



# MOOZNEWS



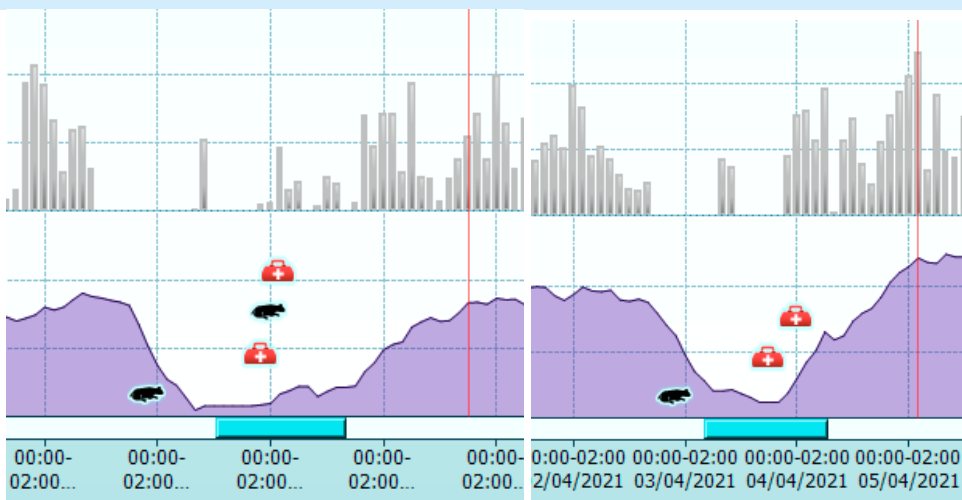
## Fodderbeet – Rumination after an Acidosis Event

Ryan Luckman BVSc.  
Waimate Veterinary Centre

Most people who have fed fodder-beet will have had the unfortunate experience of cows pushing over a wire and wrecking your best laid transition plans. The following rumination graphs come from an Allflex Collar farm that suffered a break-out during transition onto fodder-beet on the milking platform this Autumn.

Note that in this outbreak only a few animals presented as downer cows – it was mainly a subclinical issue. Despite that, the rumination rates in many of these cows took 24-48 hours to recover, with a complete absence of rumination for up to 20 hours!

While this farmer could monitor his cows' recovery from the computer, it is a reminder for anyone who has an acidosis mishap over winter to actively check ALL cows are eating after the event. In some cases severely



affected cows will need to be removed from the beet (they won't touch it) and be put onto grass or kale for the remainder of the winter.



## Calculating Cow Feed Requirements over the Dry Period

Mat O'Sullivan BVSc.  
Waimate Veterinary Centre

The average cow in our area will spend about 65 days off the dairy platform over the dry period.

During the dry period there are four components of energy requirements that need to be factored to calculate daily requirements: maintenance, pregnancy, condition gain and inclement weather.

Knowing the stage of pregnancy of a wintering mob and the required condition gain to attain

Maintenance (500kg)	60MJME
Weight gain requires (dry cow)	72MJME/kg body weight gain
Weight loss provides	30MJME/day
1BCS in a 500kg animal	33kg BW = 2370MJME
Pregnancy demand – 12 weeks from due date	13MJME/day
Pregnancy demand – 8 weeks from due	23MJME/day
Pregnancy demand – 4 weeks from due date	41MJME/day
Pregnancy demand – 2 weeks from due date	54MJME/day
Cold wet weather	5-20MJME/day

target at calving are critical to setting up a feed budget and attaining goals.

A mob of cows that requires no condition gain (i.e. they are already at condition score five), requires an average 100MJME/day (down the throat) over a mild winter. Whereas a mob of light cows at condition score 4.0 looking to gain 1 BCS will require 140MJME/day (i.e. 40% more allocation). Always be realistic about utilisation and be smart about feeding supplements to maximise it. Silage and kale utilisation in wet weather may at times be less than 50%.

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# Growing Great Heifers

Recent New Zealand research has shown that not only are many of our heifers not meeting their weight targets, but that not meeting these targets can have a large impact on their lifetime productivity (Handcock et al. 2020). Calves which were below target weights produced significantly less than those that met target weights, with a nearly linear increase in milk yield as first calvers as weights went up, regardless of breed. We are lucky in New Zealand to avoid many of the challenging diseases seen in young calves, however we still see significant scours outbreaks. Once an outbreak occurs, it can be very difficult to manage, so often many calves will die and those that survive will struggle to meet weight targets. For this reason, we recommend vaccination to help prevent disease in the first place.

Scours vaccination is a two part process, with vaccination of the cows followed by even more critically good colostrum management, to ensure that calves can absorb those antibodies. Continuing to feed transition milk from the 2-8th milkings to calves for as long as possible may provide additional protection, but ensuring they get the right amount of gold colostrum at the right time is critical to ensuring the vaccine is effective. ScourGuard 4(K), a scours vaccine in New Zealand covers two Rotavirus serotypes (Rotavirus G6 and G10), as well as bovine coronavirus and E. coli K99.

- May be given IM or SQ and is very tissue friendly – no lumps
- In previously unvaccinated cows or heifers they will require two doses 3-9 weeks apart. The second dose to be given 2-12 weeks before calving.
- NZ trials show a very high antibody response to ScourGuard 4(k) vaccine.
- ScourGuard 4(k) can be given as an annual booster to cows vaccinated with Rotavec the previous year. The cost is 2/3rd that of Rotavec making it a cost-effective solution to scours.
- Ideally give booster dose 2-4 weeks before calving to cover all calves born in the first 8-10 weeks of calving.
- Ensure that all calves received the equivalent of 10% of their body weight in colostrum in the first 12 hours.



Handcock RC, Lopez-Villalobos N, McNaughton LR, Back PJ, Edwards GR, Hickson RE. Increased yearling weight as a proportion of 21-month weight was associated with increased milk production in dairy heifers. *NZ Vet J* 68, 272-82, 2020



Lucy Cameron BVSc BSc  
Waimate Veterinary Centre

## Dry Period Nutrition

Lucy Cameron BVSc BSc

With cows transitioning onto winter feed now, some key points to consider over the dry period:

- **Yield crops & feed test** so you know what you're feeding, and can target appropriate levels
  - ♦ An accurate yield will minimise the risk of digestive disorders & allow accurate allocation
  - ♦ Use feed test information to prioritise higher quality feed to younger/skinnier mobs
  - ♦ DM can vary greatly – it can be higher than expected in a dry year such as this, which will impact allocation
- **Energy & dry matter intake for ½ BCS:**
  - ♦ Energy fed will depend on target weight gain, but in most cases the aim will be to gain ½ a body condition score over winter
  - ♦ Target ~ 120 MJ ME/cow/day (12.5 kg DM down the throat)
  - ♦ Increase proportion of crop fed for increased BCS gain
- **Protein:**
  - ♦ Target 12 – 15% of diet as crude protein
  - ♦ For R2's & R3's aim at the high end i.e. winter on kale, or a feed out a higher protein silage (grass/lucerne) if using fodder beet or swedes
  - ♦ Mixed age cows need at least 12% CP in their diet over winter
  - ♦ Consider checking protein levels in the diet, levels of crop/supplement can be adjusted accordingly
- **Fibre** – keep the rumen full by offering a palatable source of fibre e.g. silage and/or free choice straw.
- **Minerals:**
  - ♦ Phosphorus supplementation is strongly recommended on fodder beet diets
  - ♦ Trace element levels should be checked before dry off, and boosted before calving if necessary, or through the water over the winter if possible – winter crops are often low in copper, selenium & iodine
- **Water** – make sure cows have access to clean good quality water at all times, even with low dry matter crops. Lack of access to water can lead to a drop feed intake too.

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Andrew Muir BVSc BSc (Hons)  
Oamaru Veterinary Centre

## Johne's News



It can be hard to get a true picture of the number of Johne's deaths happening on farm due to how they are recorded. Based on the data that INFOVET is able to access it looks as though

- 111 dairy herds (or half the farms in the practice) have recorded deaths due to Johne's disease.
- The average number of deaths is 4 cows from every herd (This doesn't include cows that were culled after being found at herd testing).
- There is a range in these numbers with some farms recording 16 cows deaths from Johne's.

These numbers show that some farms are losing significant numbers of cows due to Johne's. If you are having to euthanase cows on farm due to the disease it would be worth looking at testing at herd testing to reduce the impact of it.

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# Crop allocation is crucial to preventing acidosis disasters

**Luke Smyth BVSc.**  
Oamaru Veterinary Centre

A well grown fodder beet crop can deliver high yields and be a cost effective way to winter cows, but it takes attention to detail to get the best results.

Just because you offer, on average 10kg DM fodder beet and 4kg DM baleage to the herd does not mean that individual cows will consume this diet. Cattle will treat your winter crop and supplements as a smorgasboard. Some will eat more supplement and others will eat more crop.

### To even intakes out:

- Always have straw/hay available in a ring feeder in the beet paddock.

- Consider adding additional bale feeders during the transition period to improve access by all cattle.
- Always feed silage before shifting the break.
- Quality supplementary feeds is better during transitioning as it will increase the chance of all animals wanting to eat supplement and reduce the variation in supplement intake.
- Paddock setup and crop allocation.
  - Aim for as long a face/break of crop as is practical.
  - Cattle should be able to stand shoulder

to shoulder and all access a new break of crop at the same time.

### Prevent breakouts:

- This is by far the most common risk factor for cattle on crop. Plenty of voltage, 'hot' standards and double fencing reduces the risk to individual animals.

### Know the number of cows in each mob

- Keep track of mob numbers and adjust the daily crop areas as cows are added or removed, especially during the transition process.



# Timely Reminder – Salmonella Cases on the Rise

**Jess McKenzie, BVSc**  
Waimate Veterinary Centre

- Salmonella cases/outbreaks are on the rise – cases are nearly 4 x more prevalent now than they were in 2013.
- Subclinical carrier cows are the main risk of exposure in NZ – shedding intermittently or at low levels.

- Stress plays a major role in disease – eg. drying off, late pregnancy, calving or immune suppression can lead to increased shedding and exposure to the bacteria.
- We have recently seen an increase in the number of sick calves due to Salmonella also – morbidity and mortality rates in this age group can be high.
- Vaccination with Salvexin-B is an effective tool to reduce the chances and severity of an outbreak occurring. At approx. \$1/cow

most farms need only prevent one cow from dying to justify the cost of whole herd vaccination.

- Practical and effective timing for vaccination of dairy cows is around dry off – this will help protect cows through some major 'stress' events and ensure colostral antibodies are passed onto the calf.
- Sensitiser and booster (4 weeks apart) required in the first year. Annual booster thereafter.



# Abortions

**Finja Schmidt BVSc**  
Waimate Veterinary Centre

Between scanning and calving we do, unfortunately, expect some foetal loss. The "normal" figure is hard to determine – but around a 1-2% loss is expected. ie 10-20 cows in every 1000. If the norm is exceeded, intervening is important to prevent excess losses at this stage. Larger numbers of abortion or abortion storms (more than 2 or 3 in 24 hours) should be investigated promptly. Abortion can be caused by various bacteria, viruses, parasites and fungi as well as non-infectious causes. To determine the cause of an issue, it is important we build up a clear history and get good samples from both the aborted foetus and the placenta. Getting these samples and reaching a diagnosis can be tricky, but if done properly can be very helpful in prevention of issues in the future. If you discover an aborted foetus in the paddock, store it in a plastic bag in the freezer (ideally with the placenta if it is there). This means that if there are more cows aborting, you have samples ready to go and hopefully a diagnosis can be reached quickly. If you are having issues with abortion, please get in touch and discuss it with your prime vet as reaching a diagnosis is imperative in preventing further loss.



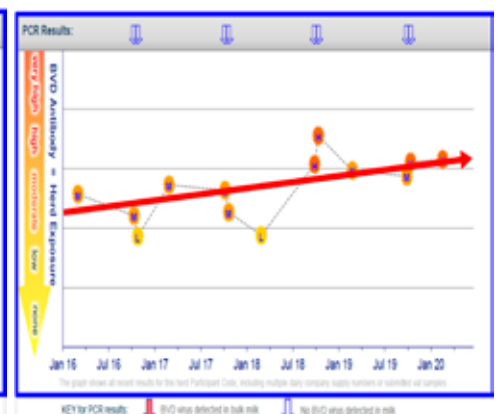
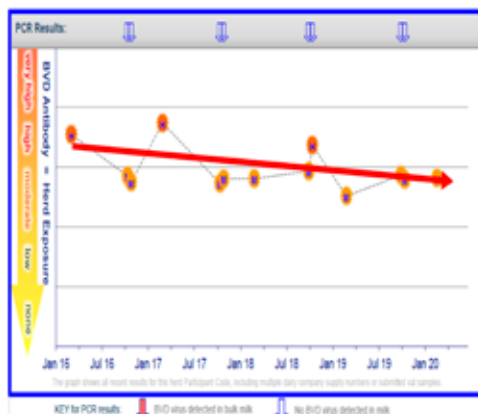
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Oamaru Veterinary Centre

# BVD Bulletin



As we have discussed in previous articles the number of milking herds with PI animals in them is getting to very low levels which is a great result. However, when we look at the antibody levels for individual farms there are many that have patterns similar to the top graph. This farm hasn't had a PI animal in the milkers for at least the last 4 seasons, but their antibody has risen over time as shown by the arrow. This means that there must be exposure of stock (most probably heifers or calves) to BVD virus. We should be seeing a pattern like the bottom graph where the arrow is sloping downwards.

If you have a graph that looks like the top one it would be advisable to start checking young stock. This time of year is perfect to do that as calves are 10 months of age which makes it possible to do quick sampling of a herd. If this all seems a bit confusing I would talk to your prime vet about what it means.





**Hamish Newton BVSc, PhD**  
Oamaru Veterinary Centre



There are still cows to be dried off so please take the time to read our tips for drying cows off in last month's Mooznews or at least have a think about what could be done better and reinforce what you want done with your cows, by your team. Don't "drop the ball" on hygiene for the last batches of cows to be dried off.

Cows will be off to grazing or have already arrived. Please do your NAIT transfers. The following is copied from the M.bovis update

from mid-May. "Failure to record animal movements in NAIT means that a larger number of farms need to be placed under movement controls than would otherwise be necessary, because the Programme cannot be certain where and when animals moved," says Sam McIvor. "This means that one farmer not doing their NAIT properly can lead directly to other farmers' businesses being impacted. No farmer I know would want to be responsible for this."

While on the topic of trucking stock, ensure cows that have just been dried off are treated as though they are still lactating. Best practice is to get 100g of lime flour into them on the day of trucking and 12 to 20g of elemental magnesium (which is roughly 100g of Causmag). Please don't truck cattle to grazing that you would not send to the works. The truckies will be flat out and won't want to be "policing" what can go on their truck.

- No signs of ill health
- No visible wounds, bleeding, disease, deformity or infection
- No ingrown or recently removed horns
- Cancer eye lesions must be confined to the eye, smaller than 2cm and not bleeding or discharging.
- Able to bear weight evenly on all four limbs
- The right Body Condition Score – BCS 3 or greater. Cows with BCS below 3 can only be transported to better grazing, and vet advice is recommended.

## Co-operative difference

For all our Fonterra suppliers we will at the annual Restricted Veterinary Medicines consult be creating an Animal Welfare Plan with you. The plan needs to cover off the following 8 topics

1. Body condition scoring and how you will manage any cows below BCS 4
2. What your clinical mastitis incidence is (and how you might reduce it)
3. What your lameness incidence is (and how you might reduce it)
4. What your mortality rate is
5. What your antibiotic usage is – we now and benchmark this for you
6. A herd improvement strategy – what bulls are you using on your heifers

7. Is there a plan for adverse weather – floods or snow events
8. Is there a plan for hot and humid days – for those days when heat stress could be an issue

At this stage this is only a plan but it will likely get more stringent over time. I think for many clients better recording of the reason for deaths/sales and culls, and the recording all cases of lameness (despite not getting a treatment with a drug) will set you up for a much easier time if these plans get audited in the future. We will create these with you but if you can start thinking about what will be discussing they will have some value.



## Fodder Beet Over the Dry Period

**Mat O'Sullivan BVSc**  
Oamaru Veterinary Centre

Fodder beet is now a mainstay crop for wintering cows in our area. Many cows have been pre-transitioned onto this crop pre-winter. Follow these steps to avoid hassles if transitioning in June.

- Measure your yield accurately – once you know the yield/ha (i.e. 25 tonne/ha crop), you can calculate your yield per square (two rows per metre square) and yield per linear row metre this would be 2.5kgDM/m<sup>2</sup> and 1.25kgDM/linear row metre respectively.
- Allow at least 1 linear metre/cow at the crop face and at least 5m<sup>2</sup> of turning room in the first break.
- Either drop wires on the permanent fence in the first break to allow a bigger area or scrape bulbs with a front end loader (and feed in paddock or stock pile) to create a headland.
- Best to calculate allocation in linear metres to be fed - i.e. if offering 3kg a cow from a 30 tonne crop this would be 2 linear metres or 1 square metre/cow. To be accurate you will have to offer part rows –

i.e. your live strand will have a dog leg in it at some point.

- Cows will comfortably graze 18 inches under a single strand wire. Make sure that the wire sits back 12 inches from the row you are looking to graze. It must be very high voltage!
- Always feed your supplement or grass first and give a gap of 2hrs before shifting onto beet. Cows must get a minimum of 2kgDM of "something chewy" in their diet. This may be either straw, balage, silage or grass and must be maintained through the whole period while on fodder beet.
- For the first couple of days, drive over bulbs with tractor tyres or roller to break up bulbs to get cows eating it.
- Start at 1kgDM/day and increase intakes by 1kgDM every second day until fully transitioned (7kgDM). This takes a minimum of 14 day. Once cows have reached intakes of 7kgDM FB they are unlikely to suffer acidosis but further intakes up to 10-11kgDM total (ad-lib) must still occur at 1kg every second day.

- If you are going to get acidosis this will tend to occur at days 7-10!! It is critical to remain restrained with allocation over this time. Do not let beet bulbs accumulate while still shifting breaks forward.
- Once cows have got above 10kgDM day and looking to ad-lib feed there should be 20-25% of beet left from the previous day when shifting wire and about 5% from the previous day before that. Cows will always eventually clean this up. This is the true definition of ad-lib on beet.
- With a high ME and utilisation at around 95%, condition gain on fodder beet can be rapid. Monitor cow condition (BCS) to avoid them becoming over-fat as this can predispose them to metabolic diseases in the spring. Ensure you are not feeding more than required!
- Crude Protein maybe limiting particularly in crops of low leaf yield. Ensure the total diet is balanced.