

Flexible Milking Frequency	Page 2-3
A Gut Worm's Garden Of Eden	Page 4
Give Non-Cyclers A Helping Hand	Page 5
Post Calving Disease Focus - LDA's	Page 5



The MULTIMIN Stoney Creek giveaway has come to a close and we're very excited to let you know that 2 of our farmers have been drawn winners in the nationwide draw.

**Congratulations Michael Smith & Scott Evans!**

## Bloat Oil or Rumenox?

When it comes to pasture bloat, bloat oils have historically been the number one 'weapon of choice' and have been perceived to be the most cost-effective option available.

Bloat oils are simply used to treat bloat with no added benefits.

However, one product that is getting wide acceptance is Rumenox, not only for its ability to effectively prevent bloat but at the same time it helps get more cows in calf.

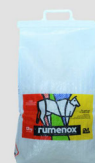
Cows don't always drink regularly. In fact, they drink very little at night and on wet days.

Conventional bloat oils are short-lived in the rumen; therefore cows are still vulnerable to a bloat challenge once they stop drinking. But Rumenox's unique mode of action means herds are protected for a longer period, giving farmers added peace of mind even on those wet days.

Unlike bloat oils, Rumenox has a single dose rate regardless of the bloat challenge. This eliminates the need for estimating the level of bloat challenge and adjusting rates accordingly.

The good news is that the price gap between bloats oils and Rumenox has closed considerably, making Rumenox the most cost-effective option.

The other good news is there's a wealth of research both internationally and in New Zealand pasture systems supporting the additional benefits of Rumenox.



**Rumenox**      **Bloat oil**

	Rumenox	Bloat oil
<b>Benefits</b>		
Bloat control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reduced ketosis	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Improved cow condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>
More cows in calf	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Active Protection</b>	24-48 hrs	6-12 hrs
<b>Dose Rate</b>	1 gram	5ml-15ml
Available in water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Available in feed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Cost Effective</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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# FLEXIBLE MILKING FREQUENCY

## Is there a better way of milking?

By John Spearpoint

COVID-19 has intensified the ongoing labour crisis within the dairy industry. A hot topic at present is how to find practical solutions to the twice-a-day milking routine that can still maintain production and profit, while at the same time improve the attractiveness of the workplace.

Some of our clients transitioned to flexible milking routine part-way through last season and intend to follow a similar regime again this season. So, we thought we would share some insight into these changed milking practices to help you decide if it's worth giving it a go this season.

### What is flexible milking?

Flexible milking is a term used to describe milking intervals that sit between the more traditional twice-a-day (TAD) and once-a-day (OAD) milking. It allows for more flexibility in the timing and number of milkings per week.

The most common is milking three times in two days (3-in-2) which has more recently been tweaked to 10 milkings over 7 days (10-in-7). Since many farmers adopt flexible milking strategies to improve their work-life balance, the original 3-in-2 milking every 16 hours was not favoured since it included an unsociable night milking every second day. The 10-in-7 alternative was a welcome bonus for staff since it includes OAD milkings on weekends and a sleep-in every 2nd day.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Frequency	TAD	OAD	TAD	OAD	TAD	OAD	OAD
AM	5am	10am	5am	10am	5am	10am	8am
PM	3pm		3pm		3pm		

Note: These times are only indicative and you may decide to milk earlier or later.



### Typical 10-in-7 milking schedule

TAD milkings occur 3 days per week (Mon, Wed, Fri)

OAD milkings occur 4 days per week (Tues, Thurs, Sat, Sun)

Timing of milking can also be variable with farmers using intervals of 12-18-18 hours, 10-19-19 hours, 8-20-20 hours.

Every week is the same.

### What is the current uptake on changes to milking routines?

Statistics from the 2020-2021 season indicate;

- Only 37% of national herds milked TAD for the full season
- 8% of herds milked OAD for the full season
- 1/3 (33%) of herds used a combination of TAD and OAD at some stage during lactation
- 10% of herds used a combination of TAD, 3-in-2, OAD during the season
- 14% of herds nationally used 3-in-2 milkings, including 26% of South Island herds

### Why switch to a flexible milking routine?

The following table by Dairy NZ outlines the benefits of switching to a 10-in-7 milking routine. Essentially, the benefits fall under two main categories;

#### 1. People and workplace

Milking accounts for approximately 50% of the time spent on farm, so a 28% reduction in milking frequency each week allows for more flexibility in work hours, resulting in less fatigue and improved staff wellbeing. Ultimately these changes contribute towards staff retention and creating a workplace to attract new staff.

#### 2. Animals

Milking animals less frequently results in less energy expenditure primarily through reducing walking distance, less time standing on concrete and more time grazing. This translates into improved body condition, fertility and lameness. Farmers indicate cows overall appeared happier. More time spent grazing and more time lying for rumination are positive animal welfare indicators.

#### Key reasons for adopting 3-in-2

People	Animals	Lifestyle
Staff attraction and retention	Better body condition	More flexibility
Better work hours	Less lameness	More family time
More flexibility	Better overall cow health	Improved wellbeing

Source: Dairy NZ website

## Dairy NZ research project investigates 3-in-2 milking

In 2019, a Dairy NZ led research project “Flexible Milking for Healthier People and Cows” launched, specifically looking at the benefits of 3-in-2 milking frequency. The project is being run over 3 years at Lincoln University Research Dairy Farm where 4 farmlets have been established and 4 milking frequency scenarios will be compared under Canterbury conditions.

1. TAD for full season (baseline for comparison)
2. 3-in-2 for the full season
3. 3-in-2 from December 1<sup>st</sup>
4. 3-in-2 from March 1<sup>st</sup>

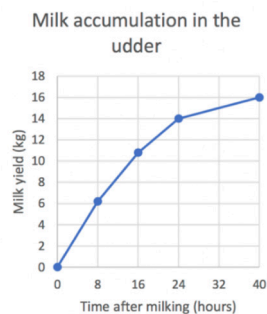
## What are the likely trade-offs when switching to a flexible milking routine?

### Milk yield

After the first year of the trial, cows on the full season 3-in-2 produced 5% less milk solids than the full TAD herd. One less milking under 10-in-7 may lead to a slightly higher production loss, although variations in milk yield will depend on stage of lactation, as it would be expected to be more pronounced in animals during early/peak lactation than for animals towards the end of lactation.

The initial findings suggest that for every day on a 3-in-2 milking, daily milk solids only drop by 0.09kg/cow. While milk volume may slightly decrease, the milk component percentages increase to partially offset this. Extending milking intervals was shown to have no effect on fat production. But as protein production follows milk yield, the cows on the full 3-in-2 season produced 8% less protein. Since farmers are paid for fat + protein, changes in milk composition by decreasing the ratio of protein to fat may increase the value of milk per unit depending on the milk processor.

It is also worth noting that milk accumulation in the udder is linear up to 16-18 hours, so a change to 10-in-7 will have little effect on overall milk volume, assuming other factors such as feeding remain constant.



### Somatic cell count

It is commonly thought that longer milking intervals (like OAD) are associated with increases in SCC from increased pressure in the udder, but no effects on SCC were recorded for 3-in-2 milkings. Increases in SCC are more likely to be seen from the shorter milking intervals due to lower volumes of milk to dilute somatic cells. Therefore, adjusting tanker collection times to every second day can help as the pickup will contain all three milkings.

### Mastitis

The incidence of mastitis did not increase significantly possibly due to teats being less exposed to the milking process. Although, it is possible that if a herd is experiencing problems with mastitis, the transition to a 3-in-2 milking may see an increase in mastitis as undetected early stage infections will have more time to establish. Regardless, early identification and prompt treatment is essential under any milking regime.

All RVC first line treatment options for mastitis have once-a-day label claims, so any clinical mastitis cases can still be treated once daily under flexible milking routines.

### Body condition

The full 3-in-2 herd recorded an improved body condition of 0.25 units compared to the full TAD herd with increases in body condition becoming more evident towards the end of the season. The theory behind this is the energy saved through reduced milking frequency goes towards increases in body condition.

It must be stressed though, 10-in-7 milkings should not be used

as a tool to reduce feed intakes. If the goal is to improve body condition in lighter conditioned animals, these will respond better on OAD milking as a change to 3-in-2 may still result in a range of BCS across the herd.

Ultimately, improved body condition at the end of lactation/dry-off will result in lower feed requirements over winter and improved ability to reach pre-calving BCS targets next season.

### Lameness

Significant reductions in lameness were noted in the 3-in-2 herd possibly as a result of reduced walking distance.

***These results imply it is possible to extend the interval between milkings without significantly impacting on milk production and animal health.***

### When should I consider switching to 10-in-7?

This will be largely farm dependent, based on what outcomes you are wanting to achieve and what your team can handle during the season. Farms that have moved to flexible milking times have based the timing on;

- Most farmers start with a transition from TAD to 10-in-7 during the second half of the season. Some commence at Christmas time to help with staff rostering and to accommodate holidays, others have started in the last 2-3 months of lactation.
- Sudden staffing changes due to illness/injury, loss of workers or the need to cater for flexibility in rostering.
- Feed &/or weather changes which impacts on ability to maintain cow body condition.
- A gradual move from TAD to 10-in-7 and then to OAD can reduce dramatic lifts in SCC which can happen shortly after starting extended milking intervals.
- Some farmers considered using a production trigger, eg. when milk production drops to 1.6-1.8kgMS but reported this was not useful since you never know when you are likely to hit the target, making future planning and rostering more difficult.

According to Dairy NZ, farms that have tried flexible milking times have returned to using it earlier the next season after seeing the benefits on both staff and animals, with little to no impact on production. Broader impacts on profitability will largely depend on reductions in cost structure and how the extra time not spent milking will be utilised.

These are exciting results and could be a game-changer.

## Key Points

- 10-in-7 milking (10 milkings over 7 days) is a practical alternative to 3-in-2 (3 milkings in 2 days). OAD milking occurs on weekends and every week is the same.
- 10-in-7 milking has little impact on milk production and can be adopted at any stage during the season.
- Cows settle into the new routine quickly. Overall animal health improves, reduces lameness and improves body condition.
- Staff wellbeing improves through flexible rostering, reduced work hours and creating a better workplace to retain and attract new staff.
- 3-in-2 is gaining in popularity with 26% of South Island herds using it at some stage during lactation.

# A GUT WORM'S GARDEN OF EDEN

Winter 2021 was the warmest winter on record, surpassing the record that was set just last year. Temperatures were above average (+0.51 °C to +1.20 °C of average) across most of NZ with pockets of well above average temperatures (>1.20 °C above average) recorded in Northland, Waikato, Wairarapa, Nelson, Tasman, West Coast, Canterbury, and Otago. Coupled with normal to high levels of rainfall across most of the country, it's no surprise that the veterinary team from Boehringer Ingelheim Animal Health reported high levels of parasite challenge through winter - clinical disease and deaths were seen in calves in the middle of winter on both the North and South Island.

## R2s at Risk

With favourable weather conditions over both autumn and winter for gut worms, R2s are at particular risk. This is because of a **neat little trick that the gut worms have**. They can stop their development for a short period of time inside the calf. This form of hibernation is done over the colder months and development starts again in spring. If there were lots of worms about in winter, then the danger is that they will all start to develop together in spring.

## Killing Hibernating Gut Worms

It's important to clear out the hibernating worms before they start to develop. R2s more commonly than not get a pour-on or injectable drench. Combination pour-ons, such as ECLIPSE will kill hibernating worms. Although, just a note on using pour-ons in winter - long winter coats and cold temperatures can increase the time it takes for the drench to go through the hide. The injectable drenches, ECLIPSE E, and oral drenches, MATRIX C, will also kill hibernating worms. It doesn't matter which way you choose to give your drench. What does matter is that it's done correctly. Check your guns, check your scales, check your technique and double check the dose.

## Weaning Drenches

The majority of young calves get an oral drench. The white drench (benzimidazoles or BZs) can only be given orally so it's a good idea to use this active when you can. We know that using all 3 actives together in a **triple drench reduces the chance of resistance emerging**. So, if you are drenching young calves, you should ideally be using a triple. This also means that you can guarantee there's a white drench component in there, as some dual actives don't contain a white drench.

## Make the move from 2 to 3

Double combination drenches that contain white and clear drench actives (BZ and levamisole, e.g. ARREST C) have been commonly used in this age group. Considering the need to manage parasite resistance in cattle, it's also appropriate to use

a triple combination as an alternative to a double. Our recommendation is to use **Iver Matrix Mini-Dose Hi-Mineral**. It's a unique triple combination cattle drench specifically developed for use in young calves under 120 kg due to the **inclusion of ivermectin** as opposed to abamectin. The **ivermectin** provides excellent control of the *Ostertagia* spp. (brown stomach worm) and will support the reduced chance of developing parasite resistance on your property.

**The climate is changing, the parasites are evolving, don't get left behind.**

Speak to us to get the latest advice on optimum drenching and reducing resistance development.



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Please let Colin know or Kellie know, or email the team at: [largea@rangvet.co.nz](mailto:largea@rangvet.co.nz)

# GIVE NON-CYCLERS A HELPING HAND

## Timely intervention = best payback

### True or false: Treating non-cycling cows breeds for infertility.

**False!** Most cows that fail to ovulate by planned start of mating (PSM) are later calvers, or are in energy deficit rather than poor breeders.

What is true however is that non-cyclers cost you a lot of money if you delay taking action in the hope that they will start ovulating on their own.

New Zealand research has shown that treating non-cycling dairy cows with the best modern non-cycler programme results in 21 more days in milk on average, compared to untreated non-cyclers.

This extra milk yield is worth about \$210 per cow, leaving a healthy profit after deducting costs of treatment and the extra feed needed to produce that additional 34 kg of milk solids.

We can calculate a ROI using your own herd figures, but the bottom-line is don't delay taking action – non-cycling cows treated at the right time with the best non-cycler treatment program produce an incredible 7 times more milk compared with treating 3 weeks into mating.

But wait, there's more. Timely treatment of non-cyclers means these cows are inseminated on the first day of mating, giving more AB heifer calves as well as more milk. In addition, fewer non-cycling cows need treatment next spring, as these earlier calving cows cycle earlier the following year.

Two things are essential to make this work for you.

First, tail-paint all calved cows five weeks prior to planned start of Mating (PSM). That way it's much easier to identify the cows not cycling 3-4 weeks later, and simple to draft these non-cyclers for treatment 9 days prior to PSM. Use the 'Ready To Mate' App for reminders on when to tail paint cows.

Second, use the best non-cycler program (including Novormon eCG). Several large-scale NZ studies have shown resultant early in-calf rates are significantly higher when this program is used and provide the best farmer returns.

Latest research from NZ company AgriHealth, involving over 2,200 non-cycling cows from 21 NZ dairy herds, showed that 3% more cows became pregnant with a higher Cyclase (PG) dose, so we now include this PregBoost in our recommended non-cycler treatment program.

This year for 28th September means five weeks until 23rd

October, which is PSM for that start calving on 1st August next year. Call the clinic to book in your non-cycling program for better in-calf rates.



## POST CALVING DISEASE FOCUS - LDA'S

Every year post calving we see cows with twisted stomachs (the fourth stomach, or abomasum, twists to the left or right). LDAs are the most common (left displaced abomasum).

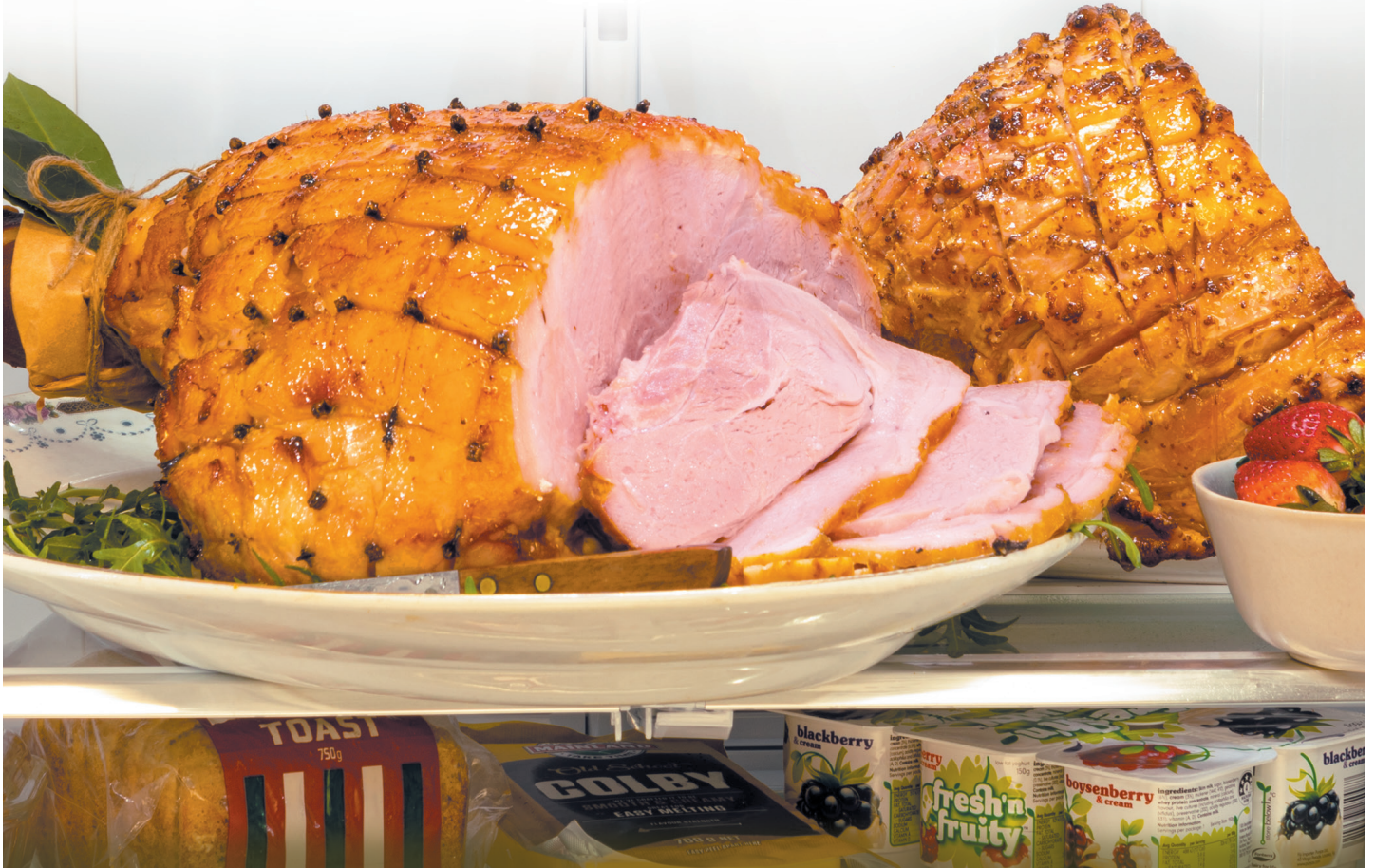
Cattle are especially prone to left twists (left displaced abomasum, or LDA) within 2-6 weeks post calving. Some risk factors are: poor transition management, diseases post calving such as retained membranes/metritis, room created in the abdomen after calving, genetic factors (e.g. Holsteins) and over conditioned cows coming into calving. As you can see, several of these can be prevented.

The main sign is a **decrease in milk yield** (often sudden). Otherwise cows are often just a little "off colour" and possibly also ketotic (negative energy balance). At least half have another disease as well.

An easy way to diagnose a twisted stomach is to listen with a stethoscope whilst flicking the left flank of the cow. A "ping" is heard from the excess gas in the twisted stomach. The twist can be corrected easily if promptly diagnosed by surgery, and then the stomach is sutured in place so it won't occur again. If caught early, these cows return to milk production and have no long term effects.

So...if you have any cows that have had a sudden milk drop or are just a bit "off" (check out your red mob!) **give us a ring and we'll look for a "ping"!**

*the traditional*  
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**2 x 1/2 HAM QUALIFYING PURCHASES:** 1 x 5 L ECLIPSE® Pour-On, 1 x 25 L EPRINEX® Pour-On, 1 x 20 L MATRIX® C Hi-Mineral, 1 x 10 L SWITCH Fluks 10.



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