



MOOZNEWS

General Principles of Fodder Beet Transition

- a) 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/m² and 1.25kgDM/linear row metre respectively.
 - b) Allow at least 1 linear metre/cow at the crop face and at least 5m² of turning room in the first break.
 - c) 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.
 - d) Best to calculate offering in linear metres to be fed, i.e. if offering 3kg a cow from a 30 tonne crop this would be 2 liner metres or 1 square metre. 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.
 - e) 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!
 - f) Always feed your supplement or grass first and give a gap of 2hrs before shifting onto break.
 - g) For the first couple of days drive over bulbs with tractor tyres to break up bulbs to get cows eating it.
 - h) Start at 1-2kgDM/day and increase intakes by 1kgDM every second day until transitioned (7kgDM). This takes a minimum of 14 days. 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.
 - i) Lactating cows (500kg) in most situations should max out at 5kgDM day of fodder beet (start at 1-2kg). Larger breeds may get up to 6kgDM.
 - j) If you are going to get acidosis this 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 15-20% 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.



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Timely Reminder

Copper supplementation. Ensure heifers in late gestation have adequate copper supplementation to prevent humeral fractures in the spring. Talk to your Prime Vet about supplementation options.

WINTER DAIRY SEMINAR

Well known Waikato based dairy consultant, Dr Sue Macky, from Dairy Production Systems, will be our guest speaker.

Presentation will be on:

Using Transition Management:

- To drive DMI post calving
- To minimise impacts of metabolic disease
- To maximise AH and production

Where and when:

2.30 pm Thursday 27th at Papakaio Community Centre, Papakaio

7 pm Thursday 27th at the Waimate Veterinary Centre





BVD Bulletin

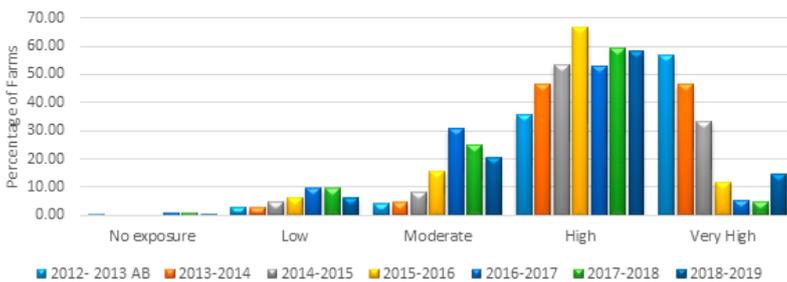
Andrew Muir BVSc BSc (Hons)



This month we continue to look at the bulk milk BVD results for the season in the practice. The following graph summarises the BVD antibody ELISA for all the farms that have done testing. The BVD antibody ELISA measures the level of exposure in a herd to the virus, the larger the number the greater the exposure. Herds that are positive for virus have high or very high levels. However not all herds that are high or very high will have a milking cow infected with BVD virus (PI). In fact in our area these days, most don't.

The graph shows how this season there has been an increase in the percentage of herds with high or very high antibody levels, 72.9% versus 64.3% for last year. This is the highest level of antibody exposure since the 2015-2016 season. At the same time there has been a decrease in the number of herds with low levels of exposure. We saw in the April BVD bulletin there has been a decrease in the amount of BVD virus on dairy platforms. This means that most of the exposure is coming from elsewhere, most likely young stock away at grazing or possibly bulls. This graph would suggest that young stock off farm are being exposed to more BVD. This isn't ideal as BVD slows calf growth and impacts fertility. It is worth trying to protect these critical groups of animals from BVD by biosecurity, testing or vaccination.

Antibody levels of dairy herds over the last 7 seasons



OAD Milking & 16 Hour Milking in Late Lactation/Wet Tracks

This late lactation strategy is commonly adopted to increase cows condition (or minimise condition loss!) before dry off. Cows which are producing less than:

- 1.2kgMS/day will have minimal reduction in milk yield (<10%) when placed on OAD.
- 1.6kgMS/day will have little reduction in yield on a 16hour milking routine.

Because milk production at this stage of lactation is not necessarily compromised, condition gain will only occur if cows continue to be fed like a twice a day milker. At most a cow on OAD will require about 1.5kgDM/day less than a TAD cow to remain in the same energy state.

Possibly the biggest advantage from extending milking periods is lameness reduction. Cows are very prone to going lame in late lactation due to extended periods of walking on wet tracks. Cows which are lame, spend more time sitting and therefore do not eat as much..... so they lose weight.

Expect a spike in BMSCC for the first 48 hours after going on OAD, but be cautious about using this strategy if you BMSCC is already over 200,000.



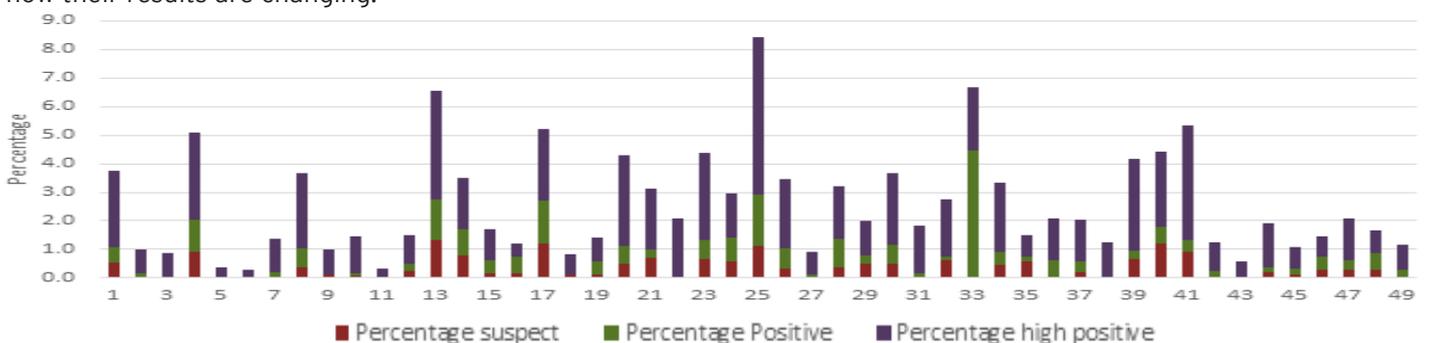
Andrew Muir BVSc BSc (Hons)

Johne's News



So far this season we have had Johne's results back from 49 farms. The graph below outlines the results for different farms as a percentage. You can see there is a large amount of variation in the results. Part of this variation is due to some properties having tested for more than 1 season so have reduced their level of infection. The other big variable is the level of Johne's infection on farm.

For this season the average test results are, suspects 0.3%, positives 0.5% and high positive 1.7%. This gives a no detected antibody level of 97.4%. This means that a farm with an average test result will only have a small percentage of animals that test positive. In Mooz news next month we will look at farms that have tested over multiple seasons and how their results are changing.





George Smith BVSc

Grow Smart

HEIFER MONITORING PROGRAMME



With grass growth rates beginning to slow as we move into the last month of autumn, it is imperative that heifer growth rates and feed allowances are being monitored. The weighing of heifers on a regular basis allows for an accurate assessment of live weight gains and proactive management.

The following example is a previously used Mooznews article from 2018 where heifers were underfed through the autumn through inadequate feed allowances. This consequently resulted in this mob of animals being notably underweight at mating. The heifers were first weighed on the 27th of June.

27th June 2018: (Last year's heifers)

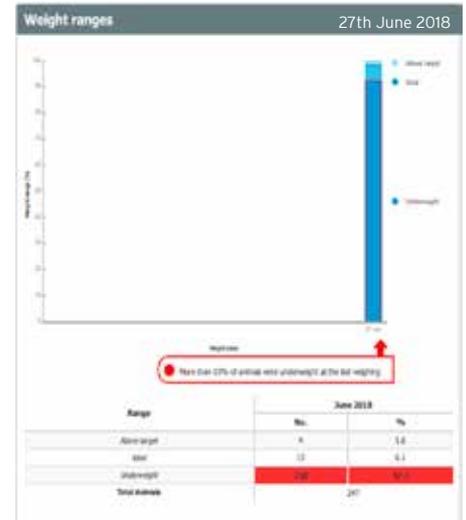
- Mob average 192 kg
- 92% of the mob considered underweight

17th April 2019: (This year's heifers)

- Mob average 201 kg
- 50% of the mob over 200 kg.
- Current target for this mob is 190 kilograms based on the herd mature weights.

This mob will now be regularly weighed every 8 weeks to ensure they continue to grow at the required growth rates. This will ensure they have the best opportunity to reach puberty (weight being the major determinant) by 12 months of age. In addition to this these heifer will be correctly allocated the

required amount of feed to continue to grow at the required growth rate to reach target.



Dry Cow Therapies - Matching Goals with Capabilities

- Mat O'Sullivan

In short, a successful dry off strategy should cover 3 aims;

- Cure existing infections
- Prevent new infections immediately post-dry off
- Stop the establishment of new infections close to calving (springer period).

Teatsealants have no ability to cure existing infections, but when administered correctly to low SCC cows (<100,000-200,000 SCC/ml) they are very effective at reducing post-dry off and pre-calving mastitis .

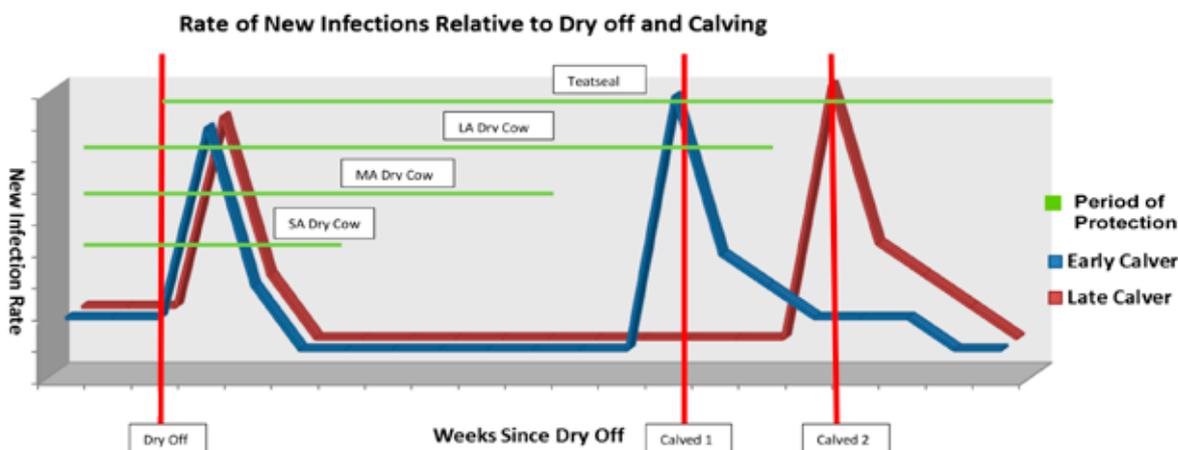
The registered claims for Dry Cow Antibiotic Therapy (DCAT) preparations stretch from 4 weeks to 10 weeks.

Bovaclox for example will cure existing infections and provide protection for 4 weeks post-dry-off. There is however little further gain from products claiming residues beyond 4 weeks unless the product is very long-acting and is still present in the udder at point of calving.

Cepravin for example is registered for up to 10 weeks protection, this is based on clinical trials measuring udder residues out to 10 weeks (dry periods do not exceed 10 weeks in the Northern Hemisphere where it was trialed). Our practice in conjunction with MSD looked at Cepravin residues in springer cows with 14 week dry periods and found the majority still had protective levels in the pre-colostrum secretions. This is why it is the only DCAT in NZ that can show proof in reducing early season BMSCC. The downside of course is that it is also by far the most commonly detected inhibitory substance in the early season, thus Cepravin treated cows must adhere to withholding the first 8 milkings from supply.

As the average dry period in Otago/Canterbury is between 85 and 90 days, few products registered in NZ (e.g. Cepravin) will provide significant protection close to calving. There is little advantage in investing in products that provide protection for more than 4 weeks but less than 10 weeks if the dry period is

going to be greater than 10 weeks. This is because very few new infections are picked up in the mid-part of the dry period (see image below). If protection close to calving is desired in cows with longer dry periods we recommend Teatseal.





Teatseal Insertion

Many of you are in the position to be able use selective dry cow therapy (using Teatseal in some mixed age cows that are deemed not infected). I want to take this final opportunity to emphasise the importance of doing this correctly as the last thing anyone wants is to put bugs into the udder when inserting teat seal. If you do put bugs into the udder you are putting them into warm milk and this is a great place to be a bug and obviously bad for the cow. I think the mindset that everyone has to be in when inserting teatseal is that **you are sealing one quarter at a time with clean and dry hands, not a cow each time.** In practice this means

- **Don't** wet the udder - if you have to, dry it before inserting teatseal
- **Wear gloves**
- **Wash** your gloved hands between every cow - or more often if necessary
- **Dry** your hands after washing - wet hands result in the dirt on the udder running down the teat. Dry your hands with disposable towels or be prepared to use lots of cloth towels.
- **Clean** the teat end until the wipes are clean
- Insert the teatseal
- Then clean and seal the next quarter
- **Teatspray** the teats once all four of the teats are done

Do not be tempted to think that you can have someone cleaning the four teats



Teat Seal Team

then someone else putting the Teatseal in. You will all know someone who has done this and "it was fine" but we also know of many cases where this has been done and it resulted in a disaster.

Reducing antibiotic usage in the dairy industry

There is a global push to try and reduce the amount of antibiotics used in food producing animals. Fortunately we now have the tools and the knowledge to make a decision about an individual cow as to whether she is infected or not. We also now know (and now have a few year's experience doing it) that teatseling uninfected cows works. This results in dramatic reduction in the quantity of antibiotic used on a dairy farm and will make a difference to New Zealand's dairy industry's usage of antibiotics - exactly what society wants.

Nitrate Toxicity Alert

Brassicac (Kale, Chou, Rape, Turnips and Swedes), fodderbeet, Italian ryegrass and oats can all produce nitrate toxicity. Of this group, rape is the most notorious - winter rape crops continue to gain popularity in this area for heifer grazing. Plant nitrates increase when it rains, after a sustained dry period, as during the

dry period, soils nitrates increase, and then they are transported into the plant.

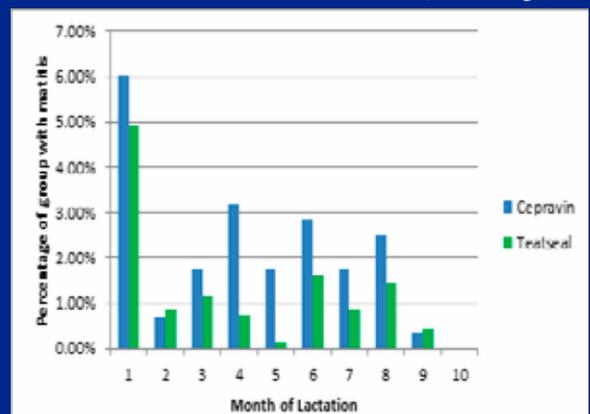
Before introducing animals to crop this June, we urge that it be tested first. Nitrate test kits can be purchased from any of our clinics, representing a cheap investment. Alternatively bring in samples to be tested by our staff.

WHOLE HERD PREGNANCY RETEST \$1.62 plus GST

Case Study: Using Teatseal alone at Last Dry Off

The following data comes from a 1400 cow herd that last season, based on cell count, treated cows with a SCC > 150 with Cepravin and the cows with a SCC < 150 with Teatseal.

When assessing the effectiveness of a DCT strategy it is the first 1-2 months of lactation that provide the best answers. The cows that received Teatseal had less than a 5% incidence of mastitis in the first month of lactation. This is less than our clinic target of 6% and it was also lower than the Cepravin treated cows. You will also note that the higher SCC cows (Cepravin treated) had a higher incidence for the remainder of the lactation. High SCC cows from one season tend to be at greater risk of reinfection throughout the next season. Culling chronically infected cows will mitigate some of this problem.



Fodderbeet Protectants and Supplements



Fodder Beet – Protecting the cow and balancing the diet

The feeding of fodder beet to cattle is now a fully established practice. It has the potential for high yields making it a cheap, high energy feed. It does however possess some challenges in its management and balance of the ration.

- a) Acidosis - Acidosis is the greatest concern for all farmers. It occurs after a sudden increase in intake of individual animals. Without time to adapt, cows struggle to buffer and remove the increased production of VFAs from the rumen and a disastrous drop in pH occurs.
- b) Mineral Balance – Fodder beet is low in phosphate and is often below the daily animal requirements. It is also marginal in calcium. When feeding these crops for an extended period, there could be significant risk of depletion of bone mineral stores. This may result in increased risk of metabolic disease at calving and early lactation.
- c) Protein Deficiency – Fodder beet is protein marginal at best. A greater proportion of the total protein is in the leaf (17-20% CP) versus the bulb (10-11% CP). Cows need a minimum of 12-13% during the dry period but this increases to 16% closer to calving. Some crops lose significant leaf mass in late winter potentially limiting protein availability which coincides with a 20% increase in protein requirements in late gestation. Protein deficiency at this time will impair appetite, health and production at calving. It is important that a diet containing FB be balanced for protein.



Product Solutions

a) Gutsy Beet Dairy from Ruminat

This product has been formulated to help buffer the rumen during the crucial first three weeks while building up to ad-lib intakes. It also contains calcium and phosphate, trace minerals and high doses of vitamin A, D and E in a loose lick form. Dose is 150g/cow/day at \$0.36/cow/day.

b) Kynophos

This product contains MonoDiCalcium Phosphate, with a 60gram daily dose supplying most of the daily requirements of phosphate for a dry cow and enough calcium to maintain a dry cow at least a month from calving. Kynophos is a free access granule which is palatable but self-limiting. We recommend it be mixed with salt during the introduction to encourage intakes. Cost of Kynophos for 60g is \$0.07/cow/day.

c) Gutsy Beef from Ruminat

This product is likely to fill a niche in late gestation as protein requirements are starting to increase. Protein deficient cows are more immune compromised at calving. It would be positioned well in the month of July, in a situation where leaf yield and/or supplements may be protein limited. It is a blend of Gutsy Beet Dairy and canola and soy proteins. Field trials have shown marked weight gains when this was fed at 750g/day to beef animals, suggesting protein was a limiting factor. The dose of 750g is \$0.63/cow/day.

All the above products can be fed as free access in troughs/PKE trailers in paddocks.