APRIL 2023

Veterinary Centre
MoozNews

Fodder Beet Feeding in Late Lactation

Mat O'Sullivan BVSc – **VETERINARY CENTRE** Oamaru

Feeding up to 5-6kg of Fodder beet in late lactation has multiple benefits.

- It allows the round to be extended, with a relatively cheap supplement.
- Is very good for encouraging condition gain.
- Cows are partially transitioned before heading off farm for the winter

Providing that there is still a significant quality grass portion in the diet (9 kg plus), it is unlikely that at 5-6kg/DM of FB that cows will be protein deprived. However, at 5-6kg of FB in the diet, a lactating cow still producing 1.7kg of MS will be in a negative balance for Calcium. She will be drawing on bone stores and have a higher chance of clinical milk fever. Calcium supplementation (~150g lime-flour cow/day) is important to maintain health and production and reduce bone calcium exhaustion before the next lactation. Cows that have a large proportion of Fodder Beet or Maize in the diet in late lactation and over the winter are at higher risk of milk fever in the spring.

One problem that we repeatedly see with FB transition is the creation of space for cows to get onto the crop. Creating a headland in the crop by using a Beet bucket and feeding this in the paddock initially works very well. Once on a crop, a herd needs 1 linear metre/cow on the face and 6 square metres (minimum) of room/cow on the headland.

Cows should start on an allocation of not more than 1-2kg/cow/day. Maintain this for 3 days until **all** cows are eating and then increase by 1kg every second day. Cows are best to go onto the crop hungry to encourage shy eaters.

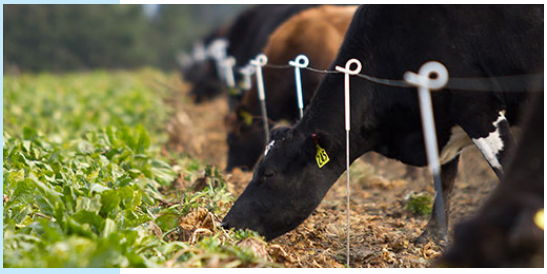
Train the cows to stay and eat their allocation. Even if most is eaten in 20 minutes, cows should stay on the break for 2-3 hours so they **all** learn that they need to eat. By doing this you will break the habit of those cows which do not eat the beet but stand at the gate anticipating a quick shift back onto grass.

Using an 'increasing time allocation technique' and using a big, long break (6-7m2/cow) to enter a paddock can be risky. Those that use it usually start with 15 minutes (precisely!) and increase the time by 5 minutes every 3 days. Once a long headland is established (fully eaten), then move to using accurate measured daily allocations. Use a stop-watch and wait with the cows!

When setting an allocation, it is easiest to calculate if the fence is shifted parallel to the rows. Cows will graze 12-18 inches under the wire so will effectively always be eating the next row.

Never allow beet to build up in a break. You have over allocated and need to pull back. Day 7-10 on crop is where problems often occur when cows will suddenly click and eat the accumulated surplus.

You must accurately measure your crop yield to enable to accurate per cow allocation!



In this Issue

Balancing the Winter Ration

Mat O'Sullivan BVSc
VETERINARY CENTRE Oamaru

To ensure a successful outcome to cow wintering, consideration needs to be made around cow requirements for energy, protein and minerals (Ca, P and Na). Knowing the content of the diet, the proportions to be fed and the likely utilisation will enable you to fine tune where required. A dry cow needs a minimum of 10-11% crude protein and this increases to 16% as she nears calving.

Last year our practice did a large amount of feed testing on Fodder Beet crops. The range and variation in protein and macro-mineral content was enormous. A very low crude protein/calcium FB crop coupled with a low protein/calcium cereal/maize silage will not adequately support a pregnant cow or set her up for the following lactation (and reproductive season).

A large part of the protein and calcium in a fodder beet plant is held in the leaf. Although the leaf yield in most crops is looking good right now, as they exhaust soil of nitrogen and potassium reserves this may lead to leave senescence (die back of exterior leaves to pull reserves into the bulb). Consider the late applications of around 50 units of N and K/hectare to maintain the green leaf mass.

Look to get your winter diet tested now to provide time to make tweaks with supplement matches if these are required. Contact your Prime Vet about collection, testing and diet balancing.

Collar Fertility Review Reports 2022/23

Ryan Luckman BVSc (Dist) MANZCVS (Epidemiology) – **VETERINARY CENTRE** Waimate

There are a number of tools available that we have used for our traditional Repro Review consults with farmers. Things like Fertility Focus Reports, Infovet Graphs, Milk Protein Data, and Animal Health data offer a valuable insight into potential areas of improvement or success on farms.

The uptake of Allflex Collars in the practice has meant a huge growth in the data we can assess or analyse when doing these Repro Reviews. At the Vet Centre, we're always exploring opportunities to compile and present farm data in innovative ways for informed decision making. Last year we launched our first version of these reports. We recently sought farmer feedback on how we could improve these, and based on this, we've condensed and redesigned these into a novel format incorporating both Allflex & Infovet data.

Building on InCalf concepts we've produced two reports:

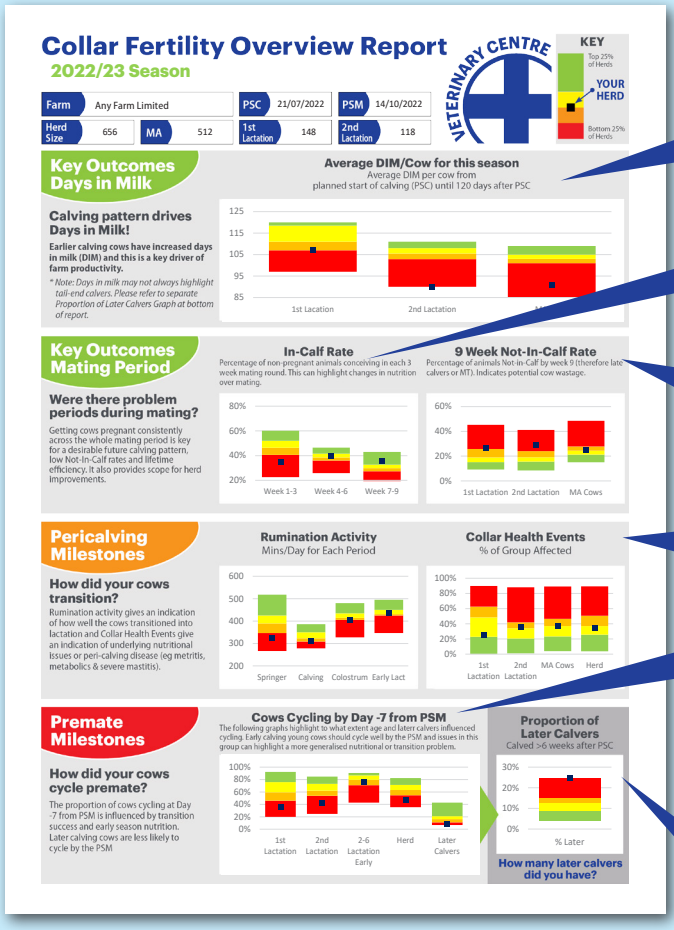
1. **Collar Fertility Overview Report**
2. **Collar Fertility Details Report**

The Overview report focuses on your Herd's most relevant performance parameters and benchmarks these against our local client base to highlight critical outcomes and seasonal milestones. The second more detailed report then allows farmers and their Prime Vet to explore any issues in more detail by tracking changes over time and highlighting potential solutions.

One of the great things about these reports is that the findings we are seeing within collar farms are often highly applicable across non-collar farms. As a clinic they are giving us better evidence to support advice that we have been giving, and more importantly offering insight into areas we haven't ventured before.

Collar farmers should have received an email outlining the offering. If you've missed it get in touch with your Prime Vet to discuss the report package ($400 for the two reports). We would also recommend booking in a consult to go over the data and how it can be used to improve your performance next season. If you don't have collars we'd still encourage you to discuss the reports with your Prime Vet at your own Repro Review to see if there may be application of some of the findings in your situation.

Overview Report Example



Days in Milk is a fundamental driver of productivity – how did age groups perform?

How consistent were InCalf Rates in each mating round?

After 3 rounds of mating what are the potential age group losses?

How successful was Herd transition and what was the impact on cow health?

How well did cows cycle naturally prior to PSM as measured across 5 key groups?

Were the non-cyclers primarily due to later calvers, age group or due to a wider issue across the Herd?

Detailed Report Example (Mating Period)

Four page report spanning Pericalving, Pre-mate and Mating periods.

Did the proportion of cows submitted and conceiving vary week-by-week? If there was a trend was it age related?

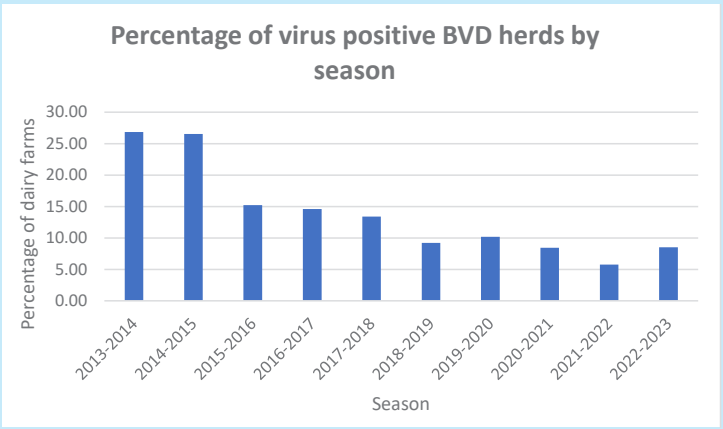
What does remunination and bulk milk data tell us about the energy status of the herd over that same period?

And with the critical final Not-in-Calf mob what trends can we see? Was this driven by non-cyclers? Was a high Phantom rate a factor? Were there drafting errors? etc

BVD Bulletin

Andrew Muir BVSc BSc (Hons)
VETERINARY CENTRE Oamaru

223 sheds have tested their bulk milk tank for BVD virus this season. Of these, 19 went positive, which at 8.5% of farms is a slight increase on last season (see graph below). As of now only 1 of these farms is still infected with virus in their milking cows, the rest have eliminated it.



Interestingly when we look back at last season 5 of the 19 farms were positive as well, before they eliminated it. The other 14 farms were negative for all of last season, which means that about 6% of sheds in the area have gone from negative to positive in a season. This is higher than the current rate for NZ herds of about 3.5%. What this means is that just because you test negative doesn't mean you will test negative in following seasons, especially if you aren't testing young stock coming into the herd. At this rate you would expect to become infected about every 16 years.

To reduce the consequences of BVD entering the milking herd a number of farms have moved to the Status pack. The pack tests every cow at herd testing that doesn't have a negative BVD result recorded next to her in MINDA. This means that if there is a PI in your herd they are found quickly before mating starts. If you want to discuss more about the status packs talk to your prime vet.

Copper Complacency

Luke Smyth BVSc – **VETERINARY CENTRE** Oamaru

Over the last 10-12 years a level of complacency has developed around copper deficiency and the need to supplement. This has come about largely through the feeding of palm kernel. PKE has been a great supplementary feed source and it has the bonus of being high in the trace element copper.

However, the replacement R1's & R2's are away from the milking platform where they are fed a mostly pasture or crop-based diet depending on the season. Replacements, therefore, are at far higher risk of developing Cu deficiency than a milking herd being fed PKE through the season.

The extent of this problem was investigated several years ago when our practice conducted some basic surveillance work looking at copper levels in rising two-year-olds at grazing. We found that over 80% of R2 mobs sampled had individual animals deficient in copper.

Before disregarding the need to supplement copper in R1's and R2's consider the following points:

- Copper levels are at their lowest in late winter/early spring. This coincides with higher copper demands over this period for late pregnancy and early lactation.
- First calving heifers are often slow to start eating PKE in the shed unless they have been fed it as calves. So, feeding PKE can be an unreliable way of supplementing copper to these animals.
- Humeral fractures are a major issue on individual farms and a significant animal welfare problem. While copper supplementation is not the silver bullet to stopping their occurrence it is a key part of the prevention strategy.

The optimal time to supplement Copper in R1's and R2's is mid-late autumn before animals go onto winter crop.

Options to supplement Copper in R1's and R2's:

- Coppermax and Copaject injection. This can be safely given to cattle over 4 months of age. A 2ml dose is given under the skin of the neck. The dosage may be increased up to a maximum of 4ml if severe copper deficiency has been confirmed through liver biopsies.
- Copper bullets. These are given orally and contain copper oxide wire particles in gelatine capsules. Typically, a R1 would be given a 10 or 20g capsule and a R2 a 30 or 36g capsule depending on liveweight.

To establish the true copper status of a milking herd 5 liver biopsies are the way to go and we should never assume the copper status of a dairy herd is fine because PKE has been fed during the season. Copper levels will naturally decrease over winter especially if the herd is wintered on crop and the property has no in-line dispenser in the water system.

Whilst blood samples can measure copper levels easily, this only tells us what an animal's copper status is on an individual day. It unfortunately tells us nothing about the animals' copper stores in the liver which is of far greater importance going into winter.

Liver biopsies are quickly and easily performed on farm. Whilst collecting liver samples from cull cows at the freezing works is convenient on farm liver biopsies have several advantages.

- The vet is on farm so can select the animals to be biopsied.
- Accurate animal identification at sampling.
- Clear traceability of samples from collection to reporting.

CopaCaps 10g
ACVM A005259
CopaCaps 20g
ACVM A004945
Copaject
ACVM A011573
CopperMax
ACVM A009469

UdderNews

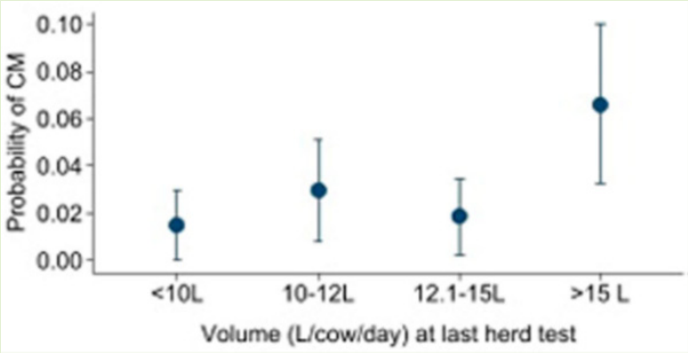
Hamish Newton BVSc PhD – **VETERINARY CENTRE** Oamaru

Planning for a successful dry off

It is now time to at least start thinking about drying off. Things to consider are

- Have you got skinny cows to be dried off early? How will you protect these cows against new infection for duration of what will be a long dry period?
- Do you have cows to be culled based on this year's mastitis records (are your records up to date)?
- What dry cow treatment approach to use at drying off? When did mastitis occur last spring relative to a cow's calving date and when relative to the planned start of calving, were the heifers overrepresented? We need mastitis records to answer these questions.
- Do you have enough staff to dry off in one go or will it better to do it in batches over a period of days?
- How will you start to reduce production prior to abruptly drying off?

There is an association between the volume of milk a cow is producing at the last herd test and her probability of clinical mastitis in the first 60 days of her next lactation.



S McDougall, J Williamson, K Gohary & J Lacy-Hulbert (2022) Risk factors for clinical or subclinical mastitis following infusion of internal teat sealant alone at the end of lactation in cows with low somatic cell counts, New Zealand Veterinary Journal, 70:2, 79-87

Use your April herd test data to identify your highest producers and start to reduce their feed intakes in the seven days prior to dry off to get them closer to 1kgMS. This may be as simple as dropping out in shed feeding.

What will the future bring?

It seems that our ability to prescribe a whole herd antibiotic dry cow therapy (DCT) is likely to be removed or we must meet stricter criteria in the near future. The latest guideline from the Veterinary Council of New Zealand (VCNZ) states we "should not" prescribe blanket (whole herd) antibiotic DCT, and it seems it will only be a matter of time before we are told we can't. For the majority of you this will not require any change as you are already only giving antibiotic dry cow therapy to the cows deemed infected. It is a possibility next season we wont have the option of prescribing whole herd antibiotic DCT without data to explain why selective treatment is not a valid option . If you are still using whole herd DCT, why not this season "give it a go". We can select cows based on well researched, and proven "in the field" criteria, but if you are not comfortable, we can create some very conservative selection criteria so a smaller proportion of your herd gets TeatSeal until you fine tune the logistics and systems required to insert Teatseal effectively. In previous years I have begged for mastitis data to be recorded to allow the selection of cows for selective DCT – it now seems that in the future we will need that data to justify blanket DCT – so please get your data into MINDA.

Cow Culling and Herd Improvement

Mat O'Sullivan BVSc
VETERINARY CENTRE Oamaru

This season the practice average BMSCC has maintained at 146,0000 (exactly the same as last year), despite a wet start to the spring. Two seasons ago the practice average sat at close to 160,000. The Co-operative Difference has continued to be an important driver in keeping this down.

One of the major players in reducing BMSCC is identifying those cows which are likely to be chronically infected and removing these from the herd before the next season.

Many of our clients engage us in identifying and prioritising these cows well before the Milk Quality Consult. This enables planning for works space and consideration of replacement purchases to be made where necessary. Herds with high retention rates of chronic infections will tend to steadily get worse over time and are often the highest users of intramammary drugs. Contact your Prime Vet for assistance.

Business Name	
Region Code & H	
Participant Code	
Report Date	16 March 202
Season	2021

ISCC Results

infovet
information management for veterinarians

Animal Tag	Year Born	17/10/	19/11/	7/01/	5/03/	20/10/	19/11/	7/01/	4/03/	28/10/	12/12/	12/01/	Cull	kgMS	Expected Calving
966	2006	547	1316	1878	2023	1395	2701	1294	1622	1051	1553	20957	Cull	1.24	29/08/2022
979	2007	75	32	34	269	260	35	70	669	74	331	17873	Cull	0.81	MT
164	2013	210	2846	679	953	183	178	195	242	169	597	14049	Cull	2.16	1/10/2022
148	2011	157	170	43	79	12	19	18	20	7869	2105	13618	Cull	1.10	MT
304	2015	23	45	13	14	58	78	84	128	140	50	11734	Cull	1.74	MT
660	2011	74	86	203	186	10	37		199	2036	1761	11515	Cull	1.65	20/09/2022
1420	2018					51	19	20	18	271	11397	10352	Cull	1.27	31/08/2022
1028	2012	12	52	39	47	12	12	11	19	2474	2560	9460	Cull	1.46	1/09/2022
1010	2017	46	85	75	32	46	22	12	59	45	419	8882		1.71	6/09/2022
264	2009	12	19	23	363	152	3333	1361	559	1024	4862	8407	Cull	1.59	17/09/2022
905	2017	16	12	23	58	20	1115	123	15	25	42	7510		1.51	31/08/2022
445	2015	6746	67	190	218	301	29	19	699	25	21	6201		2.03	16/09/2022
488	2013	748	1897	4114	726	175	206	488	459	1710	632	6134	Cull	1.95	6/09/2022
1372	2009	29	25	11945	79	575	542	332	1519	27	30	5757		1.39	7/08/2022
1122	2012	47	941	1719	58	15	11	8	107	592	1888	5189	Cull	1.63	MT
496	2011	179	189	562	201	18	24	20	83	11411	3319	5147	Cull	1.25	11/09/2022
974	2014	28	12474	27	24	25	19	34	365	4139	1953	4848	Cull	1.12	11/08/2022
201	2017	17	55	162	20	242	217	52	29	296	161	4466	Cull	1.32	MT
1212	2017	32	18	9	13	45	137	15	21	257	206	4248		1.98	25/08/2022
486	2011	1978	918	89	2361	8	10	20	588	66	917	4227		1.17	6/08/2022
1085	2009	96	96	85	69	133	237	149	413	62	66	4015		1.69	5/09/2022
1446	2018					12	24	9	24	37	82	3833		1.05	8/09/2022

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Drench Strategies for Autumn

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

Moving into the autumn period, it is time to start thinking about shedding the worm burden your herd has accumulated over the season. During the months of March and April we see the highest seasonal load of larval parasites on pasture.

Using long-acting pour-on products allows you to remove the existing burden, while continuing to control any newly ingested larvae for a period of around 4-5 weeks. Therefore, the optimal time to use the likes of Eprinex or Cydectin would be around mid-April. One area of consideration here though is that if treatment occurs too early in the autumn there may be opportunity for lice to repopulate over the winter/ spring and require retreatment.

As a reminder pour-on products that contain abamectin may no longer be used in lactating cattle (35 day milk withhold). Genesis is no longer available but we do stock an abamectin product which is suitable for treatment of lice and internal worms (little persistent activity) at dry off.

Eprinex ACVM A007191 | Cydectin ACVM A006203

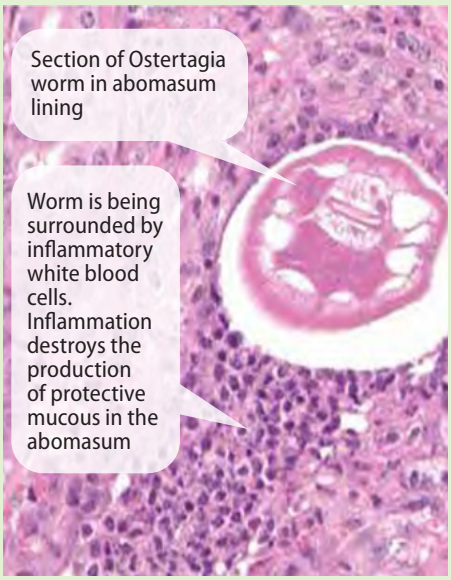
Case follow-up
Internal Parasites in Young Stock

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

Last month we detailed a case of a large-scale outbreak of disease (and deaths) due to internal worms. Cultures of the worm eggs from the affected calves grew an almost pure population of Ostertagia. This worm species presides in the 4th stomach (abomasum) and causes large amounts of damage in modest numbers. To put in perspective a few thousand of these worms would be enough to kill a calf, but their total biomass could fit into a quarter of a test tube.

The calves in the case responded well to treatment with Eclipse and had no eggs present in faeces 12 days later. They now have a good appetite and gut fill, but will take some time to regain body mass. We elected to treat them with Cydectin at the 3-week mark. Cydectin and Eprinex both have the longest continuous period of kill for Ostertagia (about 4 weeks), which make them a good choice where there is suspected to be a high build up of larvae in the pasture.

The hit from the worms in this case did however have one unfortunate hangover. About 2 weeks after the initial outbreak another 4 calves died suddenly. Investigation confirmed it was caused by Adenovirus. Adenovirus commonly moves through a population of calves with little measurable impact but for a few it causes havoc. Calves develop a very high temp, cough and scour and may succumb within 48 hours. A weakened immune system from worms forms a common history in adenovirus deaths.



Six Week In-Calf Rate (ICR)

We missed two ...

Congratulations to an additional two farms that made March's Six-Week In-Calf-Rate (ICR)

ROLL OF HONOUR

Nick & Kate Webster
Mickey Todd and
Sarah Smart (Manager)
from Hillbrook Dairies

76%

David Legg
Terry & Shayna Wells (Manager)
from Seamist Dairies

75%

An epic day preg testing for our vet, Gwyneth Mark in Omarama.

Nitrate Toxicity – Nitrate Testing Kits

Ewan Penny BVMS – VETERINARY CENTRE Waimate

Be wary of toxic levels of nitrates in winter crops, especially brassicas i.e. kale, particularly in areas which have had recent rainfall after a prolonged dry spell.

Rain after drought results in rapid plant growth, therefore high nitrate uptake by the plant. If plants haven't had enough time to process these high volumes of nitrates into ruminant friendly proteins, toxicity will result. Cold weather will also reduce a plant's nitrate processing abilities.

Signs include: staggering, muscle tremors, rapid breathing, inability to stand and death. Please phone us if you see any of these. Cattle are most susceptible to this, especially pregnant cattle.

Testing should be carried out prior to and during grazing. Nitrate levels can increase after grazing has started, so new breaks should also be tested. Leaves vs. bulbs/stems can have two different results, so it is helpful to test both. When nitrate levels are "risky";

- Feed out baleage before giving a new break – cows with a full stomach won't gorge on crop so much this way.
- Check stock 1-2 hours after putting onto crop/a new break – signs of toxicity should start to appear in this time frame.
- Restrict access – feed for only an hour at a time until nitrate levels are more acceptable.

Nitrate Levels of Grazing Crops	
0-50mg/ml	Safe to feed
50-100mg/ml	Use cautiously - see steps above.
>100mg/ml	Do not feed. Re-test in 7 days.

Nitrate Test Kit
$198.40
Incl GST

Heifer HINTS

TEATSEAL

Check teats and quarters

While you are cleaning the teat ends, take the time to palpate the quarters. It is normal to find swollen quarters in one in every hundred heifers.

- If swollen, strip the quarter to assess.
- If a quarter has clinical mastitis, DO NOT INFUSE WITH TEATSEAL. Record the heifer and administer a lactating cow antibiotic treatment.

The opening of the teat canal may be hard to find in heifers. Squeeze the quarter to eject a little udder secretion to identify the opening, then re-clean and infuse the Teatseal. It is normal to find 1% of heifers have a blind quarter. Record the heifer and quarter for future reference.

ACVM A007294

teatseal

Our skilled teat sealing teams will be out visiting your heifers soon!

Book today!

We've got teams covering the Waitaki District, South Canterbury and Maniototo ... looking after your dairy herds!

Call 0800 VET 111 (0800 838 111)

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