G/O/B/Y	_____
Rumetrace Bolus	_____	Sterigene 2 & 5lt	_____	Applicators 1lt	_____
Calol 400ml	_____	Vetsan 1, 5, 10lt	_____	Aerosol R_ G_ O_ B_ Y_ P_	_____
Bovisal Pearls 500ml	_____	Virkon 50gm—5kg	_____		
Triple Mix 5lt, 20lt	_____	Stalosan F 15kg	_____		
Jumpstart 1lt, 20lt	_____			Sundries	
Ketol Xtra 2lt 5lt	_____	Calf Shed Products		Gloves Shoulder	_____
Keto Aid 5lt	_____	Brix meter	_____	Gloves Milking size__	_____
		Iodine Spray 10% 750ml/5lt	_____	Syringes 3_ 5_ 10_ 20_ 35__	_____
		Antahi Stomach tuber	_____	Needles 16x1” ___18x1”___	_____
		Rotagen Type:_____	_____	Emollient Salve	_____
		Calf Cover Jute/ Woolover/Antahi	_____	Udder Cream Iodine	_____
		Milk Powder / Meal		Ease A Lube	_____
		Milligans CMR 20kg	_____	Lube Pump	_____
		Go Calf 20kg	_____	Calving chains/ropes	_____
		Go Calf Whey 20kg	_____	Tail Trimming Scissors	_____
		Sprayfo Blue Whey	_____	Cow Cover Jute size__	_____
		Clutha Calf Meal 25kg	_____	RMT Solution 1lt 5lt	_____
		Optiguard 20kg	_____		
		Bentonite 25kg	_____	Other	
		Colostrum Keeper 2kg	_____	_____	_____
		Colostrum Excel	_____	_____	_____
		Launchpad Colostrum	_____	_____	_____
		Adult Cattle Drenches		_____	_____
		Eprinex Pour On #of cows__	_____		
		Cydectin Pour On #of cows__	_____		

The best heifers!

Each year, our team of dedicated technicians, who spend much of the autumn and early winter teatsealing heifers, take pleasure in reflecting on which parts of each job went well, and which not quite so well. They then combine this into the “Teatseal Awards” to recognise the clients, jobs, and heifers that are the “best of the best”. This year’s winners are:

- Best loading ramp: Phil and Anne Neame (a new one, built especially with this job in mind)
- Best morning tea: Bibi and the team at Argyll– Riverview (great BBQ lunch, thanks!)
- Best behaved heifers: Scott and Kate Burgess (it must be the Central Otago holiday that relaxed them!)

Congratulations. Call in to one of the stores to pick up your choccie prize!