

The Importance of Treating Pain & Inflammation

It's not just our famous All Blacks selling Voltaren Gel who realise the importance of treating pain & inflammation. Cows that are lame or ill, for whatever reason, between calving and mating have significantly reduced pregnancy rates. Many studies worldwide show that cows that have mastitis or are lame, even very early in the season, do not get in calf as easily as their unaffected herd mates, and obviously cows with uterine issues such as metritis are at high risk. These are all painful, stressful conditions.

Pain equals more stress. Stress equals increased blood cortisol and/or adrenaline levels.

As this is a chronic situation, rather than a quick fight or flight response, the outcome is also more long term. Drymatter intake falls as appetite is suppressed – cows are in a deeper and longer lasting negative energy state. This reduces ovarian activity so the subsequent conception rate is reduced. Lower energy levels decrease the chance of cows displaying obvious behavioural signs of heat. Less eaten means poorer immune response, slower recovery and loss of condition. Less condition means less fat ingredients available to make the reproductive hormones necessary for successful pregnancy.

Consequently, treating ill cows as soon as possible not only reduces the direct effects of the problem itself but improves chances of a more successful subsequent reproduction. An important part of this treatment is to reduce the pain response – this may well have a bigger part to play in mating results than the disease itself.

For lame cows - reduce walking especially on hard surfaces, milk OAD at most, and make feed easy to collect i.e. take extra feed to the cow.

Even when antibiotics are not required or indicated, anti-inflammatory pain-relief like Metacam, Ketomax, Flunixin or Rimadyl should always be considered. Nowadays most have nil milk withholding.

There is no excuse to ignore pain and inflammation in your cows, especially when the beneficial effects of treatment are highly cost effective.

Getting pregnant when you are already struggling is not a good idea for a dairy cow as it puts even more energy demands on her. Pain and/or stress in early lactation interrupts normal cycling, ovarian activity and hormone production. The end result on farm may be varied including anoestrus (i.e. no cycling) and cystic ovaries of various degrees depending on the status of the cow when the problem began, how long it is before resolution and how severe it was. One day of pain or inflammation can delay pregnancy by more than one week.

The moral of the story: **Do not neglect problem cows.** Treat as early as possible and don't skimp on the TLC. This is important from a welfare point of view, but it also has financial implications.

Blood in Milk – Is it Mastitis?

This is a relatively common occurrence - a cow or heifer calves down with a very full udder (almost to the point where it looks like she might burst) and pretty much from the first milking she has blood in her milk.



Is it mastitis and should you treat it?

Good question. Initially this is simply blood due to excessive pressure within the udder & in many cases as soon as she's been milked a few times the pressure is reduced; the bleeding stops & milk returns to normal. However, the complication is that blood is a wonderful medium for the growth of bacteria so it's not that uncommon for mastitis to develop.

Our advice is initially to assume the bleeding is due to pressure (unless the cow is sick) & all you should have to do is give the cow an anti-inflammatory (Metacam, Ketomax, Flunixin or Rimadyl), milk her twice a day & wait for the milk to return to normal.

However, you also need to monitor the cow and the udder & milk for signs of pain, illness or clots (blood clots &/or mastitis clots). If there is any suggestion that the situation has changed then you need to treat it as mastitis.

If it's just in one quarter then use an intramammary. If it is in multiple quarters then use an injectable such as Penethaject or Mamyzin.

And don't forget the pain relief.

Bear Conversion

A priest, a minister and a rabbi want to see who's best at his job. So they each go into the woods, find a bear, and attempt to convert it. Later they get together.



The priest begins:

"When I found the bear, I read to him from the Catechism and sprinkled him with holy water. Next week is his First Communion."

"I found a bear by the stream," says the minister, "and preached God's holy word. The bear was so mesmerized that he let me baptize him."

They both look down at the rabbi, who is lying on a gurney in a body cast.

"Looking back," he says, "maybe I shouldn't have started with the circumcision."

Husband and wife had a bitter quarrel on the day of their 40th wedding anniversary! The husband yells, "When you die, I'm getting you a headstone that reads: "Here Lies My Wife - Cold As Ever" "Yeah?" she replies. "When you die, I'm getting you a headstone that reads: "Here Lies My Husband - Stiff At Last"

“Why Wait” programs

You may have heard of “Why Wait” programs before. What are they and how do they work?

First you must understand that this only works on cycling cows so isn't a treatment option for non-cyclers.

That's what cidrs are for. These programs require insemination to observed heats (so we're not talking fixed-time inseminations here). Why Wait programs are designed for use with Prostaglandins (PG), which act on the corpus luteum (CL) in cycling cows causing them to come on heat within about 5 days of injection. The CL forms on an active ovary about 5-7 days after oestrus and goes away about 5-7 days before the next heat is due.

This means there is a 10-14 days period between cycles when a PG will be effective.

There are two basic approaches that can be used in a “Why Wait” program:

1. Two PG shots 11 (10-12) days apart. If you select a day for the first injection about 11 days out from planned start of mating (PSM), there will be a group of cows (about 1/3) that do not respond because they were in the 5-7 day period between heats. If we accept that and inject everything, then repeat that injection 11 days later we, in theory, will pick up all the cows that responded to the first injection plus the group that didn't respond initially, therefore causing all cows with active ovaries to cycle in a 5-7 day period after the second injection. This method is more expensive because you are injecting everything twice but has the advantage that they should all cycle in the first week of AB and recording heats is less involved than the second method. **However**, this option has fallen out of favour because recent studies suggest that the conception rate following the second injection is actually lower, so our preference is option 2.
2. **Batch injecting**. This involves great attention to detail and recording of all pre-mating heats in a 3-4-week period prior to PSM.
 - We know we can bring a cycling cow forward about 10-14 days by injecting with PG 5-7 days after her last recorded heat, therefore:
 - Once we know when a cow is due to cycle we can do the following:
 - a) Leave all cows due to cycle in first week untouched.
 - b) 2 days prior to PSM, inject all cows due to cycle in 2nd week of AB. This will bring them into the 1st week.
 - c) A week later, inject all cows due to cycle in third week, bringing them into second week.

In theory, this brings all your active cows in for AB in the first two weeks and has used less PG than the first method, therefore less cost. Your synchrony won't be as tight as the first method, but conversely it will cost less and give you a slightly less hectic start to AB. And, most importantly, a better conception rate.

It does require more effort in terms of recording heats and planning ahead for injections at the right time.

Generally, this involves a marking system with different coloured tailpaint for each group to make identification easier.

Performance Ready

Getting the trace element status of your herd right prior to mating is a priority for all farmers. Oral supplementation through water or feed will often do part of the job, but the high requirements for cycling and early pregnancy often mean that demand exceeds supply just when it's needed the most. At these times an injection such as Multimin (containing selenium, copper, zinc and manganese) is often needed to rapidly increase the critical trace elements for the mating period.



Selenium and copper are well known as important trace elements for mating. More recently the importance of zinc and manganese has been recognised, with zinc required to produce a healthy lining of the uterus, and manganese involved in developing a good quality egg. Together these four trace elements help to produce and maintain a pregnancy, as well as supporting the immune system to better protect the growing foetus.

A New Zealand study involving 6 herds and over 2000 cows throughout the country has investigated the effects of injecting with Multimin prior to mating. Supplemented cows got in calf over 3 days earlier on average, lost half as many pregnancies and had 3.3% higher pregnancy rates overall. The return on investment for a 5ml injection was over 4:1. If you've seen the results of using Multimin in your newborn calves this year, now is the time to be extending the benefits to the rest of the herd by treating cows prior to mating.

Exit Drenching after Prelamb

Use of a long acting product can accelerate the development of drench resistance. Long acting drenches have the potential to select for resistant worms and against susceptible ones. The result of this could be the inability to use these great performance enhancing products in the future!

One of the **management** options that you can use to reduce drench resistance risk is to use an '**Exit drench**'. An exit drench is given after the payout of the long acting product, regardless of which product it may be e.g. moxidectin oral, injection, capsules.

Timing of an exit treatment may not be ideal when trying to work in with existing management practices, but must be considered better than not exit drenching at all. An exit drench could be considered at tailing for 'shorter' long acting products such as moxidectin oral or injection. For longer acting products such as Cydectin Long Acting or capsules, treating at pre-weaning/weaning may be more manageable.

A suitable exit drench is one to which there is no resistance of the preceding chemical class, i.e. is able to kill ML, BZ or levamisole resistant worms. Startect is the ideal choice as an exit drench because it is the only product on the market that contains a new drench class, and it's in combination.

