DAIRY TALK

PROVIDING VET CARE 24/7

OCTOBER 2015 | NEWSLETTER

anexa FVC
animal health & vet services

TOP TIP:

Book a place at our practical workshop on how to safely treat lame cows. Group sizes will be small to ensure all who attend receive hands on experience with lots of practical tips. See page 4 for details.

Articles:

Treating clinical mastitis in mid to late lactation.

Monitoring Submission Rates

Leptospirosis update

Monitoring young stock's performance makes a huge difference to their progress.

Reduce losses associated with poor milk quality

Lameness training workshop

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Treating clinical mastitis in mid to late lactation

By Dr Scott McDougall, Cognosco

As lactation progresses, the type of bacteria associated with clinical mastitis changes on many dairy farms. Commonly, in the first month or so after calving, *Streptococcus uberis* is the most common bacteria isolated from clinical cases. However, later in lactation, *Staphylococcus aureus* becomes the most common bacteria in many herds.

Staph aureus can occur as either subclinical (i.e. high somatic cell count and/or rapid mastitis test score cases without clinical signs) or as clinical mastitis. It is more common in older cows, and in those with chronic infections (i.e. that have had a high somatic cell count at multiple herd tests).

Staphyaureus is a "cow parasite" bacteria that is spread during the milking process via liners and hands. Hence, the most important control measures are to minimise cow to cow spread by ensuring that infected cows are identified and milked last and by ensuring that teat spraying occurs at every milking using an effective teat spray applied properly.

Staph aureus is difficult to cure. Research studies in New Zealand and overseas find that the cure rate for staph cases is somewhere between 10% and 30% where "conventional" duration of therapy is used. Cure rates are lower in older cows, chronically infected animals, cows with multiple glands infected with *Staph aureus*, where teat end damage is present, and where the isolate is resistant to penicillin. Studies here in New Zealand have found that about a third of the *Staph aureus* isolates are resistant to penicillin and require the use of different antibiotics. The only way that resistance can be determined is by laboratory testing. However, a clue that resistance may be present is that a higher proportion than normal of clinical cases that are treated become clinical again within a month of initial treatment (i.e. if more than 15% to 20% of cows recur this should be checked).

Increased bacteriological cure can be achieved by using longer duration of therapy with the appropriate antibiotic. However, the cost-benefit of doing so may become marginal due to milk discard costs.

In some cases creating three-titter cows and/or culling the animal is the optimal decision. Particularly late in lactation, early dry off and the use of dry cow antimicrobials may be the best option. The longer the antimicrobial is above the minimum inhibitory concentration during the dry period (relative to during lactation), the higher the bacteriological cure rates .

Cognosco is shortly commencing a study to assess three different treatments for clinical *Staph aureus* cases. This study will involve collection of milk samples before treatment for bacteriological culture and then re-sampling of those glands from which *Staph aureus* was grown prior to treatment.

Monitoring Submission Rates

By Katrina Roberts, Herd+Plus Veterinarian

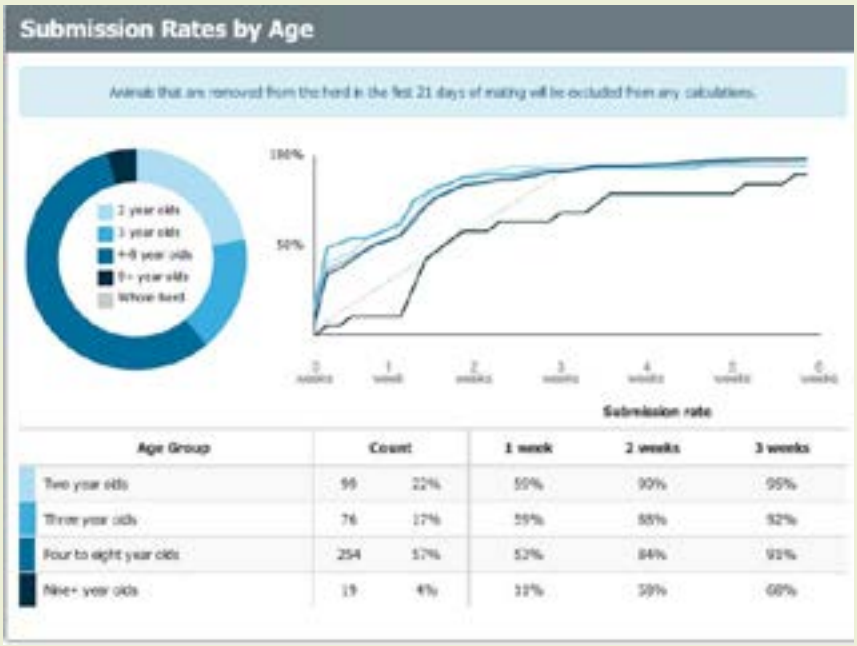
"I'm putting one less cow up a day during AB, but that's okay isn't it?"

Let's do the sums.

We all know that the target 3 week submission rate is 90%. In order to achieve target 3 and 6 week in-calf rates, (54% and 78%, respectively), this submission rate is not negotiable. Herds that achieve these in-calf targets are **all** achieving a 3 week submission rate of 90%. That said, the national average 3 week submission rate is only 80%, which means 75% of herds are not achieving the 90% target.

To achieve a 90% 3 week submission rate, we need to submit 4.3% of the herd every day for the 21 days. For a 300 cow herd, that equals 13 cows per day. If we only submit 12 cows per day over this period, then by the end of week 3 we have only hit 84%, which is NOT good enough.

Trying to monitor this on a daily basis is more difficult, as we won't get even numbers every day. We also have factors such as CIDRs and synchrony programmes that will also upset the daily pattern. There are some useful tools available on Minda Web and on the Minda mating Apps to help monitor your daily submission rate. The graph below, which is updated daily, can easily demonstrate if you are dropping below the target line. The herd below used CIDRs on day one for non-cyclers and used a prostaglandin synchrony programme in the cycling cows as well, which is the second big jump in the second week, and then things flatten off in week 3.



If you do not use the graph to monitor your performance, you can do a quick calculation: Number of cows to be mated minus the number of cows CIDR'd multiplied by 90% and divided by 21 days. This will be the number of cows daily (e.g. 300 cows – 30 CIDRs = 270 cows * 90% = 244 cows/21days = 11.6/day. So if 30 CIDRs are used in a 300 cow herd at the beginning or before PSM, then we need 12 cows daily not the original 13.

Next month we will go through interpreting your non-return rates.

Leptospirosis Update

Leptospirosis is a **zoonotic** disease. This means it can be passed from animals to humans, which is why we need to control the disease to prevent people from getting sick, in addition to preventing disease/abortion in cattle.

The latest information from Massey University points to a change in the ecology and risk pattern of infection. People in contact with animals, including farmers and veterinarians, are increasingly at risk.

Study results indicate that calves may become infected with Leptospirosis before they are vaccinated, meaning they can become 'shedders' of Leptospires in their urine, despite being vaccinated. Therefore, vaccination after natural exposure to the disease may compromise vaccine efficacy as vaccination only provides stable immunity in unexposed animals. In a pilot study, shedding was seen in 30% (13/44) of dairy herds studied and 13% (18/134) of animals within positive herds. The true percentage of herds harbouring shedders may be even higher, regardless of the herd's history of vaccination, because animals may have been misclassified as being non-shedders when in fact they were. The age at which first vaccination was given was the only significant factor associated with the probability of shedding.

There has been much discussion over the role of 'maternally derived antibodies' (MDA) in vaccination efficacy. It has been hypothesised that MDA, which are transferred to the newborn calf via colostrum, may interfere with vaccination. Unfortunately, there is a lack of good data around this relationship, but it is now accepted that most calves have lost immunity via MDA to leptospirosis infection by 4-6 weeks of age.

Latest vaccination recommendations:

Assuming regression of MDA by 4-6 weeks of age and that the age spread of young stock to be used for replacement is 6 weeks (based on a typical AI period), then:

The earliest recommended time to start vaccination is at 10 weeks after the planned start of calving (PSC), so that the average age of the calf mob at vaccination is 7 weeks.

The latest recommended time to start vaccination is at 18 weeks after PSC, so that the Leptospirosis vaccination course can be completed before the oldest animal is 6 months old.

Depending on the other vaccinations you use on your calves (for example BVD and Salmonella), your vet will need to draw up a protocol tailored to your farm. To reduce the risk of Leptospirosis becoming a problem on your farm, earlier vaccination is definitely recommended.

Monitoring young stock performance makes a huge difference to their progress

By Mike Shallcrass, Anexa Gordonton Veterinarian

All too often we hear that farmers aren't happy with their heifers when they come back from grazing, and they solve the problem by changing to a new grazier. The next year the same thing happens and the cycle repeats.

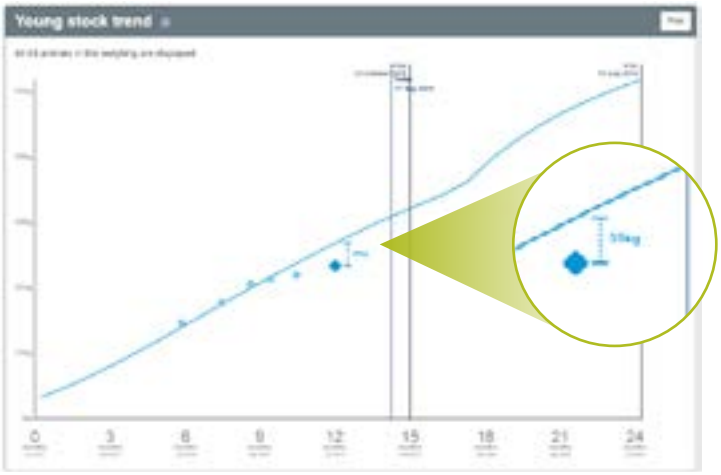
Calves are the future of your herd and any setback to their development can have serious repercussions to their health and production once they come into the milking herd. Spending just a few hours a month monitoring your young stock's performance can make a huge difference to their progress and set them up nicely to come into the herd.

Many graziers have started weighing stock and sending those weights through to the stock's owner. This is a great start, but what should you do with those weights and what do they mean?

An average cross-bred heifer should weigh around 150 kg at 6 months of age and 300 kg at 15 months. These are minimum targets and ideally all your stock should be exceeding them.

The new minda.co.nz website has powerful tools to monitor the weight of your young stock and compare their weight against their own individual BW values. It also automatically generates lists of stock that need help to meet targets and how far behind they are.

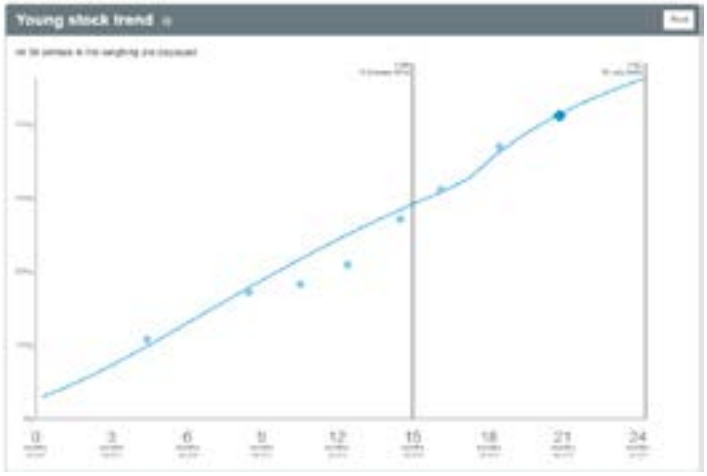
You can see from this graph that while these animals were initially meeting targets they have fallen far behind and at their last weighing were an average of 35 kg below target.



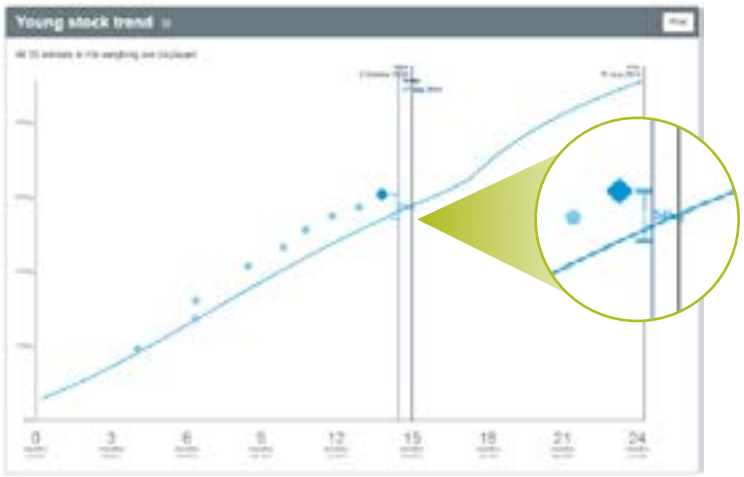
This could have repercussions on when they start puberty and, therefore, when they get in calf.

Anexa FVC offers a tailored management program for your young stock, so that you know when vaccinations and drenching are due, and what animals should weigh at a particular time. If required, we can administer treatments and weigh stock and report back to you on their condition. You then have peace of mind knowing the animal health treatments are up to date and improves overall communication about whether animals are meeting targets, or not.

The graph below shows a mob of animals that were failing to meet targets, however because the farmer was aware of this, he/she was able to work with the grazier to bring them back to target weights in time for mating.



This next graph is from a farmer who has been using our Young Stock Monitoring program for the past two seasons. Both he and the grazier have become more engaged with the management and improvement of the calves' performance, and this has been reflected in their outstanding growth rate performance.



These animals are all well above target - it is going to be interesting to see how they perform once they come into the herd next season.

If your grazier is already sending you weights, we recommend you enter them into MINDA, so that you can objectively assess how things are going. If your grazier isn't weighing your calves, ask them why not; it may be that no-one has asked them to before. If they don't have the facilities, then we can take out portable scales and weigh them for you.

Poorly grown heifers are less likely to get in calf, have lower production, and are more likely to be culled than animals that are well grown. By the time these animals come back to the farm it is too late to do anything about it. Accurate, regular monitoring and early intervention are needed to ensure your animals reach their potential.

Call your Anexa FVC clinic today to discuss the young stock monitoring options that we can offer you.

Reduce losses associated with poor milk quality

By Mike Denholm, Anexa Rototuna and Herd+Plus Veterinarian

Anexa FVC can provide the tools and services to help you manage milk quality in a smarter way, aiming to reduce the losses associated with poor milk quality.

In general, to cut farm working expenses (FWE) this spring, many farmers are trying to reduce bought-in feed costs. This may be through altering feed type (high energy/protein feeds replaced with biproducts) or by simply cutting the overall dry matter bought-in. A well-managed farm will off-set a reduction in available feed by reducing the feed demand on the farm. This is usually achieved by dropping stocking rate and/or adopting once a day milking (OAD).

Questions you should ask yourself are:

- Are you culling the right cows?
- Is your herd OAD ready?

How can Anexa FVC vets help?

If reducing stocking rate is a priority, are you culling the right cows?

For example, do you select cows in the herd that have the most black marks, such as high cell count, clinical mastitis, age or a late calving date?

Alternatively, low production cows may be a culling priority. However, in prioritising low production cows, you may overlook mid-range production cows with a repeatedly high (over 150,000) cell count. The mid-range production, high cell count cows may be having a worse effect on your bulk tank somatic cell count (BTSCC) and may be a source of contagious infection for other cows in the herd.

Anexa FVC vets can assist you in generating culling guide lists that factor in your priorities and rank the cows based on highest offenders to the lowest.

Proactive farmers are also factoring in milk culture results into culling decisions. We can milk sample 'problem' (i.e. high cell count) cows using herd test results. From here, we can identify the type of bacteria each cow is harbouring. Our main concern is often *Staph aureus* - a contagious bacteria that is difficult to cure. Culling these cows has a big impact on controlling BTSCC through the season. Culturing is not as expensive as it sounds. Bulk testing 20 milk samples, will cost approximately $10 + GST per sample in the Anexa FVC in-house lab. For small numbers (<10 samples), it is generally more expensive per test as they are sent to the commercial lab in Hamilton.

When a herd goes on OAD, the BTSCC will usually double during the transition before settling down over the following 10-14 days. You can expect the bulk tank cell count to run at around 20% higher than it did prior to going OAD. Clinical cases may also flare up during this process. Identifying 'problem' cows early in the season is a good place to start before you consider OAD milking. If you are herd testing, identifying these cows is a simple process. If not, then identifying these cows can be tricky. Our technicians can strip the herd at milking time to identify high cell count cows if required.

Most farms will have a herd test around November/December. This is a prime time to get on top of high cell count cows prior to summer, especially if you are planning OAD.

In general, it is a far smoother process if the transition onto OAD milking happens while there is still feed ahead of the cows. We commonly see herds transition onto OAD 3-4 weeks too late, by which stage feed quantity and quality has declined. If done early enough, the cows are less likely to drop in production as dramatically, which should have less effect on BTSCC. Feed shortages can lead to excess stress on the cows and may compromise the immunity of the cows making them more susceptible to diseases like mastitis and Theileria.

Economic models prove that blanket treatment of high cell count cows is not recommended. Selective treatment based on culture results is the smarter and more economical way forward for repeat offender, high cell count cows.

Lameness Workshop

IT PAYS TO BELONG anexa FVC

Book a place at our practical workshop regarding how to safely treat lame cows. Group sizes will be small to ensure all who attend receive hands on experience with lots of practical tips. You can be confident if your staff come along to this training day, they will be prepared for the prevention and treatment of lame cows!

- **Thursday, 15th October,** 11-2pm (lunch provided) 118 Ballard Rd, Gordonton DN 72664
- **Thursday 29th October** 11-2pm (lunch provided) Ngatea area

Cost: It Pays to Belong special $45 for Members, Non Member Clients $95, Non clients $150

To register your interest email anexa.events@anexafvc.co.nz

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Book at your local Anexa FVC clinic

Support is available

Rural Support Waikato-Hauraki Coromandel

Free and confidential help is available through the trusts' coordinator.

0800 787 254 | www.rural-support.org.nz

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Gordonton P: 07 824 2103	**Maramarua** P: 09 232 5891	**Morrinsville** P: 07 889 5159	**Ngatea** P: 07 867 7256	**Raglan** P: 07 825 8390	**Te Aroha** P: 07 884 8014	**Thames** P: 07 868 7005