



# MOOZNEWS

## Poor Transition Impacts Mating

### Background

As part of our routine calving 'Tracecheck' monitoring package, we have been measuring serum NEFAs (Non Esterified Fatty Acids). The level of NEFAs at day 3 post calving provides a good indication of how much fat cows are mobilising post calving and therefore an indication of how well transition is occurring.

Overseas work has also shown that high NEFA levels at this time can also affect subsequent reproductive performance (particularly conception rate).

We examined the results of 387 cows from 44 herds from last season and analysed their reproductive performance. Cows were divided into 3 groups based on the NEFA levels at day 3 post calving. These were <0.6mmol/L, 0.6-1.0 mmol/L and >1.0 mmol/L.

There was no difference in the 3 week submission rate of the 3 groups, but

the pregnancy rates at 3 and 6 weeks had significant differences.

### Discussion

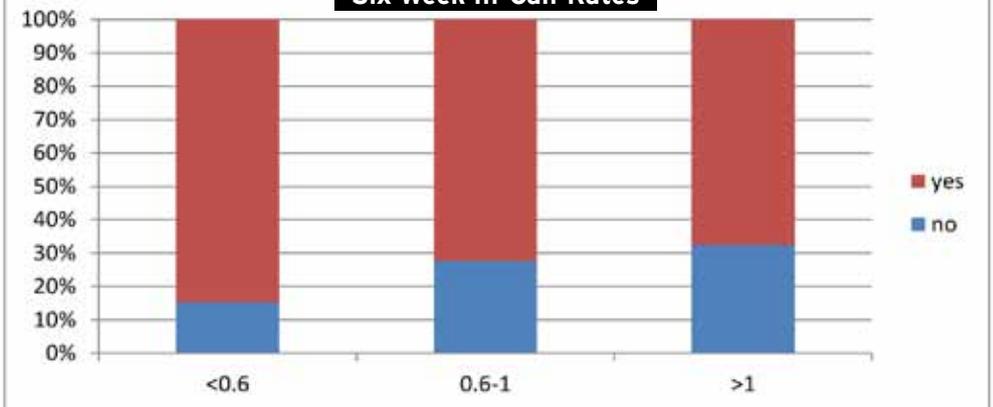
Overseas studies have shown that NEFA are incorporated into developing eggs on the ovary at calving. When this occurs at high levels the egg quality suffers.

In this study, roughly 1/3rd of cows fell into each group. Cows with NEFA above 1.0 tended to have 6 week in calf rates 17% lower than cows with NEFA below 0.6. As there was no difference in submission rate between the three

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Six Week In-Calf Rates



### CALF DE-BUDDING SERVICE

We offer a calf de-budding service, using a gas powered or electric dehorning iron and local anaesthetic to minimise discomfort to calves or checks to growth rates.

**PLEASE BOOK IN CALF NUMBERS EARLY IF YOU WISH TO USE THIS SERVICE.**

groups we can conclude that NEFA is impacting on conception rate.

The area of nutritional management and cow preparation can have major

impact of reproductive performance. Talk to your Prime vet in how to best transition your cows.

*"the leading light in animal health"*

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# Are your calves reaching their full potential?

We all recognise that rearing good heifer calves is an important part of a successful dairy operation but recent research has shown up how important the pre-weaning period can be in the life of the heifer. A large 2012 study showed a very strong link between average daily weight gain in milk-fed calves and milk production in the first and subsequent lactation, along with better udder tissue development and increased feed conversion efficiency. Bottom line: calves doing well before weaning reliably go on to do well as heifers.

Achieving excellent pre-weaning growth rates requires good animal health practice, a health living environment and a great feeding regime. As vets we can help by

- Fine tuning the treatment of sick or underperforming calves.
- Training staff to identify common management and animal health problems.
- Individual treatment of critically ill calves.
- Examining the risk factors in the calf rearing operation and helping to formulate an action plan to prevent problems or tackle a current problem.
- In the event of a scour outbreak, helping to get a management plan in place to stop the outbreak in its track.



- We are currently weighing heifers post winter grazing and now 40-50 days pre-mate. A substantial number of yearlings are behind target.
- Are your yearlings on target? Have your heifers reached puberty?
- If you are intending to use the 6 day 'Why Wait' prostaglandin (PG) program on yearlings for AI, heifers must have cycled pre-mating.
- A progesterone (CIDR) synchrony program is a viable alternative in lighter heifers. Discuss the options with your Prime Vet.

## New Vet



Lucie Stanley

Having graduated in 2006, I have worked in a mixed practice in north Wales for 8 years. I particularly enjoy bovine reproduction and soft tissue surgery.

I have worked in Waimate vets for the past two calving seasons and have returned for two years with my two dogs and cat.

I enjoy tramping, climbing and skiing basically anything outdoorsy. Whilst the dogs and I are learning kiwi I am trying to teach kiwi cows welsh.

## BVD bulletin

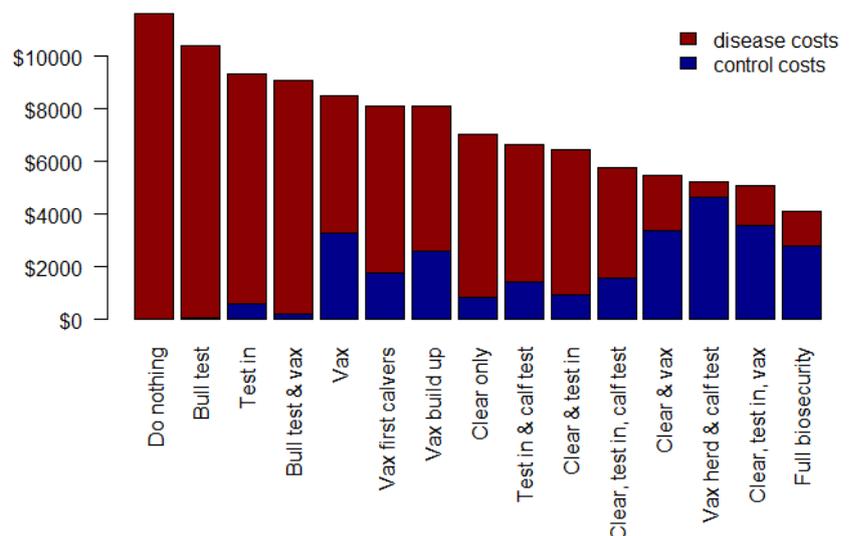


Andrew Weir a vet in Eltham Taranaki has just recently completed economic modelling of BVD control in New Zealand. His model was based on 10 years worth of data with about 5.1 million milking cows in the model every year. This provides a very strong data set.

The key findings of Andrew's research were:

- When controlling BVD in a herd doing anything is better than doing nothing. Generally, the more you do the greater the economic return.
- The linchpins of BVD control are calf testing and herd vaccination. You need to do at least one of these to effectively control BVD.
- Clearing infection is really important, even if you are choosing to vaccinate.
- Testing all bought-in cattle is important and worthwhile.
- Securing your boundary fences is worth doing.
- The cost of BVD in the average 406 cow herd that has no control measures was \$11,655/year.
- Using full biosecurity measures the net cost can be reduced by \$7,500 year (e.g. testing calves, bulls, bought-in cows, actively clearing persistently infected animals and vaccinating bulls, calves and heifers and improving boundary fencing).
- Clearing infection and vaccinating was the next best option, reducing net cost by \$6,500 in a 406 cow herd.

Average discounted cost per year for a 406 cow herd



# Scours in calves - by Nicola Neal

A scour outbreak in your replacement heifers can have a devastating effect, not only on the calves but also the farm team. As always, prevention is better than cure so here are a few simple ways to decrease the chance of getting scours.

1. Keep the environment as 'clean as possible' Don't overcrowd pens, allowing 1.5 sqm/calf and no more than 20 calves/pen. Try not to do any more than 2 batches of calves through each pen. Disinfect pens regularly with Virkon and top-up or change bedding if it starts to get mucky.
2. Ensure all calves get a minimum of 2ltrs of fresh, good quality first-milking colostrum within 12 hours of being born and another 2 Litres in the next 12 hrs. This may require you to pick up calves more than once daily or tube calves in the paddock in the afternoon.
3. Ensure good routine in the calf shed, with milk at a similar temperature and consistency at each feed (i.e. not colostrum at one feed, then milk powder at the next), consistent knowledgeable staff and well maintained, hygienic feeding equipment.

If you start to see calves beginning to scour, here are some ideas to maximise recovery and reduce any further sick

1. Spread calves out as much as possible, either across pens or out into clean paddocks, weather permitting. Ideally paddocks would have some shelter, as turning out calves can be stressful and make a scour problem worse.
2. Consider getting 10 blood samples taken from 2-8 day old calves to check if they are getting enough colostrum, early enough for it be absorbed properly.
3. Increase disinfection of the calf pens, calf trailer and feeding equipment. Don't forget your boots and clothing too!
4. Get professional advice! There are

many effective treatment and management techniques out there, depending on the specific cause of your outbreak.

5. Ensure all scouring calves are getting adequate fluids each day. This is 6-8 litres of fluid/day, with both good quality electrolytes and milk being fed at different times during the day.
6. Critically sick calves that can't get up may need IV fluids and or bicarbonate to get them up again. I recently treated a calf which was very close to death with bicarbonate into the vein and had it up and drinking within 3 hours. Don't give up too easily as we can often get these valuable replacements right again!



**Moribund calf getting bicarb treatment**



**Calf 3 hrs post bicarb treatment**

## Animal Health Planner Posters

You should now have received a laminated 'Veterinary Centre Animal Health Planner Poster'. This breaks up the year into 12 calendar months and we have listed all potential actions you should be thinking about over the course of the year. Three blank columns are present beside each month for you to assign a date, a person in charge and an area to tick when completed. Please place these in a prominent area - i.e. staff room so the whole farm team can be involved in the planning of the year.

**50 days to mating - is your mating plan in place?**

# Uddernews



Mastitis levels to date this season have been very low. This hopefully will flow on to a good season. In general, if the season starts well then it will continue well, and if it starts poorly it usually goes wrong again in February or March. Now that there is a bit more time available, as calving slows up and before mating starts take the opportunity to ensure your milking procedures are being followed by all staff.

- Is the teatspray is being made up correctly?

- Do you have a fool proof teatspray recipe that everyone can follow?
- Are you using about 4 litres of teatspray per 100 cows a day?
- Is the teat skin smooth and supple - do you need to add glycerine?
- If you have an automatic teatsprayer is it getting the spray on the teats or

does it need adjustment?

- Are all the milkers removing cups correctly?
- Are cows getting over milked?
- Are the milkers wearing gloves?
- Are milking times efficient? Check the following website [www.dairynz.co.nz/milking/in-the-dairy/max-t](http://www.dairynz.co.nz/milking/in-the-dairy/max-t)

## Humeral fractures

As a practice we have recently seen another case of humeral fractures in heifers around calving. In this instance 2 heifers were seen that had sudden nonweight bearing lameness in their front legs. The farmer had seen a heifer a couple of days previous which presented in the same way. The heifers had recently been trucked but this was not likely to be the cause. There have been several cases of this recorded nationally over the last 6 years but no known cause has been identified.

Researchers who have been following the cases suspect that growth checks in heifers before they hit puberty (12 months of age) are

a cause. The suspicion is that growth checks interfere with the laying down of skeletal framework in bones. This can result in bones that are weaker. The recommendation is to ensure that heifers don't have a growth check

and they are weighed to ensure they are growing to target. There could be a component of copper deficiency so it is important to ensure that there is adequate trace element supplementation. It is also important to ensure there is adequate internal parasite control and prevention of disease like BVD. In the case seen recently the

heifers had had coccidiosis as calves which may have been a contributing factor



## Covexin 10

Sudden deaths in stock, especially young stock, are most commonly caused by clostridial bacteria. Five common types of Clostridia are included in the traditional '5 in 1' vaccines. Two types of Clostridia not found in these '5 in 1' vaccines are Clostridium sordellei and Clostridium perfringens type A. These two are responsible for a large proportion of sudden deaths in cattle under 36 months of age. Covexin 10 contains protection against 10 types of Clostridia. Vaccination with 2 doses 4 to 12 weeks apart and a booster at 12 months of age will provide lifetime protection. Covexin 10 has an added benefit over '5 in 1' vaccines in that the first doses can be given as young as two weeks of age.

## High Coccidiosis Risk in Calves

In moist and cool conditions coccidia may survive for up to two years on pasture. We have now had three favourable seasons in a row for coccidia survival and farms with dedicated calf rearing paddocks are at high risk. Calves are typically greater than 3-4 weeks of age and present with a bloody diarrhoea which may contain gut lining. The

tail area is often smeared with this bloody diarrhoea. Calves appear very uncomfortable and will be seen straining with tails held in the air. A metallic sheen may also appear on the surface of faeces after a couple of hours. In severe cases up to 10% deaths can occur due to anaemia and dehydration and growth checks in survivors may remain for many months.

Calf meals which contain coccidiostats are only protective once calves are ingesting about 1kg/day. If treating/preventing an outbreak we recommend Deccox for at least four weeks, starting 2-3 weeks after being on pasture or Baycox C as a singular oral dose 3 weeks after being on pasture. Amphoprim can be used in severely affected animals as it also gives anti-bacterial protection.

## Preparation for mating



Much of this season's mating performance will already have been determined by; your cow condition at calving, the degree of condition loss between calving and mating and your calving spread. However plenty can still be done to optimize your result.

## Premating Check List

Tail Paint - this should go on 35 days before the planned start of mating. Any cows calving after this date should get a different colour tail paint to identify late calvers for the purpose of non-cycler treatment.

- Metricure all 'at risk' cows 2-3 weeks post calving ('at risk' cows = RFM's, vaginal discharges, dead calvings)
- Metricheck herd in batches. e.g. Your August calvers should be done early September, later calvers in late September - early October. Cows can be checked 10 days post calving.
- Ensure adequate trace element status - test your herd late September. Selenium, Iodine, Copper, Zinc and Vitamin B12 deficiencies can all affect reproductive performance. Vitamin B12 levels are generally low in the months from late September to December. Strategic use of vitamin B12 in late September and again four week later anecdotally increases submission and conception rates.
- BSC your herd in early September and again at early October. This will help with strategic feeding and decision making.
- Run light cows as a separate herd at least 3 - 4 weeks before PSM and feed preferentially.
- Drenching lighter animals and heifers will give a significant reproductive boost. In the Eprinex trial involving the Lincoln Dairy Farm, treated heifers conceived on average 12.9 days earlier than untreated heifers.
- Feeds or feed additives such as grains or Rumensin, boost proprionate production in the rumen, which have been shown to increase submission rates.
- Feeds with a higher fat content (e.g. PKE) fed just before and through the mating period may increase C.R.
- BVD vaccinate heifers and cows in herds where BVD has been diagnosed or in herds experiencing higher than normal embryonic loss, abortion and empty rates. Animals should be vaccinated twice, four weeks apart with the final dose at least two weeks before PSM. Also look to eradicate PI animals.
- Start sourcing bulls now. Ensure they are BVD vaccinated and blood tested BVD/EBL free. Consider also getting bulls vaccinated for Pink Eye if this has been a problem in the past. Bulls ideally should have their second BVD dose four weeks before the introduction to cows.  
A 700 cow herd using AI for 6 weeks will require 8 bulls in the herd at all times, plus 8 extras to rotate on an every second day basis.  
A 700 cow herd which AI's for just 4 weeks will require 13 bulls in the herd at all times and 13 extra to rotate.
- Work out your intended planned start of mating, and book in your synchrony programs now.
- Plan to start mating heifers 5 - 10 days earlier than the herd.
- Submit non-cyclers for treatment 5-10 days before PSM.
- Book in a "Repro Ready" consult with your vet.

## FIL TAIL-PAINT



FIL Tell Tail Aerosols 500ml \$8.95  
FIL Tell Tail Applicators 1L \$14.75  
FIL 10 Litre Pails \$126.50  
ALL PRICES INCLUDE G.S.T

# Endometritis (dirty cows)

Endometritis by definition is an infection of the lining of the uterus. Any cow which has an infection in her uterus will suffer a delay in resumption of cycling activity (one cause of non cyclers). If infection is still present at the time of insemination then this will interfere with sperm and embryo survival. Long standing uterine infections cause permanent uterine scarring. If the surface of the uterus is scarred implantation and survival of the embryo may also be impaired.

Recent trials have shown that cows treated with a Metricure 10-28 days post calving have far better subsequent reproductive results than cows treated 5-8 weeks post calving. **August calving cows should be checked now.**



You may have by now read about "repro ready" in the rural media. This is a consultation process, which takes about 30 minutes to an hour, covers off all those important areas in the lead up to mating. Get prepared for mating, get "repro ready", contact one of our vets to book in a time.

## Double Shot Prostaglandin Heifer Synchrony

Early calving heifers become early calving second calvers. Your heifers are also your highest BV animals you will breed. Early mating of your heifers will achieve early calving R2's with high BV calves.

Two recognized prostaglandin programs are available in heifers. These condense the mating period, thus minimizing the work load and also very effectively condense the subsequent calving spread. A double shot PG program involves two PG injections 14 days apart. For most farmers this program must be initiated between the 1st and 9th of October.

## Controlled trials have shown that...

- A single dose of Eprinex Pour On can return ~ \$56.00 per cow, based on a payout of \$6.00 per kg milk solids.
- First calving cows treated with Eprinex Pour On conceived an average 12.9 days earlier than untreated controls.



## Early Acute Stage Uterine Infection i.e. – Metritis & RFMs

Cows with uterine infections in the first 10 days post calving are often systemically ill. They rapidly lose weight and have reduced feed intake. This may occur in the presence of an RFM, or persist after the membranes are expelled or may occur due to another cause of contamination of the uterus.

Cows with RFMs should be marked, recorded and the membrane trimmed to the level of the vulva. Gentle traction should be applied if the membrane is still present 7 days post calving - do not forcibly remove! Cows which look ill or have high temperatures should receive long acting anti-inflammatories such as Metacam 20 or Rimydal LA in conjunction with systemic antibiotics.

The new antibiotic Excede LA is an excellent choice for treating these cows. A single dose provides an extended treatment period of 4-6 days, it has very good coverage against the many different bacteria found in these infections and has nil milk withhold so cows may remain in the milking herd.