

Dairy Farmer Newsletter October 2013



CLUTHA · V · E · T · S ·
Animal Health Centre



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Around the Practice

After last years deluge, we're all a bit nervous to see what October will bring. So far, cows appear to be in reasonable condition, with good numbers already cycling. Bulk Somatic Cell Counts are down and lame mobs of a manageable size.

The large Animal team at Clutha Vets has been busy debudding calves and metrichecking, while the calving cup is in full flow. Elsbeth, the winner from last year, is organising the competition this

year, and is already having to make some dubious calls on bonus points!

Later this month we farewell our locum vet, Felicity Keenan who has been helping out this Spring. Felicity has taken on a fair amount of debudding and the title for 'A Team' is being hotly contested (Andrew thinks he might just about catch up when Felicity leaves us, but we have our doubts!).

CIDRSynch Programme

As for last year our recommended treatment for non-cyclers will usually be a CIDRSynch programme which takes ten days from insertion to fixed time insemination. The timing of events within the programme is crucial, and there is little room for error. Please refer to the table below, discuss thoroughly with your vet and AI technician, and do not suppose that you can change a thing!

Event	Timing
1. Insert CIDR + Inject GnRH	Day 0 (eg Monday) – <i>time not important</i>
2. Remove CIDR + Inject PG +/- eCG	Day 7 (Monday)
(AI to detected heat)	
3. Inject GnRH – all unmated cows	Day 9 (Wednesday) – <i>50-56hrs after 2</i>
4. Fixed time AI	Day 10 (Thursday) – <i>16-20hrs after 3</i>

Once your first visit has been completed you should contact your AI technician and get him/her to commit to an insemination time on Day 10. The timing of CIDR removal (Day 7) and GnRH injection (Day 9) will depend on this. You also need to bear in mind how long it is likely to take to inseminate these cows (eg 2 hours for 100 cows). If the technician will start serving those cows at 12 midday on Day 10, and anticipates taking about 2 hours, then the GnRH injection must be given between 6pm-8pm on Day 9 (ie 16-20hrs previously). CIDRs will need to be removed (& PG injected) 50-56hrs before this, so between 12pm and 4pm on Day 7 if GnRH injection is to be at 6pm on Day 9. If you aim for 72 hours between CIDR removal and AI this should work well.

Heifer Synchrony

If you are considering AI on your replacement heifers, then some sort of synchrony programme may be advisable. There are a number of different options, depending on what resources are available for heat detection, drafting, AI etc.

Single PG involves mating to detected heat for 5 days, and then injecting all remaining heifers with Prostaglandin (PG). Most should respond within 5

days of injecting, and should be served to detected heat. (i.e. 10-11 days heat detection and spot mating before putting the bulls out).

Double PG involves 2 injections 11 days apart, with the 2nd injection 2 days before Planned Start of Mating (PSM). This offers fairly tight synchrony, and heifers should be mated to detected heat for 3 to 4 days before putting the bulls out.

CoSynch offers tight synchrony to allow fixed time insemination. Heifers are treated on 3 occasions:

Day -9: Insert CIDR & Inject GnRH

Day -2: Remove CIDR & Inject PG

Day 0: Inject GnRH & Inseminate

This is subtly different from the CIDRSynch programme for non-cycling cows, where cows are inseminated approx 16-20 hours after the final GnRH injection. The reason for this is that heifers ovulate faster than cows in response to PG, and the good news is that it involves one less yarding for these animals.

These programmes should only be considered on heifers that are well grown and showing good cycling activity. In the run-up to mating, attention should be paid to trace element status, parasite control and BVD status. 60% of predicted adult body weight should be the target for PSM.

PG Programmes- “Why Wait?” & Beyond

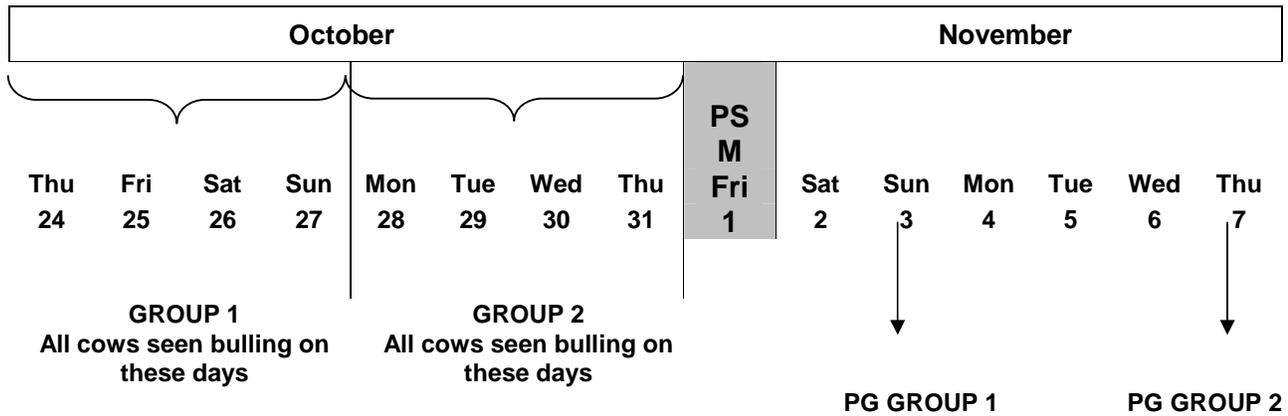
Prostaglandin (PG) can be used to short cycle a cow from seven days after she has cycled, allowing her to have a second chance approximately three days after PG injection. So, if we detect cows cycling on the days leading up to Planned Start of Mating (PSM) they can be brought back into line. This helps to get mating off to a flying start, is very simple to do, and has a great return on investment through extra days in milk.

The simplest PG programme we use is called “*Why Wait?*” and involves detecting, (and marking appropriately), all the cows that cycle in the seven days prior to PSM.

These cows are injected on the 7th day of mating. In effect this brings the 3rd week of mating forward to the start of the 2nd week.

We can use PG more efficiently by splitting these premature cyclers into two or more groups. An example of this is given below, but we can tailor programmes to your needs. If you are interested please discuss with a vet soon so we can get some dates organised.

PG Programmes for Cycling Cows



Ovary Scanning of Non-cycling Cows

By Jason Darwen

There are a number of different options for treatment of non-cycling cows, which include:

- blanket treatment with a CIDRSynch programme
- blanket treatment with OVSynch
- treat some cows (based on age, BCS, Days Since Calving etc) with CIDRSynch; leave the rest
- do nothing (they will usually cycle eventually!)
- run with bulls (or teaser bulls)

We know from our own experiences and from NZ trials that the CIDRSynch programme will consistently give the best results, and the best financial return. Blanket treatment of non-cycling cows with CIDRs can be done quickly, so avoids long sessions in the milking shed. For many of you, this may be the best option. We recommend Metrich checking these cows first.



Last year we introduced ovary scanning of non-cycling cows on a number of farms. This allowed us to view the structures present on the ovaries at that time, (see above) and make an appropriate

treatment decision for that cow. Although much more labour intensive, it will considerably reduce the number of CIDRs used, thus reducing the treatment costs. The initial results from last year are encouraging, and we are keen to promote this service again this year. There may be some logistical issues here, so that larger numbers (e.g. over 80 cows) may need to be scanned over a couple of sessions.

Non-cycling cows are best treated early for greatest cost benefit. However, you should also take into account your ability to feed these cows next year, particularly if you are also synchronising heifers and/or cycling cows! Please speak to your vet to discuss the different options and the best timing of treatment.

Salmonella in Adult Cattle

By Jason Darwen

Salmonella is the most common disease associated with acute diarrhoea in adult cattle. In New Zealand, most cases are due to Salmonella Typhimurium, which rarely causes abortion. Salmonella Brandenburg is a common disease of sheep in NZ, which can spread to cattle causing acute diarrhoea and abortions. Other types of Salmonella (e.g. Hindmarsh) are seen occasionally.

Salmonella is a serious zoonotic disease (i.e. humans can catch it from animals). Attention must be given to personal care and hygienic practices when dealing with infectious animals. Avoid drinking raw milk!

S. Typhimurium is not host specific and transmission may occur between cattle, or from other domestic species or wild animals. Spread can be directly animal-to-animal, or from contaminated feed or water. Animals/birds/people/equipment can also transfer infection between properties. The bacteria can persist for long periods of time in the environment e.g between 4 months and 2 years in contaminated rearing premises, pasture and soil.

Overcrowding, calving and sudden dietary changes can predispose adult cattle to Salmonella infection. Inductions and BVD infection may also predispose. *High levels of Magnesium supplementation* (or sudden increases) are likely to increase the risk of outbreaks in dairy herds.

Adult cows usually present as not eating; off their milk; raised temperature; profuse diarrhoea, often containing blood, mucus and gut lining (nasty!). Dehydration (sunken eyes) may be obvious. Veterinary involvement is recommended as early as possible to allow proper diagnosis, appropriate antibiotic choice (Bovipen and Tylo won't do any good!) and supportive therapy (fluids, anti-inflammatories). Affected animals should be isolated.

Our experience in South Otago has generally been of occasional cases in adult cows, with one or two cows affected on different properties around calving time. Vaccination has always been available, but has not been particularly high on the agenda. This year, we have experienced a severe outbreak of *S. Typhimurium* on one dairy farm, where approximately 30 cows were affected, including several deaths.

As a result of this, and other outbreaks around the country, **we now strongly recommend vaccination of all cattle with Salvexin-B.** Vaccination will not give 100% protection on its own, but may reduce the frequency and severity of the disease when used in combination with appropriate control measures. Cost is currently 85c per dose (incl gst).

Cows should be vaccinated twice (2ml dose, injected under the skin), 3 to 4 weeks apart. A booster is then given every 12 months. For colostral protection of newborn calves, pregnant cows should be vaccinated between 8 and 3 weeks prior to calving (single booster dose 3 weeks before calving, if previously vaccinated).

... and Calves

Calves should be fed colostrum from vaccinated cows for at least 5 days after birth. They can then be vaccinated from 8 weeks of age and boosted 3 to 4 weeks later. Control in calf houses is best achieved through good husbandry. Considerations include:

- Calf shed design – aim to minimise cross-infection
- Solid walls between pens (unfortunately, this is a rare sight in calf sheds!)
- All fittings, utensils & surfaces should lend themselves to effective cleaning & disinfection

- High standards of cleaning & disinfection between batches
- Remove old, dried faecal material from pen sides, floors, feeders etc prior to disinfecting
- All-in-all-out policy (with thorough cleaning & disinfection between batches)
- Adequate pen space (2m² per calf), with maximum of 10 calves per pen
- Clean, dry bedding
- Avoid draughts at calf height, but...
- Good ventilation above calf level
- Strict hygiene routine for buckets and teats
- Discourage visitors!
- Gumboots are best cleaned with water and a brush. Then spray with disinfectant (e.g. garden weed sprayer). Disinfectant footbaths for muddy boots are unlikely to achieve much.

Please speak to your vet if you want any further info about Salmonella in adult cattle or calves, or to discuss vaccination options. Extensive reference has been made here to "Diseases of Cattle in Australasia" (Parkinson, Vermunt & Malmo).

Theileria and Anaemia in Cattle

Theileria orientalis is a blood-borne parasite of cattle spread by ticks and causing anaemia. An increase in cases this year, mainly in the upper North Island, is likely to have been caused by an increase in the tick population, and the presence of a new strain of the parasite called Ikeda.

Cases have been seen as far South as Rangiora but we are not anticipating problems in South Otago, except possibly from transported stock. If you are receiving stock from affected areas we recommend quarantining for seven days and treating them for ticks.

Young calves and recently calved cows are most susceptible to the disease. Signs of anaemia include lethargy (e.g. struggling to walk to the milking shed); pale mucous membranes (e.g. vulva); increased respiratory and heart rate.

Other possible causes of anaemia include Copper toxicity; Phosphorous deficiency; SMCO toxicity (brassicac); Leptospirosis; and haemorrhage (blood loss).

Treatments may be available for affected cattle. A blood transfusion may also be required. Affected cattle should be handled/moved as little as possible, to minimise stress. High quality feed and plenty of water should be provided.

Further advice is available from dairynz.co.nz/theileria

Calf scours

By Lewis Sparrow

Over the last few weeks we have seen a few outbreaks of calf scours throughout the district with a whole range of different pathogens involved including salmonella, cryptosporidium and rotavirus.



The cause of death from infection with these organisms is from dehydration and metabolic acidosis as a result of the diarrhoea. Most of the time a good quality oral electrolyte will be adequate for restoring this dehydration, however in calves that are unable to stand, or are not very responsive, a more aggressive form of fluid therapy such as intravenous fluid is required.

Putting a calf on IV fluids provides rapid correction of dehydration and acidosis, and allows for a much faster recovery. Although this is not something that you are able to do yourself it is a relatively straightforward procedure for your vet to do and not at a huge expense.

So if you have an outbreak of scours with multiple calves becoming weak and unable to stand consider getting the vet out to put the calves on an IV drip to increase the chances of those calves recovering.



Photos: L. Sparrow

Johne's herd testing

By Lewis Sparrow

Johne's is a chronic wasting disease of cattle. The bacteria involved invades the lining of the intestines, causing the cow to be unable to absorb the protein and energy from the diet. As a result they rapidly lose weight, have a big drop in milk production, a very watery scour, and will die despite treatment with antibiotics.

This disease often goes undiagnosed on farm because these skinny scouring cows die without being seen by a vet and are just attributed to some other disease process.

Many cows will be infected with Johne's and not actually show any signs. The cases that we see on farm are only the tip of the iceberg and over time the subclinically infected animals will progress to developing clinical disease and death.



There is now a test available through the LIC herd testing scheme that allows for individual cow testing on the milk samples, allowing us to find many of these infected cows before they become sick.

If you are interested in finding out how many cows in your herd are infected with Johne's please contact us at the clinic and we can arrange for this testing to be done on your next LIC herd test.

BVD Bulk Milk Testing

Many of you have signed up with us for the LIC BVD testing package. Most of these will get underway this month and it should all be co-ordinated through the milk company and the lab so that none of us has to lift a finger. This package provides comprehensive testing, both for BVD Antibody (evidence of exposure) and Virus detection (evidence of PIs in the herd), and is good value for money compared to doing the individual tests through the lab.

The package includes two separate tests on bulk milk samples, taken two to three weeks apart, with the aim being to include all milking cows in at least one of the tests. To be sure that there are no PIs in your herd you should make a note of any cows that are not contributing to the bulk tank for any reason e.g. not yet calved, dried off, and arrange for these cows to be individually blood tested.

Other important BVD actions at this time of year are to:

1. Ensure all bulls are blood tested and vaccinated (2 shots of Bovilis BVD vaccine 3 - 4 weeks apart, or single booster dose if previously vaccinated).
2. Blood test 15 yearling heifers to assess exposure and immunity to BVD.
3. Complete vaccination of heifers and/or herd.

Please contact us now if you are interested in Bulk Milk Testing of your herd and haven't yet signed up for any testing.



Cow philosophy

This year Elspeth started a weekly email newsletter on calf rearing. This was aimed at our dairy clients and anyone else who reared calves. It included a photo competition sponsored by MSD Animal Health who contributed some lovely prizes. Congratulations to overall winner Julie Wendelgelst for this photo of her two healthy and content calves.



Photo: J Wendelgelst

Merchandise Matters

This month's list is as follows:

- **Merial Ancare Cattle Drenches** – Receive an LED headlight on qualifying products.
- **Eclipse E Injection** – Purchase 3 x 500ml packets and get the 4th packet free.
- **Eprinex Pour-on** – Buy 3 x 5lt and get another 5lt free.
- **Scanda, Alliance & Converge Sheep & Cattle Drenches** – Buy a 10lt drum of these and go in the draw to win a sleeveless vest.
- **Boss Cattle Injection** – A new combination injection of ivermectin, eprinomectin & levamisole for cattle from Alleva. Also effective against lice.
- **Dectomax Injection** – Receive a G Shock watch or Outback hat with every 2 starter packs.
- **Combat Topline Pour-on** – only \$418.21 nett incl. GST or \$2.34/500kg cow.
- **Meaty Bites Working Dog 20kg** – Currently on special at \$60.70 nett incl. GST (while stocks last).

GST – There seems to be an increasing trend amongst many of our competitors to quote prices ex GST. Please just be aware that **all our prices include GST**