Heifer Performance

Managing your replacement heifers well from birth to 2 years of age is one of the most critical things you will do on your farm. These animals (your most valuable animals genetically) have to grow, reach puberty, get in calf and enter the milking herd in good enough nick so that they don't end up 2 years later (or sooner) as skinny empty failures bound for the hamburger box and costing you heaps in the process. Heifer wastage is a preventable tragedy. Most of you know this, but are your heifers high enough up your priority list? I haven't got anything new to tell you here; just to encourage you to monitor



your heifers closely, and act early if change is needed. Don't rely just on your grazier, or assume if they've had a growth check because of disease or feed shortage that "they've got plenty of time to catch up." They haven't...

Consider a herd that starts calving on 1st August, and a heifer replacement is born on that day. For that replacement to calve 2 years later on 1st August, she would need to conceive on 23 October at age 14 months and 23 days.

But what about the replacement calf that you keep 4 or even 6 weeks later? She needs to conceive 4 to 6 weeks earlier – when she is 13 months old – if she is to calve on 1^{st} August.

Then consider that most of you want to calve your heifers earlier than the adult herd – you are asking your heifers to get in calf a week or two younger again.

The issue here is the onset of puberty – a heifer that is not cycling won't get in calf. According to our reproduction textbook, onset of first oestrus (heat) in cattle ranges from 7 - 18 months, with the average about 10 months. Plenty of time to get in calf at 13 - 15 months old?? Should be, but there are two things to note here:

- As above the less compact your calving, the more late heifer calves you have to keep. These animals have less time to grow and reach puberty.
- We palpate the ovaries of plenty of empty heifers at scanning, and more than a few of them feel anoestrus in other words, these heifers haven't reached puberty yet. Why not? To quote the textbook again: "poor feeding and calfhood disease delay the onset of puberty." In other words, they delay growth.

The issue in both these cases is bodyweight – if they haven't reached target weights, they won't cycle and/or they get in calf late.

This matters:

Smaller heifers means later breeding – means later calving at lower weights - means more non cyclers, less milk – costing you money in production loss, more late cows and more culls.

Better grown heifers cycle earlier so conceive earlier and calve earlier. This gives them more time as 2 year olds to get back on heat. If you've done it right and they've calved not only early but also in good condition, they'll cycle better as well. One NZ trial found that heifers in body condition score of 4.5 after calving took on average 77 days to return to heat, while those in BCS 6.5 took only 51 days. You're looking at lower Cidr costs, a tighter calving, fewer empties and more in milk days. And it all begins with heifer management from 0 - 2 years old.

With that in mind look out for a talk from internationally renowned kiwi vet and nutritionist Sue Macky next autumn. Her talk will be titled "Growing great heifers; from birth to calving". You won't want to miss it. Details will follow in the New Year.

Drenching Lambs for Tapeworm shown to be Beneficial

Recent trial work by Totally Vets (Manawatu), funded by Beef & Lamb NZ through the Farmer Initiated Technology Transfer programme (FITT), has shown beneficial results of drenching lambs for tapeworm. There have been many theories and opinions over the years on the significance of tapeworms and whether it is justified to drench.

These results showed what was already known i.e. that treating lambs with an effective roundworm drench gave significant weight gains compared to untreated controls. But it also demonstrated that additionally treating for tapeworm using a product such as Matrix Tape Hi-Mineral gave an even greater weight gain. An added benefit was the reduction in dag scores which eased crutching and fly pressure.

These results are still being written up so expect to hear more and in much greater detail in months to come. Lindsay



Drench Testing

We conducted drench tests a few years ago highlighting some resistance issues. Following farmer requests we intend to conduct drench tests this coming autumn. More details will follow.

In the meantime please register interest with John.

Little Johnny

One day, Little Johnny's dad asked him if he knew about the birds and the bees.

"I don't want to know!" Johnny said, bursting into tears. Confused, the father asked what was wrong.

"Oh Dad," Johnny sobbed: "At age 6, I got the 'there's no Santa' speech. At age 7, I got the 'there's no Easter bunny' speech. Then, at age 8, you hit me with the 'there's no tooth fairy' speech!

If you're going to tell me now that grown-ups don't really have sex, I've got nothing left to live for!"

Covexin 10 may be the answer to reducing the number of unexplained deaths on your farm

Sporadic deaths of cattle are common. Finding a valuable replacement heifer dead in a paddock is disheartening but often just prompts the statement "oh well... where there's livestock there's dead stock" and then things move on. However many of these deaths can be prevented, avoiding significant losses.

What is 'Sudden Death Syndrome'?

Sudden death syndrome describes deaths that occur due to toxins released by clostridial bacteria growing in the gut. This is often seen in fast growing animals on high quality pasture, but can be seen at any time. Another risk is heifers consuming dirt or mud while grazing (clostridia form their spores in the soil). These deaths have been reported even in animals that

have been vaccinated. The reason for this is that there are clostridial organisms present in New Zealand associated with Sudden Death that are not covered by "traditional" 5 in 1 vaccines (notably *Clostridium sordellii* and *C. perfringens* Type A).

What can I do about it?

Vaccinate with Covexin 10 which provides protection for the 10 most relevant key clostridial pathogens. The vaccine protects against organisms that cause the "traditional" clostridial diseases such as pulpy kidney, tetanus and blackleg as well as a further five clostridial organisms.

When should I vaccinate?

A sensitiser and booster shot is required for calves, followed with an annual booster.

As Covexin 10 can be given any time from 2 weeks of age, an ideal time to start the programme is when debudding calves at 4-6 weeks. A booster can be given 4 to 6 weeks later. A booster shot a year later will provide protection through to calving.

If you're proud of your stock, only the best protection will do.

That's why we use this vaccine for our traditional "Blackleg" vaccinations.

Putting Worm Drench in the Milk is a "No No"

The latest Dairy Cattle Vet newsletter had a very interesting article in it on drench toxicity in calves, in particular Abamectin in calves still on milk.

As luck would have it just the other day I had people in wanting to put worm drench into the calfeteria for their calves that had just gone outside. I talked them out of it for a number of reasons:

- 1. What is the likelihood that calves that are still on milk even have worms? In my opinion, very unlikely so they are probably loose for an entirely different reason such as change of diet (you have just put them onto pasture after all)
- 2. There is evidence that both worm establishment and the effects of worms are much less in animals on a milk diet (so even if they were exposed to worms they are less likely to be affected while still on milk)
- 3. The risk of poisoning. Oral drenches are designed to go into the rumen. In a calf still on milk, rumen bypass is going to occur due to stimulation of the oesophageal groove reflex and drench will go into the abomasum where it will be absorbed too rapidly possibly leading to toxicity.

The article I read described 3 or 4 cases of poisoning of calves due to either:

- 1. Addition of worm drench to the milk via the calfeteria
- 2. Over dosage due to large variation of sizes in a mob when young. Abamectin and Levamisole drenches have relatively narrow safety margins with regard to dose so if you drench to the heaviest calf in a very young mob you are quite likely to overdose the youngest, smallest animals. Better to separate into different mobs based on size and age then drench accordingly
- 3. Putting pour-on into a different container and then drenching it orally by mistake. Don't laugh, it's happened here.

We offer a calf drenching service in conjunction with vaccinations. Before Xmas we use Dectomax injectable because it has a much wider safety margin than Abamectin pour-ons (either on their own or in combination) and then after New Year we switch to a combination pour-on (in our case, Eclipse) to slow the development of resistance and so on. By then they are fully weaned, are bigger and better able to handle it.

The recommendations that arise from these reported toxicity episodes are:

- 1. Never drench calves at the calfeteria or mix with milk. Most oral drenches require slow absorption from the rumen for effectiveness adding to milk prevents this happening. Plus calves on milk probably don't need worm drenching to begin with.
- 2. Never drench calves that are under 120 kgs or 4 months old with drenches containing Abamectin.
- 3. Never swap containers. If decanting to a smaller drenching container always write on that container or transfer back to the original container when finished. Double check that the correct product is being used.
- 4. Always check that the drench gun is delivering the correct dose. Weigh enough animals to get an accurate weight so you give the recommended dose.

