

# Veterinary Centre MoozNews

## Reproduction Matters

Mat O'Sullivan BVSc – VETERINARY CENTRE Oamaru

### Second Round of Mating

The second 21 days of your AI period is just as important as your first. Staff motivation can however drop meaning heat detection rates can reduce.

- Heat detection aids (K-mars, ScratchE's) will improve heat detection sensitivity if scrutiny of tail paint drops.
- If using tail paint use a different colour to paint cows inseminated in the 2nd round of AI.
- Refer to your AI chart if in doubt about whether a cow is a return. If she was last

inseminated 18 -24 days ago there is a good chance she is a genuine return.

- As mating continues the number of cows in sexually active groups (SAG's) reduces. Ensure cows which are AI'd are returned immediately to the herd to form new SAG's to encourage tail paint loss in new cows coming on heat.
- Use paddock checks to increase sensitivity. These should be done 2 hours after the morning and evening shift



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## Are those Non-returning Cows Pregnant?

On average 10-15% of non-returning cows are later found not to be pregnant. These are referred to as phantoms. If you have a herd history of large condition loss post-calving, metritis, high non-cycler rate, high NEFA at calving, low BCS at mating, metritis and BVD

you have a higher than average risk. Consider identifying cows from the first 2 weeks of AI and scanning these in early December. Early identification and treatment of these cows will reduce the empty rate. Please contact your Prime vet for further details.

## The Cost of a Missed Heat

For the average producing farm in our area which AI's for six weeks and mates for a total of 10 weeks the cumulative cost of missing one heat in the first round is as follows:

- 17 days lost milk x (1.4kgMS/day x \$7.50kgMS) = \$178
- \$1,000 net cost of empty cow x 12.5% higher chance of being empty = \$125
- 30% reduction in chance of producing a heifer replacement = \$26
- Less the cost of extra feed above maintenance (17 days x 30c/kgDM x 6kgDM) = \$30

**Total opportunity cost = ~\$359/missed heat in the first round.**

- A missed heat in the second round costs increases to approximately \$463 due to higher empty rates (25%) and no heifer replacements!!



## OUR CLINICS

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**Waimate** Ph 03 689 7213

**Palmerston** Ph 03 465 1291

**Glenavy** Ph 03 689 8118

**Kurow** Ph 03 436 0567

**Omarama** Ph 03 438 9868

**Ranfurly** Ph 03 444 1020



by the Big Blue Cross

# Measuring Grass Intakes – more than just residuals!



Ryan Luckman BVSc (Dist) MANZCVS (Epidemiology) - VETERINARY CENTRE Waimate

Over the past month, with the transition onto second round grass, we saw a drop in rumination rates on most of our collar farms. On the whole this is to be expected – rumination is largely driven by the fibre in the diet, and as we get into the lush second round growth we see an increase in quality, and lower NDF (fibre). In the first round rumination rates typically sat in the 450-500 minutes per day range. However, this round we have seen many hover just around the 400 minute mark. (see table right)

One of the questions we wanted to answer during this transition was – does this matter? Are they still getting enough energy (ME) intake regardless of this lower rumination rate?

To answer this question we created a “Lactational Energy Calculator” (see below) which assessed the key drivers of energy output (body weight for maintenance, milk production, and walking distances) against the current diet. It then projects the likely gain or loss in BCS over a 30 day period if this was to be continued. Over October we were targeting a gain of around 0.2 BCS units for the month.

	Date	Daily Rumination Average
1	24/10/2021	482.2
2	23/10/2021	469.2
3	22/10/2021	467.1
4	21/10/2021	469.3
5	20/10/2021	442.9
6	19/10/2021	469.2
7	18/10/2021	464.2
8	17/10/2021	470.4
9	16/10/2021	440.5
10	15/10/2021	438.3
11	14/10/2021	410.2
12	13/10/2021	392.1
13	12/10/2021	374.5
14	11/10/2021	476.3
15	10/10/2021	393.3
16	9/10/2021	445.5
17	8/10/2021	412.1
18	7/10/2021	383.9
19	6/10/2021	421.4
20	5/10/2021	433.6
21	4/10/2021	485.4
22	3/10/2021	478.6
23	2/10/2021	457.9

Farm Name	Joe Bloggs				Date	25/10/2021	
	ME	Wastage	kg of Feed	Multiplier	Protein %	Protein (kg)	ME
Grass	12.5	10%	17	11.25	25%	3.83	191.25
Silage	11	25%		8.25	25%		
Grain	13	5%	3	12.35	11%	0.31	37.05
PKE	11	5%		10.45	14%		
Baleage	10	20%		8	17%		
Molasses	12	5%		11.4	4%		
Straw	6	40%		3.6	3%		
Other (i.e DDG)	12.5	5%		11.875	28%		
<b>Average ME of Diet (maintenance &amp; milk demand increases with lower ME feeds) 12.6</b>					<b>TOTAL DM (kg) Offered</b>	<b>20.0</b>	
					<b>TOTAL DM (kg) Eaten</b>	<b>18.2</b>	
					<b>Totals</b>	<b>22.8%</b>	<b>228</b>
						<b>Protein %</b>	<b>Total ME</b>
<b>Liveweight (kg) 500</b>					<b>Maintenance (MJME)</b>	<b>56.05</b>	
<b>Milk kgMS/Cow 2.20</b>					<b>Milk (MJME)</b>	<b>173.8</b>	
<b>Ver 3</b>					<b>Walking</b>	<b>5</b>	
					<b>Total Demand (MJME)</b>	<b>235</b>	
<b>Walk (km) Flat 2.50</b>							
<b>Walk (km) Rolling</b>							
<b>Walk (km) Hilly/Steep</b>							



<b>Feed Offered vs Demand (%)</b>	<b>Expected Weight Change</b>
<b>97%</b>	<b>-0.18 Kg/Day</b>
<b>-6.56 MJME</b>	<b>-0.17 BCS</b>
<b>NEGATIVE ENERGY BALANCE</b>	<b>Expected BCS Change over 30 days</b>
<b>Lactational Energy Checker</b>	

One of the key things we found during this analysis was that almost no-one was measuring their actual grass intake. The adage was that they were “grazing to residuals”, so were eating as much as possible. This statement seemed to hold true regardless of whether farmers thought they were feeding 15kg, 17kg, or 19kg of grass daily.

When we double checked this against entry/exit covers and hectares grazed the reality was that often the actual grass allocation on offer was 2kg+ lower than budgeted. This typically meant that the cows were in a negative energy balance on our calculator (also reflected on milk protein).

On many of our collar farms with lower rumination rates, these rates did appear to be reflective of the lush grass - their diets balanced on the calculators, milk protein was on the rise, and milk production was rising. However, we found it a valuable first step to use the Energy Checker to ensure that we could rule out underfeeding as a contributing cause to this rumination drop.

The Lactational Energy Checker will of course work without collars, so if you're keen to assess your current diet then get in touch with your prime vet. But please first measure your actual grass allocations!!

# IBR- Infectious Bovine Rhinotracheitis

**Luke Smyth BVSc - VETERINARY CENTRE Oamaru**

IBR is caused by infection with bovine herpes virus type 1 and is highly prevalent in New Zealand cattle. Approximately 90% of local dairy herds will have been exposed to IBR and it is the most common reason for China export heifers being rejected.

IBR cause herpes virus lesions in the respiratory tract and/or the reproductive tract. Typical of herpes virus, once an animal is infected it is infected for life. Infected animals can shed the virus on multiple occasions, especially when the animal is under stress and the immune system is overwhelmed.

Clinical signs of IBR are usually associated with an upper respiratory tract viral infection:

- High fever.
- Runny eyes.

- Nasal discharge. This is highly irritating, and animals will often rub their nose on sticks which can become stuck up the nose.
- Coughing.
- Difficulty breathing.
- Anorexia occurs, as a result the animals are lethargic and appear ill thrifty with reduced milk production.

IBR can also cause vesicles on the vulva and penis, neither of which is desirable during mating.

IBR tends to be a problem in herds when naive heifers enter the herd and are exposed to the herpes virus for the first time.

### Treatment

While there is no direct treatment to eliminate the viral infection. Infected



animals should be isolated from the rest of the herd and treated with anti-inflammatories and antibiotics.

### Prevention

Vaccine is available to prevent herpes virus infection in cattle and can be used in herds where IBR is problematic. It is especially useful to vaccinate naive heifers prior to entering the herd.



# BVD Bulletin

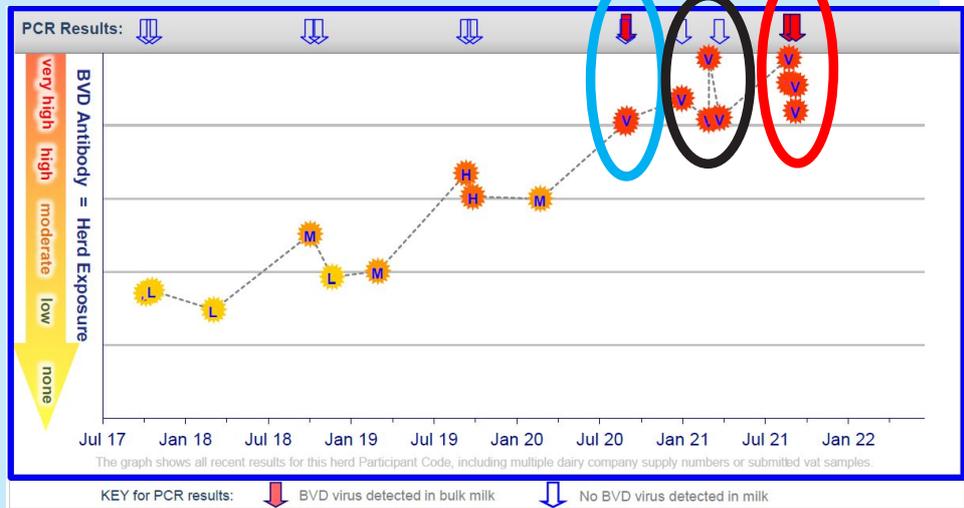


**Andrew Muir BVSc BSc (Hons)**  
VETERINARY CENTRE Oamaru

Bulk milk samples are coming through and there has been the odd farm that has gone positive in the bulk milk samples. The following is an example where they went positive in the bulk milk last season (blue circle). The PI was removed from the milking cows and they went negative (black circle). The client did the right thing and tested their replacement 2020 born calves and 2019 born heifers last season. Unfortunately some 2019 born animals were missed and they made their way into the herd this season turning the bulk milk positive again (red circle). They have been found and removed.

### Take home points

- If you want to keep BVD out of your herd you have to test replacements.
- Check that there is a BVD record for all animals that are going to enter a herd.



# Effect of Lameness on Reproduction

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

Lame cows continue to be among the three main problems we are seeing on our clients farms together with mastitis and infertility. Lame cows are clearly visible but often not treated promptly.

At this time of year with peak milk production and AB well under way the economic effect of lame cows can be huge due to lost milk production, lost body weight and the fact that lame cows are less likely to cycle on time.

Lame cows are half as likely to conceive and take on average 40 days longer to conception, compared to their healthy herd mates.

If you need help with lameness contact Andrew, Luke or Ryan at The Veterinary Centre.



# Uddernews

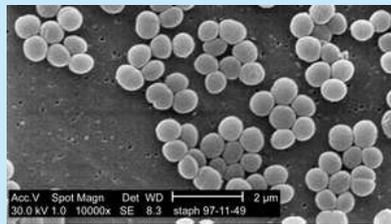
Hamish Newton BVSc PhD  
VETERINARY CENTRE Oamaru



## Staph aureus Testing

At the next herd test (2nd herd test) consider using the samples collected to identify cows that are carrying the *Staph aureus* bug. If you have a stubbornly high BMSCC it is likely there are cows in the herd that have a subclinical infection (an infection that is not causing obvious signs) and many of these infections will be due to *Staph aureus*. While these infections may not appear to be causing mastitis they are a source of bugs to infect other cows and will be raising the BMSCC. If you can halve your BMSCC you will end up with >2% more milk into vat. It is now cost effective, and easy, to test for this bug in the herd test samples. Cows that are found to be carrying *Staph aureus* could

be managed separately, be put on a potential cull list, or a list to receive an antibiotic dry cow therapy if she is not able to be culled. You can nominate individual cows to have their milk tested or give a list of criteria such as "test cows greater than 4 yrs. old that have a SCC greater than 400 at the current herd test". Give one of the Veterinary Centre clinics a ring and this testing can be arranged through LIC.



## Watch out for a Rise in BMSCC

We expect to see many BMSCCs spiking in the next week or so. "Stress" has been implicated as a cause of increased SCCs but experimentally this has not been demonstrated convincingly and estrus and stray voltage probably do not directly raise SCC, but do so by cows delaying their milk let down. When cups are on a cow that is not letting her milk down, at either end of her milking, the risk of mastitis increases. This highlights the importance of not over milking. You obviously want cows to express estrus but don't compound some unavoidable over milking with excessively long row times due to drafting etc. Your milking team may have to hang some cups between rows when large numbers of cows are being drafted or when touching up tail paint etc.

## Interpreting Herd Test Results

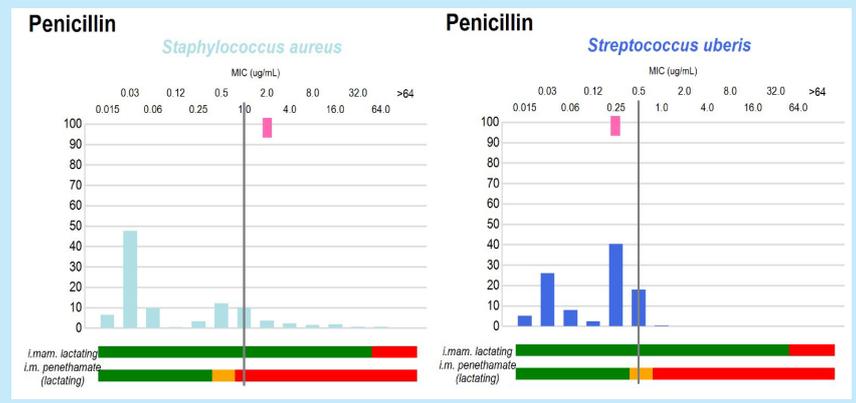
Many herd tests have been completed and hopefully you have studied these and identified your high SCC cows, but before you decide to treat these cows look for what might be the underlying factors that resulted in these cows getting infected. There have been many studies looking at treating subclinically infected cows and how to get the best economic return from treatment. What is apparent is, if the rate of transmission of infection is high, the economic return from treating cows diminishes. For this reason look for reasons that infection could be going from cow to cow and address these. These reasons are almost always associated with milking.

- Vacuum and pulsation
- State of the rubberware
- Cluster alignment
- Cluster attachment
- Cluster removal
- Over and under milking
- Teatspray application



## Antibiogram Results

Many of you will get a phone call from us in the next few weeks with the results from your "Antibiogram" test. An Antibiogram, taken from a Bulk Milk sample, cultures any *Staph aureus* and *Strep uberis* that is present, and then determines what concentration of different antibiotics are required to kill these bugs. We will be using this data to either confirm that what has been scripted for your farm is still appropriate, or to make a rational change to what we dispense for your herd going forward.



# Bull Management

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



'Rule of thumb' is to have 1 sound bull to 30 non-pregnant cows. Ideally there should be two teams of bulls and these should be changed every second day.

A bull is capable of mating up to 3 cows a day before semen quality drops. The daily work rate in most herds will be the same after the 3rd week as it is in the 5th week as the number of cows coming on heat on a daily basis will be similar. Like-wise the work rate will be similar between the 6th week and the 8th week.

Therefore in a 700 cow herd which is doing 4 weeks of AI, they will need (based on 3 weeks of mating):

- 700 cows x 82% submission rate x

52% conception rate = 300 pregnant, this leaves 400 non pregnant, which requires 13 sound bulls in the herd at all times

In a 700 cow herd which is doing 6 weeks of AI, they will need:

- 700 cows with 65% 6 Week-In-Calf Rate = 455 pregnant
- This leaves 245 non-pregnant, which requires 8 sound bulls in the herd at all times.

Bull numbers in general can be reduced by about 40% at the end of each cycle.

Remember to ensure that bulls have been both vaccinated and tested clear for BVD.



## Veterinary Centre MoozNews EXTRA

### Timely Reminders & Handy Hints for November

- Pink eye in calves – We are coming up to the Pink eye season in calves. A single dose of Piliguard vaccine given 3-6 weeks before the risk period will significantly reduce the risk of an outbreak.
- Covexin 10 – If you have unexplained deaths in young stock every year despite using 5 in 1 vaccine, you should consider using Covexin 10 in 1 vaccine, which provides additional protection against two other major clostridial diseases – Clostridium sordelli and Clostridium perfringens type A.



# Calf Weaning

**Jess McKenzie BVSc - VETERINARY CENTRE** Waimate

Making sure a calf is fully prepared before weaning reduces the chance that they will need preferential treatment post-weaning. Preferentially managing small groups of animals to 'catch them up' is time consuming and can be difficult to manage, so it is best avoided by good management early on.

Factors to consider before weaning calves:

- 1) **Rumen Development** – Are they consuming the desired amount of feed? Is its rumen sufficiently developed to be weaned off milk?
  - The only way this can be assessed is by measuring the amount of concentrate or pasture they are readily eating, which should be at least 1kg/day of meal or 2kg/day of pasture.
- 2) **Weight** – Individual calves should reach a minimum weight prior to weaning.
  - No specific weaning weight has been defined by research, however common weights used are 70kg for Jerseys, 80kg

for Crossbreds, and 90kg for Friesians.

- Reaching a minimum weight is an important milestone as it indicates that they are ready to transition from individual to group management.
- 3) **Age** – A combination of weight and age is often good to use when making the weaning decision eg. a minimum of 8 weeks AND 90kg.
- 4) **Ability to Compete Within a Group** – Is the calf able to compete within the group before they are weaned? Any that aren't should be held back until they are.

The aim is to have calves that continue to gain weight post-weaning - they should never lose weight or remain static. Some animals don't thrive post-weaning so it is a good idea to weigh them 7-10 days post-weaning to make sure they have gained weight. Any that haven't may need continued access to calf meal, regardless of weight or age, or examination by a vet.

### Relocating Calves

Relocating calves can result in growth checks, or be a trigger for other animal health issues including pneumonia, scouring and parasites. Recently weaned calves are at particular risk as they are also undergoing changes in diet, rumen development and are usually younger in age.

A few criteria to consider for relocating recently weaned calves include:

- Fully weaned and off milk for at least two weeks.
- Meet the minimum target weight for their age.
- Transitioned onto a full pasture diet or supplement provided for transition.
- Competing and coping well within the group.
- Drenched and vaccinated.
- In good health.



## Day 24 of Mating

### Have all the cows been put up?

If a farm has done early intervention with non-cyclers during the first 3 weeks of mating, then by day 24, in theory, the whole herd will have been mated. This is seldom ever the case!

There will be a mixture of unmated cows by this date which will include cystic ovaries, late calvers, missed heats, pyometras and genuine anoestrus cows.

If you have a significant number of these cows it is worth getting them scanned or palpated at day 24-26 and provide them with specific treatments.



**Johne's News**



**Andrew Muir BVSc BSc (Hons)**  
VETERINARY CENTRE Oamaru

The question is asked of us whether it is worth testing for Johne's disease on a particular farm. If you ever have to petfood a cow with Johne's I would say yes. Alternatively you could test the effluent on your farm to see if the Johne's bacteria (*Mycobacterium avium paratuberculosis*) is present. LIC has devised a new testing procedure to enable this to be done.

The test involves taking four effluent samples and submitting them to LIC for analysis which takes about 10 working days. It costs \$195+ GST. The result is a yes or no, it doesn't give you a concentration of bacteria.

If you wish to discuss this form of testing contact your prime vet.

## BVD Vaccination of Calves



Testing your replacement calves is an easy and effective way to nip BVD in the bud on your farm. It means that infected calves can be removed from a herd while they are young and before they cause more problems especially if they come into contact with cows or heifers during mating. If you are considering DNA testing your calves doing a BVD test only requires ticking an additional box on a form if they are 35 days of age. If you aren't going to DNA test then getting a blood sample or an ear notch is an easy way to check your calves.

## Product of the Month

# Matrix

## MINI DOSE HI-MIN

### Recommendations

- Triple Drench Technology delays the onset of drench resistance
- Triple action drenches are best practice for calves over 100kg

### Active ingredients

- Abamectin
- Levamisole
- Oxfendazole

ACVM A10132



### Also Contains

- Cobalt (4.4mg/ml)
- Selenium (1mg/ml)

### Application

- Oral Drench

### Withhold

- Meat withhold 14 days

### Price

- \$0.59 Excl GST per 100kg

## the traditional Festive Ham Promo

Enjoy a delicious Ham-on-the-Bone!



Yours this season when you purchase any of the selected drenches from the Veterinary Centre by the Big Blue Cross

