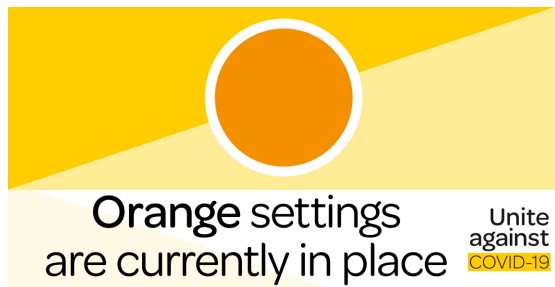


Dairy News

We wish everyone a very Merry Christmas, a relaxing festive season, and a Happy New Year full of excitement and possibility. Stay safe, bring on 2022!



We will tend to your animals, and visit your property regardless of your vaccination status, however there are measures in place to protect ourselves, you and your team during Covid-19: Orange.

Please ensure you:

- Let us know if you are unwell prior to our visit
- Adhere to physical distance requirements
- Continue to practice good hygiene

If you need to visit the clinic at any time to pick up products from the retail area, please call first and let someone know you are coming, this way they can have everything ready for you. Your vaccination status is not a condition of entry to our retail area, however we do ask you adhere to clinic guidelines and:

- Scan in when you arrive
- Wear your mask correctly, completely covering your mouth and nose
- Adhere to physical distance requirements which will be displayed in clinic where appropriate

Note: the above conditions are subject to change at any time.



Rangiora Vet Centre - Farming

Unfortunately this year we're not going to be able to celebrate Christmas with everyone in person - so we thought we'd have a little *** COMPETITION *** Festive theme of course 🌲🌲🌲

We encourage you to decorate the supply # at your farm entrance and add a pic in the comments of this post on our facebook page.

The winner will be the one with the most likes - so share, get your friends and family to like your festive supply # and be in to win a family gift hamper 🌲🎁🌲 of goodies.

Competition ends Monday 13 December. Winner will be notified on Tuesday 14th December.

24hr/7day emergency care available by phoning 03 313 7438

Cnr Lehmans & Oxford Rds, (181 Lehmans Rd), Rangiora
www.rangioravetcentre.co.nz Em: rangvet@rangvet.co.nz

By Colin Cromie

Calf Weaning

It is the time of year when many recently weaned calves are relocating to grazing blocks. Relocation can result in growth checks or be a trigger for other animal health issues including pneumonia, scouring and parasites. Recently weaned calves are at particular risk as they are also undergoing changes in diet, rumen development and are usually younger in age. A few criteria to consider for relocating recently weaned calves include:

- Fully weaned and off milk for at least two weeks
- Meet their minimum weight target for their age
- Transitioned onto a full pasture diet or supplement provided for transition
- Competing and coping well within the group
- Drenched and vaccinated
- In good health

There are also a few specific diseases to watch out for:

Pinkeye: We are coming up to the Pink Eye season in calves. In most cases a single dose of Piliguard vaccine given 3-6 weeks before the risk period will significantly reduce the risk of an outbreak.

Thiamine/Vitamin B1 deficiency: This nervous condition of calves is one of the most common disease of calves that we see over the summer months. It is considered to be associated with a change of diet from a fibrous stalky to a lush, rapidly growing grass diet. High sulphur intakes have also been incriminated. Calves show nervous signs including:

- Blindness
- Staggering
- Muscle tremors
- Becoming unable to stand with neck and head arched right back
- Seizures and death

We traditionally see cases from late November, peaking late Dec/early Jan. Individual calves, if treated early enough with injectable Vitamin B1, respond well and make a full recovery. In the face of an 'outbreak', it is well worth considering the prophylactic use of an oral drench of Vitamin B1, for the entire mob of calves.



Calf Rearer of the year awards 2021

First of all, we would like to thank everybody who nominated or entered this year's awards. We have had a noticeable increase in popularity from last year, which is great!

We feel calf rearing is an extremely important part of dairy farming and that until recently, has not been fully appreciated. The research is clearly demonstrating that better calves = better dairy cows = more milk in the vat!

Not that productivity is the sole reason calf rearers do the wonders they do. They do it to achieve healthy, vibrant calves, by putting in an enormous amount of work and effort.

With the increase in popularity and to base the selection on hard data, we changed the procedure for this year's awards. Out of the nominees, five farms with the top Failure of Passive transfer results received a visit from myself and Kurt from MSD for judging.

It certainly was a tough task to separate out the finalists! All of them had impeccable hygiene, fantastic looking calves, and next to no issues with disease. Massive congratulations to you all, on your fantastic achievements. Needless to say, making the decision for this year's winners, really meant we had to nitpick through all the details.



Honourable mention must also go to Jess Maaka and Jo Spencer-Bower at Claxby farms, above, as well as Glenn and Kirsty Prattley at Wychwood.

Kirsty Prattley at Wychwood pictured below with Tristan from RVC and Kurt from MSD Animal Health.



WINNER 2021 CALF REARER OF THE YEAR
Philippa Trounce from Eyrewell Dairy, Waipapa Farm.



2nd=: The quality of the calf rearers were so close this year, we could not separate out a runner up, this was shared by Amy Schouten from Schouten Dairies pictured above, and Carine Joubert at Landcorp, Waimak Farm, pictured below.



Submission rate summary for year to date

The 3-week submission rate is the percentage of cows that received at least one insemination in the first 3 weeks of the mating period. Together with conception rate 3-week submission rate are the key drivers of achieving a high 6-week in-calf rate. Top farmers achieve 3-week submission rates of approx. 90% and if this figure is less than 81% it is recommended you seek immediate professional advice to assist you in taking corrective action in the short and long term.

So how has everyone gone this season?

The graph shows the submission rate of our clients that use Infovet, 37 herds in total. The average 3-week submission rate for these herds was 81%. Overall submission rates are up by 1% for our clinic since last year, with 11% having reached or exceeded the Dairy NZ target of 90% and 73% of our Infovet users above the NZ average!!!

In our opinion the most important factor contributing to increased submission rates is overall body condition score. The next indicators to look for to check how your mating season is going is the Non-Return Rate. The non-return rate is used to estimate the conception rate. It tells you the percentage of cows that were mated more than 24 days ago and have not been detected on heat since. Conception rate and non-return rate are unfortunately not the same thing. After a cow has been inseminated one of the following will happen:

- The cow becomes pregnant and does not come back on heat. On average about 53% of inseminations are successful.

OR

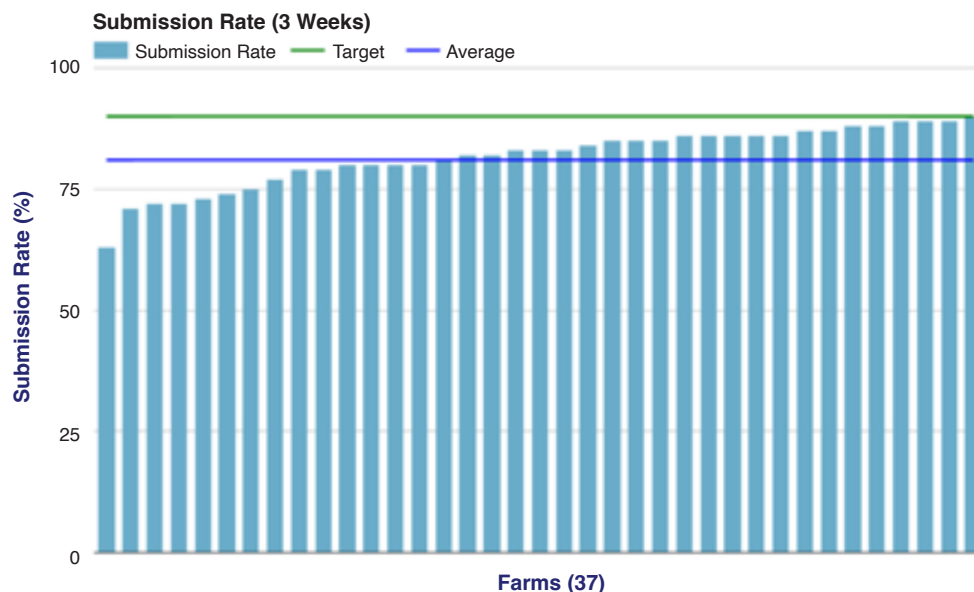
- The cow stays empty and comes back on heat 18–24 days later.

It would be nice if all cows did one of these, then the non-return rate would be an accurate indicator of conception rate. However, the absence of heat doesn't necessarily mean that a cow is pregnant. Unfortunately, cows will try and trick us or we try and trick ourselves.

- Sometimes cows are empty and either we miss the heat, or the cow won't express the heat (or will express a very weak heat)
- Others will become pregnant but will later lose the embryo and may or may not come back on heat 4 or more weeks later.
- Other cows will not become pregnant but will not cycle again (phantom cows)
- Some cows may become pregnant but still show signs of heat at some stage.

These points mean that the conception rate is almost always lower than the non-return rate. Conception rate is typically about 10% lower than non-return rate. Alarm bells should ring if the non-return rate is less than 64%. Non-return rates can only be accurately assessed once two full cycles of mating have been completed.

If you have any concerns, please get in touch with one of our vets.



By Tristan Kamps

Early Aged Pregnancy Testing

Getting on towards Christmas and that means it's pregnancy testing season!!

Of course, everyone is aware of the great benefits of early aged pregnancy testing (12 to 15 weeks after planned start of mating), these benefits include:

• **Providing information for strategic dry off dates:**

Organizing your tail end of season early, you can decide to milk later calving cows longer. Lactating cows eat approx. 6kg DM a day more than dry cows. At, for example, 30cents/kg DM this is \$1.80/day; a cost far outweighed by milk in the vat.

Your later calving cows will likely be the highest producers in the herd later in the season.

• **Early culling decisions:**

After the first scan, you can identify cows that are not detectably pregnant i.e. rechecks. These cows will either be empty or late calving cows, so you can consider culling any older, low producers earlier before the cull cow price drops and any significant dry conditions arrive

• **Manage body condition and late lactation feeding:**

Set your cows up better for next season. Heavily pregnant cows (the early calving cows) take longer to eat their daily ration and can't compete with the later calving cows towards the end of the season. The end result is earlier calving cows tend to be lighter and later calving cows are often too fat at calving.

• **Efficiencies during the dry period:**

- Formation of wintering groups for tailored feeding
- Feed budgeting for the winter period and early lactation
- Efficiency in time and transport logistics of cows from run-off back to milking platform
- Allocating cows to the springer mob is easy and accurate when you have calving dates for every animal

A detailed reproductive analysis will help to find where continued future improvements can be made:

- Your 6-week in-calf rate is the most powerful and useful indicator of reproductive performance.
- Early scanning helps you to identify areas where you are performing well, and also sheds light on aspects where there is room for improvement.
- You can also assess the impact of any management changes you may have made.
- Value for money!!! Valuable information received early for little extra cost. In a herd with a 6-week in-calf rate of 70% you would expect to have only 20% of the herd needing to be rescanned depending on the timing of scanning and the length of mating.

Talk to one of our large animal vets today to book in your early scan and get the most value for money!

Enjoy a delicious ham on the bone or boneless leg ham this festive season when you purchase:

Eclipse E B12 Selenium 500ml x 2

Between 20 Nov - 20 Dec 2021

Give Colin a call on 027 333 8989



By John Spearpoint

Photos courtesy Dairy NZ

Teat condition is udderly important

Regular monitoring of teat condition is a useful tool for assessing the milking routine and milking machine operation. But often this can be overlooked with automatic cup removers and automatic teat sprayers.

With mastitis the biggest health issue facing the dairy industry, teat health becomes a key determinant for good milk quality and preventing udder infections.

Regular teat condition scoring should therefore be considered just as important as body condition scoring and locomotion scoring to keep mastitis rates and somatic cell counts in check.

Poor teat condition is a major risk factor for mastitis

What should I look for as indicators I may have a problem?

There are many changes which can be monitored to provide insight into what is happening during the milking process.

COW BEHAVIOUR

Previous experiences are remembered by cows so observing cows as they enter the shed/bale may provide insight into recent milking experiences. Once they are standing on the platform or in-shed observe for signs of shifting feet, stomping, kicking cups off early, or delays in milk let down as this could indicate they are uncomfortable. Being agitated after cups-off may also indicate uncomfortableness and possible teat damage.

TEAT SKIN CONDITION

Teat skin condition is one of the cow's major defences against mastitis providing an essential barrier against bacterial invasion. Broken skin, cracking, chapping, and rough skin harbours more pathogenic bacteria, allowing colonisation of mastitis causing bacteria such as *Staph aureus*. Dirty teats are also prone to problems as mud strips away protective oils and moisture from the skin with a consequent loss of skin elasticity.

Evaluate the skin by lightly rubbing the teat surface with a finger and classifying as either normal (smooth, soft, supple), dry (scaly, rough, no cracking) or with open lesions. Dryness can be accelerated in cold or windy conditions and the presence of chapping may indicate poor teat spraying technique or inadequate proportions of emollient. Cows with dry and badly cracked skin are often slow milkers and the increased time with cups on can lead to more teat damage.



TEAT ENDS – OPENNESS OF THE TEAT ORIFICE

Teat end condition should be assessed within 1 minute of cluster removal and before teat spraying. A closed teat end orifice is particularly important as this forms a critical barrier to prevent bacteria responsible for causing mastitis from entering the udder. Post-milking openness of the teat orifice (about the size of a match stitch, >2mm in size) can be linked to high vacuum pressures, overmilking, heavy cluster weight or liner tension.

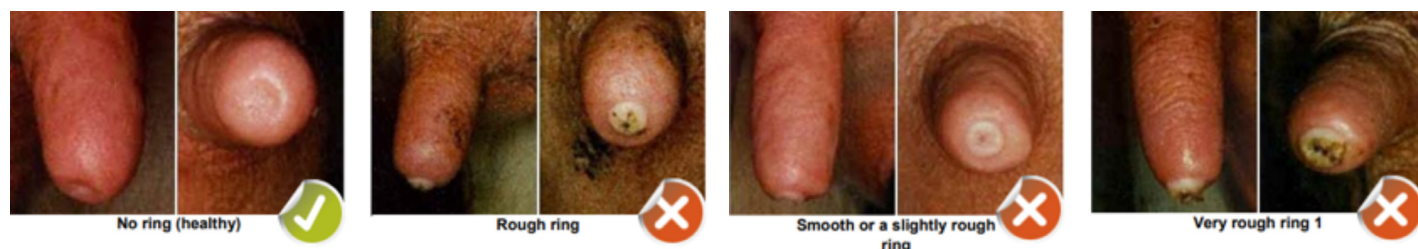
TEAT ENDS - HYPERKERATOSIS

Milking machine induced teat damage commonly occurs at the ends of teats and appears as roughness or a callous. The skin's natural mechanism against regular damage is to thicken by producing extra layers of protective keratin in a process called hyperkeratosis. Low levels of hyperkeratosis appear as smooth rings and are a normal response to machine milking, but increased hyperkeratosis is associated with increased risk of intramammary infection.

Rough teat ends with cracks and pits provides a place for bacteria to survive and multiply outside the udder with close proximity to the teat orifice. Rough teat ends also alters skin elasticity around the teat opening and can hamper teat closure after milking. Skin thickening can also extend up the teat canal increasing the risk of new infection.

The degree of hyperkeratosis correlates to the degree of mechanical force placed on the teat while the cups are on. Some factors may include high vacuum pressure, prolonged overmilking, incorrectly set threshold for automatic cluster removal.

Assess for teat end damage around the teat opening. No rings or slightly raised smooth rings are acceptable, with the target of <20%. Roughened raised rings indicates a breakdown in skin integrity and is worthy of investigation.



SWELLING AT OR NEAR THE BASE OF TEATS – RINGING

A visible line, thickened ring or swelling above the level of the liner mouthpiece may indicate high vacuum pressure, overmilking or teat cup crawl.



TEAT FIRMNESS/HARDNESS

Teats should feel soft and compliant after milking. Swollen, hard or firm teats or flattening at the teat end (wedging) indicates milking induced changes.

Regular checks of teat condition are recommended to pickup and identify emerging issues and to take action.

TEAT COLOUR AT THE END OF MILKING

Red or blue discolouration on the teat surface after cluster removal may point to problems with blood supply to the teat while the cups are on.

Red bruising or blood spots/blisters typically indicates damage to blood vessels, while blueness may indicate blood flow has been cut-off. Possible causes include high milking vacuum pressure, prolonged overmilking, pulsation failure or incompatible liner/shell.



TEAT LESIONS

Any open lesions can harbour contagious pathogens such as *Staph aureus* but also cause pain and discomfort for the cow during milking.

Sores or lesions on teats may also be due to infectious causes such as viral and bacterial infections and should be isolated from the milking herd and milked last to reduce of further spread to healthy cows. Some lesions can be contagious to humans so wearing gloves and disinfection is recommended.

Targets	Skin condition	>95% supple	Assessing 50 cows once a month as an early indicator of problems
	Teat end damage	>90% normal	

TEAT SPRAY COVERAGE

Post-milking teat disinfection aims to kill bacteria that may have been transferred onto the teat surface during the milking process before they have the chance to enter the udder via the teat orifice. So, it stands to reason, teat disinfection will only be effective if it covers the entire teat. Teat spraying the entire teat surface is particularly important to contain contagious bacteria such as *Staph aureus* and *Strep agalactiae*.

Teat spray coverage can be checked using a paper towel wrapped around each teat to see if all the surface of the teat has been sprayed. Each cow should be receiving at least 20mL per milking for good coverage. Improving spray coverage may require an adjustment to manual techniques or recalibration of the automatic spray unit.



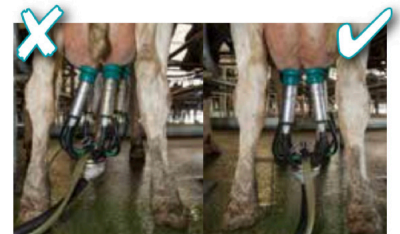
TEAT SPRAY MIXES

An accurate ratio of teat spray, emollient and water is a critical factor for maintaining teat softness. Emollients such as glycerine are effectively moisturisers/conditioners to maintain suppleness of teat skin, taking moisture from the air and trapping it on the skin surface to allow rehydration. Emollient concentrations should be determined once water has been added to the mixture and adding extra to achieve a concentration of 12-16%. It's important not to take a one-size-fits-all approach or to switch to seasonal mixes, but rather be guided by what the teats are telling you.

CLUSTER ALIGNMENT & LINER SLIP (SQUEAKS)

Incorrectly aligned cups can lead to uneven milking out.

Liner slip, sudden fluctuations in vacuum, or rough removal of teat cups can result in the reverse upwards flow of milk when air enters, increasing the risk of spreading mastitis-causing bacteria.



Our team can perform teat condition scoring and a milking machine assessment during milking to identify issues.

2 visits are required

Visit 1: Mastitis risk assessment + teat scoring during milking, with recommendations

Visit 2: 1 month later to review effectiveness of changes

Note: routine milking machine tests are designed to check for leaks and are usually performed when the machine is not under load and generally do not take into account current cow teat condition.

By John Spearpoint

Coughing Cattle

At this time of year and throughout summer, if you have animals on pasture coughing you should be suspicious of lungworm. Mobs of young calves can be severely affected due to reduced immunity and exposure to high larval loads on pasture, particularly if the same grazing area has been used for growing youngstock in the past.

Like intestinal worms, lungworm larvae are ingested from pasture, but then migrate from the intestines, travel through the bloodstream to the lungs where eggs are coughed up or swallowed and excreted into faeces. Lungworm larvae can survive for a long time on pasture and their spread is facilitated by attaching to fungal spores in mushrooms growing in cow pats. A perfect storm can occur following wet weather, long drenching intervals and if calves are being reared on the same paddocks over multiple years.

How will I know if my cattle are affected with lungworm?

- Frequent coughing, especially after exercise
- Increased breathing rate when resting
- Discharge from nose or drooling
- Extended head and neck or gasping for air
- Reduced milk yield in adult cows
- Sudden death
- Youngstock may continue to eat but have poor coat and condition

Cross section of airways with lungworm >



Post-mortem examinations can be useful to diagnose infection.

If I suspect lungworm infection, what should I do?

Thankfully, 'mectin-based' drenches are highly effective against lungworm and there are no current reports of resistance. Best results are achieved early in the course of disease before structural damage to the lungs occurs and to limit further larval contamination on pasture. The choice of product depends on duration of action and ease of administration.

Clinical signs may worsen after drenching as killed worms accumulate and block airflow in airways.

Also consider:

- Removal from affected pasture
- Anti-inflammatories are useful to reduce the reaction to larvae in severe cases
- Severely affected calves may need re-hydration

YOUNGSTOCK

Oral drenching options



Ivermatrix (*Ivermectin, Levamisole, Oxfendazole*) + B12 + selenium A good safe option for calves under 120kg.

Dose rate: 1mL/10kg, given orally



Turbo Initial (*Eprinomectin, Levamisole, Diclazuril*) + cobalt + selenium. Provides cover against intestinal parasites plus protects against coccidia.

A good safe option for weaned calves grazing on pasture and coming off coccidiostat-treated meal before they develop immunity to coccidia.

Dose rate: 1mL/10kg, given orally



Eclipse E (*Eprinomectin, Levamisole*), available with B12 + selenium. Levamisole targets *Cooperia* worms while Eprinomectin is particularly good at killing *Ostertagia*, so the two active ingredients will kill the two most important parasites in young calves. Provides persistent activity against lungworm.

Dose rate: 1mL/35kg, given under the skin

Regular drenching intervals for youngstock is important for lungworm control

ADULT CATTLE

Pour-on options

Most 'mectin-based' drenches (eg. Eclipse pour-on, Eprinex, Arrest C) are effective against adult and immature stages of lungworm but will not have persistent activity against subsequent pasture challenge.



Injectable options

Dectomax (*Doramectin*) Provides persistent activity against infection and recommended for outbreak situations.

Dose rate: 1mL/50kg, given under the skin