



Veterinary Centre MoozNews

Calculating Cow Feed Requirements over the Dry Period



Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

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 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%.

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

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Balancing the Winter Diet

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru



Fodder Beet

A cow in the dry period typically requires 10-11% dietary crude protein as a minimum to remain healthy and gain muscle mass as well as body fat. This requirement (for udder development, colostrum production, rapid phase calf growth) starts to rapidly increase in the final 3 weeks of gestation reaching an optimal 16% in the final 10 days before calving. Fodder beet (FB) is usually low to marginal in protein. The leaf yield of the crop is a prime determinant in the total available crude protein. Crops that have low leaf yield or have had minimal nitrogen application/depleted soils will generally be low. Careful consideration needs to be made around the form of supplements to complement a FB diet. Where the CP levels are low, addition of a good quality grass or lucerne silage/baleage will aid in restoring to optimal levels, whereas a poor-quality hay or straw will worsen the situation. Getting crops tested for crude protein is a good place to start when calculating supplement balance.

Fodder beet may be low in Phosphate (but not always) and is commonly low in Calcium.

Phosphate levels in beet in the Waitaki area are not as low as those reportedly found in other areas in Canterbury. With Calcium the leaf typically contains 5-7 times the concentration than the bulb. Thus, having a healthy leaf yield is a good way to ensure cows are not deprived. Testing for these two macro-minerals is a good start point to decide on the requirement for supplementation. Lucerne is a good matching supplement for FB as it is generally high in protein and very high in calcium.

Where it is possible to provide calcium on FB I suggest you do it. 50g/day of DCP plus an additional 50g/day of lime-flour will meet most requirements. Some crops are quite low in salt. Mixing salt with lime-flour/DCP can encourage intakes. Most Fodder beet 'loose lick' type products benefit from an additional calcium boost.

Selenium levels are always very low, so ensure cows are well supplemented while on crop or going on and coming off. High rates of soil ingestion can deplete liver copper stores so keep this in mind particularly with R1s and R2's.

Kale/Giant Rape

Generally, kale will have adequate crude protein to support pregnancy - ~15% crude protein, but this is not always the case if it has been nitrogen deprived (it can measure sub 10%). Most of our brassicas are high in Calcium so require no additional supplementation - they can be quite good at replenishing bone stores.

Kale however contains goitrogens which can bind up dietary iodine. Consider supplementing with iodine, particularly with R2's as deficient heifers are more prone to still births.

Kale diets usually result in the body consuming more Selenium and Vitamin E (vitamin E deficiency is also associated with still births and RFMs). For Vitamin E restoration try to get back onto 5kgDM plus of grass 10 plus days before calving and ensure selenium supplementation pre and post going on the crop.

It is recommended that a maximum of 75% of the diet be kale, the rest silage/hay.

Fodder Beet Over the Dry Period



Mat O'Sullivan BVSc
VETERINARY CENTRE Oamaru

Fodder beet (FB) is 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 when 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/m² and ~1.25kgDM/linear row metre respectively.
- Allow at least 1 linear metre/cow at the crop face and at least 5m² 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 stockpile) 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. Ideally though a mob size will be as long as the grazing face.
- 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!
- Cows must get a minimum of 2kgDM of “something chewy” in their diet. This may be either straw, baleage, silage or grass and must be maintained through the whole period while on fodder beet.
- Feed little to no supplement before cows go on the crop in the morning. If some cows become too full on the supplement before going onto the crop their appetite and thus their intakes will be low or variable within the herd. This is an important point – individual cows that are slow to adopt eating fodder beet are at high risk of acidosis and at a herd level it will take them a longer transition period to reach ad-lib intake.
- 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 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. This is the true definition of ad-lib on beet.
- With a high ME and utilisation at around 90-95%, 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. Feeding a cereal straw/baleage with bulbs with low leaf yield are probably going to protein deficient.

Veterinary Centre Spring Calving SEMINARS

Our popular 'Spring Calving Seminars' for farm staff will be held in July. These interactive sessions will include four modules covering spring mastitis, metabolic disease, calf rearing and calving a cow.

- **Tuesday 11 July, 7-9pm at Veterinary Centre Oamaru**, 311 Thames St, Oamaru.
- **Wednesday 12 July, 7-9pm at Veterinary Centre Waimate**, 128 High St, Waimate.

Please contact your nearest clinic to register.

It'd be great to catch up!

Book Today

RSVP to events@vet111.co.nz

\$35 PP

SELEKT™
Pump Complete
\$895.90
Incl GST

The SELEKT formulae are intended for delivery into the rumen, using a SELEKT cattle pump and drenching set

	Antacid	Fresh Cow	Off Feed	Restore
Use for rumen buffering	✓			
Following Caesarian section		✓		✓
For hydration				✓
Inappetance in early lactation			✓	
Reduction in the risk of ketosis		✓		
Ketosis recuperation				✓ if fluids needed
Following correction of left displacement of the abomasum			✓	✓
Reduction in the risk of milk fever/hypocalcaemia and ketosis		✓		



Loose Lick Fodder Beet

LOOSE LICK FODDER BEET MINERAL BLEND 25KG

- Essential Macro elements – phosphorous and calcium
- Balanced blend of macro and trace minerals required during the winter.
- Place in troughs close to where cows are grazing ... recommended to be fed in 1 x 100 litre container (200 litre drum cut in half) per 100 cows
- Daily Dose 70g per cow per day ... daily dose is variable give or take up to 40% depending on environment e.g. warm/cool weather conditions

Daily Cost per Cow Dose

17.4c

\$62.10 +GST

25kg Bag (Tonne Rate)

357

Daily Cow Doses per 25kg bag

Treating Lame Cows over the Dry Period

Luke Smyth BVSc – VETERINARY CENTRE Oamaru



We are now starting the dry period and the cows are heading away for the winter. It's time to refresh and hopefully take a well-deserved break.

But even on the best farms there will be a group of lame cows at the end of the season and we must take advantage of the dry period to allow these cows to recover.

I would strongly recommend that any lame cows are treated before drying off and spend the winter on the dairy farm.

Lameness is a clear visible sign that a cow is experiencing pain making this an important animal welfare concern. Lame cows spend less time standing and fail to compete with sound cows at the crop face, resulting in a lower dry matter intake and failure to gain condition over the dry period. Treatment often becomes difficult and unsafe if the grazing block yards and head bail/race are not set up for dealing with lame cows.

Lame cow action list:

- Trim any grossly overgrown claws. One of the most important ways to prevent lameness from occurring during the dry period is a functional hoof trim.
- Review the lame cow mob, chronically lame cows may not respond to treatment and require culling from the herd. A veterinary certificate is an absolute must if lame cows are to be

transported to the works. If these cows cannot be certified fit for transport, then a decision needs to be made to destroy on farm.

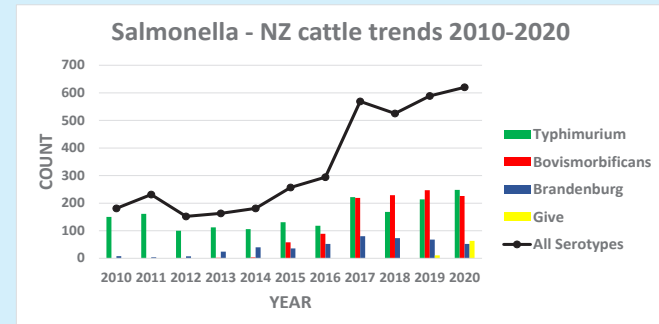
- Look for any new or mild lameness when cows are being yarded for loading onto the truck.
- Giving an anti-inflammatory when treating lame cows will significantly improve recovery rates. Metacam, Rimadyl or Ketomax are all sound options.

If in doubt about a lame cow seek veterinary advice.



Salmonella Cases on the Rise

Salmonella is a significant disease of cattle. It is increasing in prevalence and is found throughout New Zealand. Salmonella is **3.8 times more prevalent now than in 2013** as the graph below shows (Surveillance data, MPI).



Salmonella is a bacteria that is usually spread by healthy carrier animals which don't show signs of disease but shed bacteria (usually intermittently or at low levels). There are many serotypes, but the most important are shown on the graph above. *Salmonella Give* is a recent addition, currently only found in the Waikato and Bay of Plenty.

Salvexin+B ACVM A007886

Outbreaks happen when ingestion of an infective dose of *Salmonella* occurs at the same time as a stress (a change in feed, young calves, late pregnancy or immune suppression). It is at this time that animals become sick or abort from *Salmonella*; sick animals shed more *Salmonella* into the environment, which can infect other naïve flock/herd mates, making the outbreak worse.

The impact of an outbreak of *Salmonella* on a dairy farm can be devastating. On average 10% of cows become sick, and approximately 1-2% die.

Ways to reduce the risk of *Salmonella* on your farm are:

- Clean and disinfect yards between groups of animals
- Minimise time off feed when yarding/transporting
- Separate stress events (e.g. transport and vaccinating)
- Vaccinate at-risk animals prior to stress events or diet changes
- Double check magnesium supplementation forms/rates

In many cases, vaccination will be recommended. Salvexin+B is the *Salmonella* vaccine for sheep and cattle in New Zealand. Most farms only need to prevent one cow dying from *Salmonella* to justify the cost of preventatively vaccinating the whole herd.

A practical time to vaccinate for dairy farmers is around drying off, and this will allow colostral antibodies to pass into the calf.



UdderNews



Hamish Newton BVSc PhD
VETERINARY CENTRE Oamaru

The optimal dry off procedure will see a cow's:

- lactation sufficiently wound down before her last milking.
- the introduction of dry cow therapy (DCAT or Teatseal) done with sterility.
- and the cow's continuance on a maintenance only diet for a further 3 days to cease milk production.
- cows should be walked or transported while there is no or little milk accumulation in the udder i.e. 12-24 hours post dry off or seven days later.
- a clean environment for at least the first week.

When done poorly there is:

- the risk of introduction of mastitis causing bacteria during insertion.
- the risk of large milk volumes in the udder with resultant pressure forcing teat sealants out or milk leakage providing bacteria an opportunity to enter.
- the systemic re-absorption of antibiotic as milk is reabsorbed from the udder. This results in declining residues in the udder which limit the extended protection period.

Avoid bringing the herd back to the shed for 7 days post dry off but look out for slow moving cows that are not eating in the first 24 hours – these could have a toxic mastitis and require immediate action. A combination of Mastiplan intramammary, Engemycin and Metacam would be a suitable treatment.

For cows that are noted with mastitis two plus days after dry-off we recommend these be treated with Penclox intramammary and milked during this treatment period and then treated with Dryclox after the last milking.

BVD Bulletin



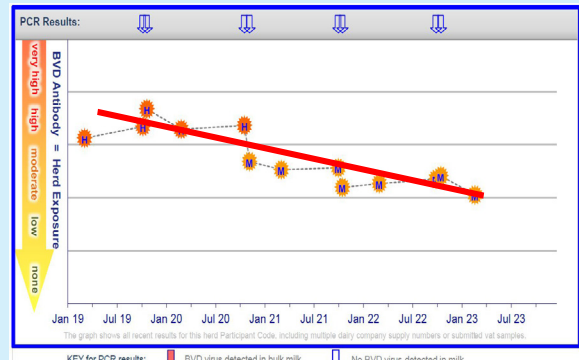
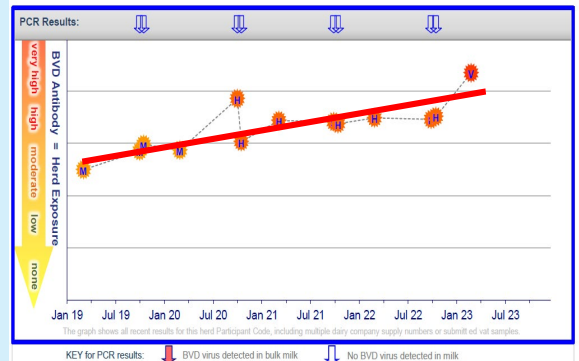
Andrew Muir BVSc BSc (Hons)
VETERINARY CENTRE Oamaru

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 red line. 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 line 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 a quick sample. If this all seems a bit confusing I would talk to your prime vet about what it means.



Changes to Antibiotics

Andrew Muir BVSc – VETERINARY CENTRE Oamaru

Recently a number of products containing penicillin have had their registrations around dose rates and withhold periods changed. This has occurred because the dose rates that people have been using were from when these products were first registered many decades ago. Products that have been affected include Propercillin and Intracillin 300.

You will notice that the new dose rates on the packets now reflect the dose rates that we have been recommending that you use for many years. There will be a slight change in withhold lengths. We will also label these products so that any changes are obvious.



Propercillin ACVM A010101



Intracillin 300 Injection ACVM A005301

Animal Wellbeing Plan

Andrew Muir BVSc – VETERINARY CENTRE Oamaru

Over the winter period we will sit down with you to implement an Animal Wellbeing plan that meets the requirements for Fonterra suppliers as part of the Co-operative difference. The plan covers off the domains of health, nutrition, environment and behaviour.

For the new season there aren't any new areas that need to be covered. Though you are probably aware that Fonterra terms of supply for the new season require that all calves born on farm will need to be recorded. There are also requirements around only euthanising calves on farm when there are humane reasons for doing so. We will be able to discuss this with you.

The completed Animal Wellbeing plan will be in the blue folder with the RVM documents that will be sent on farm.

ANNUAL DAIRY FARM ANIMAL WELLBEING PLAN			
Health Category	Current Farm Performance	Industry Target	Farm Target
NUTRITION			
Body Condition Score	5	5.0 at Culling, < 1 BCS loss Pre-mating	5.0, 5.5 for heifers and FS
Thin Cows Below 3.5 BCS	0%	0%	0%
HEALTH			
Lameness	5%	12%	5%
Mortality	17%	12%	12%
Mortality (Rate - Cows)			
Mortality (Rate - Calves (pre-weaning))	0%	2%	1%
Mortality (Rate - Calves (pre-weaning))			
Mortality (Rate - Calves (pre-weaning))	1%	5%	2%

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Calf Scours Vaccination Protocols



Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

With more beef cross calves being reared, there is greater throughput through many calf sheds. This increases infection pressure. Having good colostrum harvesting and feeding protocols is important. Calf scour vaccines will boost this colostrum quality with targeted protection.

Two vaccine options are available: Rotavec and Scourguard.

Rotavec

- Only a single dose required for cows which have never been vaccinated.
- Can be given 3-12 weeks before calving. Highest colostrum production will be from those vaccinated 3-6 weeks before calving. We recommend doing this in batches – i.e. early calvers then later calvers.

Scourguard

- If cows have never been vaccinated before, requires 2 doses, 3-9 weeks apart.
- In subsequent years Scourguard only requires a single dose. It can also be used to boost Rotavec if that has had been given in the previous years.
- Booster given 2-12 weeks before calving.
- Is ~2/3rds of the price of Rotavec.



Scourguard 4(k) ACVM A010057
 Rotavec Corona ACVM A008132

We recommend in herds doing whole herd vaccination they use Rotavec in heifers and Scourguard in subsequent years. For best results ensure that all calves receive the equivalent of 7% of their body weight in gold colostrum within 12 hours of birth.

Abortions

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.

Veterinary Centre

Farewell to



Charlotte Mercer

Charlotte Mercer finishes this week as Territory Manager for Waimate, a position she began in late 2018. Both the Veterinary Centre team and our clients will miss Charlotte's energy and commitment to looking after customers and their farming needs. Her passion for farming and the role was evident as she frequently went above and beyond especially on the most critical issues such as drench efficacy monitoring. We thank Charlotte for her work wish both her all the best in her future endeavours.

NEW Waimate Territory Manager



Rosalie Calder

Waimate Territory Manager
 Waimate TM **027 434 5616**

Rosalie Calder will be taking up the Territory Manager role in the Waimate district following a managed change over period from her current position in Oamaru. Cellphone contact for the Waimate Territory Manager will remain unchanged.

Teatsealers Hard at Work!



The Waimate teatseal team

From left: Viv, Natalia, Alice, Brodie, Morgan



The Oamaru teatseal team.

From left: Amy, Jordyn, Tegan, Rhonda, Avril