Dairy Farmer Newsletter May 2010

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Around the Practice

Most farmers are feeling pretty positive about the 2009 / 2010 season. It got off to a flier with beautiful weather in August and September, which set the cows up really well for their lactation and mating. Although things never really warmed up til January, submission rates were good, and CIDR use was down.

The cold weather made feed a bit tight around Christmas, but the good rain in early January (just as the temperature started to rise) really kicked the grass off. Many people were left with more summer turnips than they knew what to do with – the silage pits reaped the rewards of all the extra grass, and milk production stayed well ahead of last season.

Now as the season draws to a close, farmers are looking to capitalise on the good payout. However with an eye to next season, getting the lighter end of the herd dried off, and preserving grass for Spring must be the highest priority.

Mastitis matters- Drying off

Dry cow therapy has the dual aims of curing subclinical mastitis infections (unnoticeable, high cell count cows) and preventing new mastitis infections through the dry period and around calving. While it is reasonable to consider the price and wisdom of such widespread antibiotic use, there is no doubt that dry cow antibiotics can do both of these jobs very well, and that there is a net positive economic payback from doing so.

In most cases, the questions around drying off include:

- Do all cows need to be treated?
- Do all cows require the same duration of treatment?
- Is the same antibiotic appropriate for all cows?
- What role does Teatseal have, with or without antibiotic treatment?
- How do you choose which cows to treat, or which products to use on each cow?
- What role does culling of high cell count cows have?

These questions can all be discussed with a vet, as part of a discussion of the broader issues around your year-round mastitis management, at your Milk Quality Review.

The key assumption, when a cow is culled because of high cell count, is that her replacement in the herd will be less of a mastitis risk than she was. Is this always the case?

If you are replacing her with someone else's cast offs, or with a lease cow, particularly without herd test data to support her, or a certainty of what dry cow therapy she had, you may in fact be bringing in a problem worse than the one you are trying to get rid of! Even a heifer replacement may be no better - they can have very high rates of clinical mastitis (with lifetime production effects for those animals) and are not immune to *Staph aureus* infections. Maybe culling is not the only solution!

So what should you do with those cows, who are in calf early, produce plenty of milk, haven't had a case of clinical mastitis, but have high cell counts on herd test? The ones you really want to keep, but know are likely to cause problems.

First, DCT is the best chance you have for curing their chronic, subclinical infection. The appropriate antibiotic may have up to 75% cure rate, even against *Staph*. Of course, having been infected already, there is a higher chance that they will pick up a new infection in the Spring, but there is help for that too (see below). Drying them off now, with good DCT, gives them their best chance.

Second, a recent economic model built by Scott McDougall from Morrinsville shows that treating them may be more cost effective (in the short term) than culling them. The assumptions include:

- culling a cow costs $500
- DCT costs $20 per cow (whole herd)
- 25% of cows are high ICSCC at drying off
- 35% of these high ICSCC cows are currently infected with mastitis bugs
- 50% cure rate of infected cows
- some uncured subclinicals convert into clinicals
- cost of clinical case $150
- cost of subclinical case $42
- overall, the likely mastitis related costs of a high ICSCC that is not culled, are $212.

Putting this together, the cost of culling four high ICSCC cows would be $2000. The cost of treating them would be $80, plus the mastitis costs associated with half of them not being cured ($424) gives a net cost of $504, ie a saving of $1496 on those cows!

There are, of course, things that the model does not take into account. For example it ignores: the increased risk of contagious mastitis bugs spreading through the herd **(for this reason it must be viewed purely as a short term strategy, as in the long term *not* culling is likely to have a high cost);** the chance of the replacement animal being a mastitis cow; the reduced fertility of older cows and the genetic improvement from young replacements; the increased risk of a BMSCC grade when the uncured cows do develop mastitis. But it is certainly food for thought!

Third, "combination therapy" using both dry cow antibiotic and Teatseal in each quarter offers these cows very good protection from developing new mastitis infections in the Spring. There is now plenty of trial work that validates this approach. In a New Zealand study using cows with cell counts *over* 150,000, cows receiving long-acting antibiotic alone had 15% mastitis through the dry period and around calving, while those that received the same antibiotic *and* Teatseal had only 8% mastitis in the same time frame

If using combination therapy to hold onto high cell count cows sounds like it might benefit you, make sure you talk about it with a vet during your MQR.

Getting cows InCalf

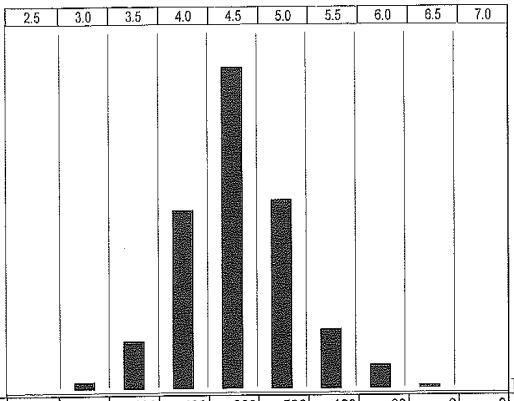
The reproductive performance of your herd has a huge effect on your farm's profitability, as well as giving you bragging rights at the local on a Friday night! It is therefore important to place high priority not just on getting cows in calf, but getting them in calf *early*. As the final round of pregnancy testing is completed you will be able to evaluate your herd's reproductive performance for the past mating period. While there have been some very good results this year, there have also been some less than satisfactory ones.

InCalf is a Dairy NZ initiative which aims to help you make incremental gains in your herd's reproductive performance over time. It concentrates on the eight main areas affecting reproduction. Gaps can then be measured between what your herd should be/is capable of achieving, and what it is actually achieving. Dollar values can then be placed on the *gap*, allowing you to make decisions in terms of how much money it is economical to spend to lift the herd to the desired level.

InCalf has been widely taken up across New Zealand, including farms within Clutha Vets area. Farmers can sign up for the process which involves four planning and reviewing sessions with their InCalf advisor each year. During these, goals are set for the coming period and then reviewed at the end of that period. There are currently four trained InCalf advisors at Clutha Vets. The Fertility Focus Report (FFR) along with regular herd body condition scoring (BCS) and heifer weighing are the main tools used to measure the level to which goals are being reached.

Cows need to reach critical body condition scores at different times of the year if good reproductive results at a herd level are to be reached. The InCalf process has put a monetary value on achieving these. In order to raise awareness amongst our clients, as well as giving farmers valuable information, Clutha Vets has body condition scored ten herds around Balclutha in February and March this year.

The results are as follows:



	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	Totals	
Number of cows	0	16	130	496	898	526	163	63	6	0	2298	(A)
Total CS	0	48	455	1984	4041	2630	897	378	39	0	10472	(B)
% of sample	0.0%	0.7%	5.7%	21.6%	39.1%	22.9%	7.1%	2.7%	0.3%	0.0%		
									Average CS =		4.6	(B/A)

Note:
InCalf (DairyNZ) recommends condition scoring at least 70 randomly selected cows to gain a representative sample of the herd. As part of the random selection the first and last 70 cows being milked are not to be scored. The cows condition scored are selected according to their bale position eg cows in every 2nd or 5th bale etc. depending on herd size. Cows scored in the paddock are a random group eg those with odd numbered tags. Condition scoring is performed using the system described in 'Condition Scoring Made Easy' DairyNZ.

The well-known aim is to have your cows at a BCS of 5.0 – 5.5 at calving and your heifers at a BCS of 5.5 at their first calving. Cows don't put on any condition in the last 4-6 weeks of pregnancy and spend the preceding 3-4 weeks transitioning onto crop, so they really need to be **dried off in the condition you want them to calve = BCS of 5.0 – 5.5.** (Cows wintered in sheds are a different story).

In order to achieve this, cows need to be at least a BCS of 4.5 now. The required gain of 0.5 BCS for the next 30 days through until dry off, is equivalent to about 10-15kg LW, ie a gain of about 0.5kg of LW/day. This will require 75-100kg extra DM equivalent (2.5-3kg DM/day), over and above the feeding required for maintenance, milk production and pregnancy. This is a big ask!

Any cows currently below BCS 4.5 should, at the very least, go onto once a day milking or, better still, be dried off. Otherwise they will not be able to achieve BCS 5 by calving. This includes those cows that "never put on weight" or are "always a bit light"!

If action is taken to ensure that all cows reach these targets now, then cows will calve in better condition. This will lead to cows cycling better during the next mating period, and thus better reproductive performance. In order to be ahead of the game in November, you should set your cows up **NOW.** If you would like to talk about InCalf or getting your herd independently conditioned scored, please contact anyone at Clutha Vets.

Inductions update

There is still no official word on the future of inductions as part of the routine management of New Zealand Dairy cows (the review of "The Induction Code").

Unofficially, a target of maximum 4% inductions per farm for Spring of 2012 has been suggested. To help get there, targets of 8% in 2011, and 15% this Spring have been suggested. All along, an ongoing, demonstrable effort to reduce the number of inductions has been a pre-requisite for doing inductions on any farm.

It is likely that all of the interested parties (Federated Farmers, Fonterra, MAF Animal Welfare, Agricultural and Veterinary Medicines Group, and NZ Dairy Cattle Vets Association) will agree to these measurable and enforceable targets.

In all cases, candidate cows will have to meet the criteria we have been operating on for a number of years – known stage of pregnancy; age of cow; cow BCS; ability to feed the cow adequately through late pregnancy, transition and early lactation; adequate supervision of the cow through this period; supplementation of magnesium; trace elements monitored and supplemented if required.

So for this Spring it will be business as usual, with a limit of 15% of any herd to be induced, as long as the conditions above are met. In subsequent years, the limit will be lower.

BVD – The PI as a "natural vaccinator"

We recently received a request from a farmer trying to get their hands on a BVD PI animal – one that is infected with the disease from birth and spends its (usually short) life excreting huge amounts of virus. The hope was, that by running it with last season's calves over the winter, they would be exposed to BVD and acquire natural immunity before the critical time of their first mating. At first glance it seems like a reasonable idea, but in fact it has some serious flaws and we cannot condone the practice!

First, there is the ethical debate about whether it is reasonable to willingly introduce a serious disease to healthy stock. Vaccines are dead, and usually produce few side effects. Giving the animals the disease itself is not innocuous, and will in some animals produce unjustifiable suffering.

Second, related to this, there may well be a growth check associated with the calves acquiring the disease and fighting it off. In a wet south Otago winter, up to their knees in mud, stressed and immune-compromised already, a dose of BVD may set their mating back just as much as getting the disease at mating time.

Third, we don't know how effective the PI will be in spreading the virus amongst its herd mates. In one recorded case 3 PI's running with 190 calves for 300 days managed to expose only 81% of their herd mates. In another case 23 PI's running in a mob of 194 for 600 days also exposed only 81% of the others. There are cases where exposure has been much more complete than this, but it is by no means reliable!

Fourth, we don't know the effectiveness of exposure to the virus in generating a protective immune response. We don't know whether it will produce enough antibody, over what timeframe it will be produced, how long it will last, and whether it will be effective against all strains of the disease.

Fifth, when the PI dies (particularly if part way through the winter) where are you left, in terms of protection of the other calves?

Having a PI in the milking herd has been calculated to cost $35 per animal ($17,500 in a 500 cow herd) in terms of lost milk production and decreased reproductive performance.

All-in-all, PI's are bad news. They should be identified, and destroyed. You can't make a silk purse out of a pig's ear!

There is an excellent, reliable, safe, proven and cost effective BVD vaccine available. If you are concerned about BVD in your stock, please speak to a vet about a vaccination protocol that will meet your requirements.

Preparing the farm for Spring

As we approach drying off, it is useful to roll your minds forward and try to picture what situation you would like your farm and your stock to be in at calving time next Spring.

As regards the farm, decide now which paddocks will be suitable for the springers, and don't graze them again before drying off. Monitor average cover carefully, and always allow enough cover at drying off to allow establishment of the cows in spring. If you are planning to put your springers into 2500 cover in early August, and you bargain on growth of 12kg DM per ha per day over May, and 8kg in June and July, that's just 600kg growth through the Winter. That means your intended Springer paddocks need to have 1900 cover now. Do they?

When did you last prepare a feed wedge for the farm? Don't be scared if your wedge has a "step" in it, or if it looks like your grazing plan between now and drying off may create a step. Your calving and milking paddocks for the first few weeks need to have plenty of feed. If you need to graze the paddocks for later in the first round of spring pretty hard now, that's ok. Those shorter grazed paddocks will have more time to recover, and will recover more quickly than paddocks left with longer grass. This is because light and warmth will penetrate the sward better, and with careful planning you can also use the more-freely draining and faster growing paddocks, possibly spurred on by some strategic nitrogen use. The wedge will rapidly sort itself out in spring.

Some other considerations for springer paddocks here:

- suitable for regrassing after grazing (older pasture)
- free of effluent
- have not had potassium applied
- have not had lime applied
- free draining
- easy to move calved cows out of
- close to the cow shed for cows that need assistance calving
- close to cow shed for ease of twice-a-day calf removal and twice-a-day bringing in of freshly calved cows (vital for mastitis control)

As regards the cows:

- Catch up with your grazier and inspect winter crops and feed, to check that the situation is what you expect, and suitable to do the job.
- If you have not already done this, plan your udder health for the coming spring through your Milk Quality Review.
- Monitor trace elements now by liver sampling or biopsy, so that action can be taken now to correct deficiency well before calving.
- Dry off any cows below condition score 4.5 now, so that all feed is partitioned to weight gain.
- Consider worm drench for lighter / younger cows.
- Reduce feed carefully and in a measured way, so that drying off is not too harsh.
- Dry cows off 7-10 days before going to grazing so that they are not under stress when trucked with full udders.
- Plan your holiday!!

Some people are considering dropping milking frequency to preserve grass and/or cow condition. Look carefully at your herd first. It is probably more appropriate to dry light cows off completely, and keep milking heavier cows twice a day, particularly if your BMSCC is creeping up. This approach also allows you more flexibility with deciding on your final drying-off date, and breaks the back of the big job on drying-off day.

Drying off, or when you run the cows back through the shed a minimum of two weeks after drying-off (to inspect the udders), is the best time to split your cows into their wintering and calving mobs. You can then really target the feeding and the return of the cows to the home farm for calving in an appropriate way. Sensible wintering mobs might be:

- early calving light cows.
- early calving heavy cows
- later calving light cows
- later calving heavy cows
- potential induction cows
- first calving heifers

Ideally, mob size should not exceed 120 cows. Any larger than this and it is harder to ensure that every animal gets adequate access to all feed. Also, with larger mobs, it becomes difficult to inspect and monitor individual animals.

Brief reminders

How many "surprise" empty cows did you have at the end of Spring? How much did it cost to winter them? We offer a very competitive rate to re-pregnancy test any herds at drying off that we tested the first time round. We only need to find 1-2% empties to make this worth while. Give us a call!

Need help with drying off? We can discuss the ins-and-outs of different techniques at your Milk Quality Review, but if you want the job done right, by people who care about doing it right, our Techs are ready to help. Speak to Ainslie, Joanna or Louise.

Are all your animals now lepto vaccinated? If we have done your vaccinating we will have records and can provide certificates as required. If you are part of the Leptosure programme, please return your completed records to us ASAP.

Thinking of drenching cows for worms at drying off? If they are going onto crop a large part of the persistent activity of the drench will not be utilised, because there will be no in-coming worm challenge. You may get more out of drenching them now. Unsure of the benefit? A **"B-Sure" bulk milk test** can estimate the worm burden your cows are carrying, and help work out the economic benefit of drenching them. Organise this through either clinic.

Cull cows "a bit light"? Cows under BCS 3 are not fit for transport, and will probably be condemned at the works. The significant number of emaciated cows turning up at the works at this time of year is a really bad look for the dairy industry, especially in the light of the Crafar Farms debacle.

Every line of animals sent for slaughter can provide an insight into the welfare and husbandry practices of the farm from which they came. A number of emaciated animals arriving at the works may indicate a greater welfare issue on that farm, and is likely to prompt further investigation into the farming practices on the farm, and the animal welfare issues that those practices are creating.
Having given you the flesh off their backs over a lifetime of milking, do you really need to squeeze another $200 out of them? There must be an acceptable balance between maximising production returns and maintaining acceptable animal health and welfare. At the very least, dispose of these animals humanely, on farm.

Wanting to dock calves tails? Leaving those "poo-balls" stuck to the tail, to cut off circulation and act as a natural rubber ring is unacceptable. It is a source of infection that can spread up the tail to the spine, and is also undoubtedly unpleasant and painful.

Uncertain of the need for trace element supplementation of cattle going into winter? Now is the time for us to liver biopsy a few of the herd, or get samples taken from representative culls at the works. There's nothing like information when it comes to making a sensible decision!

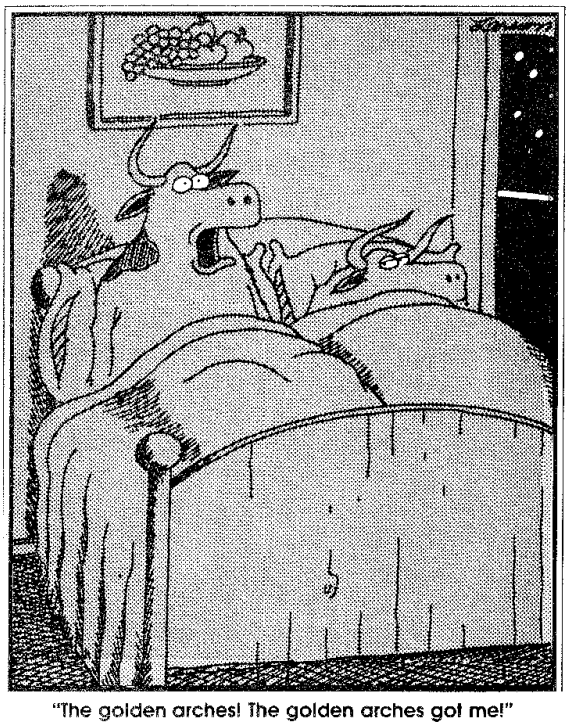
Retail specials – Phone direct 418 1281

***Dectomax* –** Purchase two injection starter packs (to treat about 220 cows), or one pour-on herd pack and receive 20kg Eukanuba premium dog food (value $125).

***Cydectin Pour-on* –** either a 17ltr pack for the price of 15ltr, or buy 15ltr and get an air tool kit or Vacuum Foodsaver.

***Eclipse and Genesis Pour-on* –** Various PowerBuilt tools are available on purchases of at least 2.5ltr. Or, get an extra ½ ltr of drench instead of the tools (with the 5ltr pack).

***Multi-Min Injection* -** (copper, selenium, zinc, manganese and chromium). Use this season, and be in to win a Digitech Professional Wireless Weather Station.



"The golden arches! The golden arches got me!"