



VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

MAY 2014

Totally Vets Fishing Tournament

Barry Askin

After weeks of fantastic weather unfortunately the 10th annual TVL fishing tournament was cancelled because of poor conditions and a worsening forecast. Of the several boats that did still go out, some came back after a short time agreeing with our call to cancel, while others stuck it out and came back with a feed!

The crews all met at the Murrays Irish Bar in Feilding for a BBQ, to swap stories and for the prize giving where all awards were drawn as spot prizes. Despite the lack of fishing a good afternoon was had by all. Most of the fishermen and women had leave passes for the day so these were put to good use!

A huge thank you to all of our sponsors whose generosity makes this event possible and to all those who have taken part in this event over the last ten years.

Responsible Use of Antibiotics

Chris Carter

In December 2013, the Ministry for Primary Industries (MPI) released a report on the use of antibiotics in both agriculture and horticulture. MPI's interest in this topic mirrors the community's growing knowledge on anti-microbial resistance (AMR) and our ability to successfully treat bacterial infection in humans.

The good news in MPI's summary of sales is that for the 2009-2011 period antibiotic sales in these two sectors decreased 19%. For production animals, the decrease mainly occurred within the poultry and pig industries.

Antibiotic use on NZ dairy farms is about a third of that being reported for northern hemisphere farms. A published study from a large Waikato veterinary practice indicates antibiotic use in dairy herds remains static. The dairy sector's greatest use of antibiotics is for the treatment of mastitis. Any improvements of disease control efforts and prescription practices for this condition will likely have the greatest impact of overall antibiotic use within the NZ dairy industry.



For anti-microbial resistance in animals to be a risk, pathways for the transfer to humans must exist. It is our exposure to raw food which is considered the most likely route for the general public as well as close animal contact. The dairy sector has strict controls to regulate the quality of raw milk and pasteurisation mitigates the transfer of resistant organisms to humans through the consumption of dairy products.

The oral application of anti-microbials and to a lesser extent their systemic use (by injection) are considered the greatest hazard for the development of resistance and transfer of AMR. It is for these reasons in the livestock sector that our vets are required to have informed knowledge of the farm when prescribing and that products, when left on farm, are used as prescribed.

In a further edition of VetNotes we will look at the different classes of antibiotics and AMR.



Totally Vets current stock health

Dairy

With dry summer conditions and declining production, many farms have started to dry cows off. Cows that calve in low body condition are more susceptible to illness, don't produce well and are harder to get back in calf. It is often hard to see changes in animals we see every day, so now is a wise time to get your vet to independently body condition score your

herd to offer support in making sound drying off decisions.

Many people plan to supplement trace minerals around drying off. Deficiencies are common as are copper and selenium toxicity issues (which are on the rise primarily due to increased feeding of palm kernel). Monitoring of liver and blood samples would be prudent prior to supplementation.

HA HA An oldie but a goodie!

A man rushes his limp dog to the vet. Sadly the vet pronounces the dog dead. The agitated man demands a second opinion.

The vet goes into the back room and comes out with a cat. The cat sniffs the body and meows. The vet says "I'm sorry but the cat thinks that your dog is dead too". The man is still unwilling to accept that his dog is dead.

The vet brings in a black Labrador. The lab sniffs the body and barks. The vet says "I'm sorry but the Lab thinks your dog is dead too".

The man finally resigns to the diagnosis and asks how much he owes. The vet answers "\$650".

"\$650 to tell me my dog is dead!?" exclaims the man. "Well" the vet replies "I would only have charged you \$50 for my initial diagnosis. The additional \$600 is for the cat scan and lab tests".

Teatsealing in Heifers

Are you looking after the class of 2014?

Greg Smith

The mastitis rate in heifers at calving is a problem in many herds with rates of around 20-30% not unusual. The cost of a case of heifer mastitis is \$200-\$300 and there are also production losses that extend well beyond the first lactation. Since Teatseal® was first identified in 2003 as a credible means of preventing heifer mastitis, trials have demonstrated a 70% plus reduction in clinical mastitis (CM).

WHAT LEVEL OF HEIFER MASTITIS IS TOO HIGH?

SmartSAMM recommends that if mastitis in heifers exceeds 15% then action is required, but many will justifiably be concerned at levels even lower than this.

ARE THERE MANAGEMENT ACTIONS THAT CAN REDUCE HEIFER MASTITIS?

Yes, reducing the interval between calving and the first milking reduces mastitis. Twice daily removal of freshly calved heifers from

the springer mob and immediate milking reduced CM by 45% compared to once daily removal and first milking in the afternoon only. Reducing the amount of dirt and manure contaminating the udder reduces mastitis and hence increasing the grazing area following rain is beneficial. The reverse is also true so, for example, exposing pre-calving heifers to feed pads increases the risk of mastitis.

Strategies that are likely to help include:

- Maintaining separate heifer and cow mobs pre- and post-calving
- Minimising dystocia and retained membranes

Where the CM rate has historically been high, or exposure to risk is unavoidable, then teatsealing the heifers is the most effective strategy.

WHAT'S INVOLVED?

Teatseal® is best administered approximately 30 days prior to the heifer planned start of calving date. All heifers are treated on the same day regardless of the individual calving date. A high standard of hygiene is required for insertion so running the heifers through the milking shed is best, but teatsealing at grazing blocks can be employed with success if suitable yards are available. Totally Vets provides a heifer teatsealing service, so contact us to discuss Teatseal® as an option and to arrange a booking if required.

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Remember to vaccinate all stock and dogs against leptospirosis, and young stock against clostridial diseases too. Finally, Annual Animal Health Reviews are currently being done to cover off dry-cow therapy selection, vaccine requirements and next season's Restricted Veterinary Medicines.

Sheep, Beef and Deer

Prioritise autumn grown feed to ensure your most productive ewes have a chance to reach lambing in target body condition. Scanning is

the key tool for identifying the most productive ewes - see Hamish's sheep (and deer) articles in this edition for further information.

With the onset of colder nights Trichostrongylus, the 'black scour worm', starts to replace Haemonchus (Barber's Pole worm) as the main parasitic threat. Don't let drenching intervals drift wider unless lambs are on particularly clean pasture and remember 'long acting' drenches, sufficient for Barber's Pole cover, won't give lambs

protection from ongoing Trichostrongylus challenge.

Autumn is the peak for egg output of worms and is when we see most clinical parasitism. Current pasture contamination carried over the winter is the initial source of parasite challenge for spring born calves. Quarantine drenching bought-in stock of any species is a sensible biosecurity option.

Finally, if you haven't already done so, vaccinate your hoggets with 5-in-1.

The 'S' word...

'Scours' that is!

Craig Dickson

Anyone who has raised calves for any period of time will have dealt with the frustration of scouring calves. It's stressful, costly and time consuming at a time of the year when finding enough hours in the day is a struggle!



Successful calf rearing is an intensive business. In a nutshell it requires:

- Well trained and motivated staff
- Calves collected from the paddock regularly with clean equipment and navels sprayed
- Good colostrum management
- Dry, draught free, warm, light housing
- Good hygiene
- Well managed consistent feeding

At a time of year when the 'to do' list is long, having to deal with an outbreak of scours can be very challenging. Luckily there are good reliable vaccines available to minimise your risk. This year we will have three vaccine options available; Scourguard®, Rotavec® Corona and Rotagal. These vaccines protect against rotavirus, coronavirus and E coli.

Scourguard® is a water-based vaccine making it tissue friendly (i.e. no lumps and bumps)

at the site of vaccination and less reactive if self-injected. It is given as a 2ml dose into the muscle or under the skin. Animals that have never been vaccinated before need two doses at least three weeks apart with the second dose minimally two weeks before the start of calving. Animals that have been vaccinated before with either Scourguard® or Rotavec® Corona require only a single vaccination minimally two weeks before the start of calving.

Rotavec® Corona is an oil-based product and is more reactive at the injection site and needs to be given into the muscle to minimise the tissue reaction. All animals require a single 2ml dose whether vaccinated before or not. This needs to be given minimally three weeks before the planned start of calving.

The maximum period of cover for Scourguard® is 10 weeks and Rotavec® Corona nine weeks. So a herd vaccinated with Scourguard® as close to calving as possible (i.e. second dose

or annual booster two weeks before) will have protection for the first 10 weeks of calving and likewise vaccinated with Rotavec® Corona three weeks before the start of calving will have the herd protected for nine weeks. If your calving period is longer than this you may need to consider split vaccinating and doing later calving cows after the main mob.

Finally, remember that these vaccines work by cows producing colostrum with greatly elevated antibodies against the diseases vaccinated for. In order to maximise your investment, colostrum feeding and management needs to be done well. Colostrum from first-milking cows needs to be collected separately. The next seven milkings collected and stored together in a colostrum vat and stirred twice daily. Newly born calves require 2L in the first six hours of life with a total intake of 4L first-milk colostrum in the first 12 hours. Consider stomach tubing if necessary and continue feeding colostrum for at least four days.



Taking care of the milking plant will take care of you!

Ryan Carr

For most people the dry period is a time when things around the farm are checked and maintained. Many will get a machine check done by a milking machine tester and some will take the time to check and change rubberware. While these jobs aren't particularly sexy they are important for the health of the udders of your cows. A faulty milking plant and/or perished rubberware can have a big impact on the level of mastitis in your herd.

MILKING MACHINE TESTING:

If a milking machine is not working properly it can lead to increased levels of both clinical

and sub-clinical mastitis. In general terms it does this by causing damage to the teats, incomplete milk-out, or through impacts (contaminated milk shooting from the cluster back up into the teats). Issues with the milking plant that may lead to increased levels of mastitis include:

- High vacuum
- Blocked cluster air admission holes
- Faulty pulsation ratios or faulty individual pulsators
- Leaks in the air lines or inadequate reserve in the milking plant causing cup slip
- Perished, damaged, or poorly suited cup liners
- Perished, damaged, or poorly suited long milk tubes or pulsation tubes

A regular and comprehensive test carried out by your milking machine tester is necessary to find and correct any issues.

CHECKING AND CHANGING RUBBERWARE:

Changing liners is not fun but it is very important! From the moment liners are put in they begin to stretch and perish. After a certain amount of time the extra stretch in the barrel of the liner means that it will no

longer provide sufficient massage to cow's teats during milking, and the teats will become damaged. Perished/old rubber also harbors bacteria, which can spread infection between cows.

Most liner manufacturers recommend changing every liner every 2500 milkings. Often this is more frequently than people think. 2500 milkings is not a number that has been plucked out of the air by people wanting to sell you more liners, it is based on actually measuring how long it takes for liners to stop doing their job properly.

If you do change liners during the dry period don't put them under tension until just before milking starts again otherwise they will be partly worn already when milking starts and will need to be changed before 2500 milkings.

Teats are attached to milking machines for around 50-100 hours per lactation so it is essential that everything is working properly. Get a milking machine test done and talk to your tester about their findings at the time. Change your liners regularly and check other rubberware for signs of wear. If you suspect you are having mastitis issues due to teat damage or incomplete milking and wonder if it could be related to the milking machine call your vet to chat about it.

Gossip

Congratulations to Charmaine who, as a member of the New Zealand Masters 35+ women's hockey team, finished 3rd in the Affiliates Tournament in Hawkes Bay in April. A fantastic achievement and an awesome effort when "competing against way younger players!"

In other news we farewell Glenda McNeill after a very long history of association with Awapuni Veterinary Services, Manawatu Veterinary Services and most recently Totally Vets to a new job at Caldwell Builders in Foxton. She has traded the \$150/week petrol bill for being able to bike to work and share the office with twenty males as company! We will miss her and wish her well in her new direction.

Karin is off on a well deserved break, globe-trotting on the other side of world, last herd of enjoying the sites of Amsterdam! We hope that her navigational skills are more refined than Greg's who, during his week covering in Taumarunui, managed to get lost on his way to a call! Ginny is now fully entrenched in King Country life and is on the PTA of Ngakonui Valley School. She has resurrected her



Hind Pregnancy Scanning

Hamish Pike

Hinds can be diagnosed in-fawn from 30 days pregnant until around 120 days pregnant. After 120 days, the pregnancy tends to drop down into the abdomen increasing the risk of calling a pregnant hind dry. In other words, **it is best to scan hinds 30 days after the stag was removed, and before 120 days after the stag was introduced.**

So for a three cycle mating, this leaves only a three week window for scanning. For example:

Stag in: 10 March

Stag out: 13 May

Scanning date: 13rd June to 8th July

If you wish to have these pregnancies aged so early versus late fawners, or those pregnant to A.I., can be distinguished, then scanning needs to be done as early as possible (i.e. as close to 30 days after stag removal as possible).

If you require assistance in calculating scanning dates, are unsure about your facilities and/or the help required, then don't hesitate to call your vet.

Transition Cow Management - the Window of Opportunity

Lindsay Rowe

The transition time for the modern dairy cow covers the period from 3-4 weeks prior to calving through to 3-4 weeks post-calving and is a brief but critical time where as much as 80% of the herd's disease costs are generated and 4% of cows are culled from the herd involuntarily.

Given the close connection between metabolic diseases, reproductive performance, efficient rumen function and immune suppression, a carefully planned and managed transition feeding programme is now seen as a prime opportunity to set the herd up for a successful season. Information from Dairy Australia would indicate that the return on investment is likely to be \$4.00-\$5.00 per \$1.00 spent!

The focus of this period is to:

- Help prepare and adapt the rumen for the high intakes required of the milking cow diet - the quicker a cow reaches her peak intake following calving the less weight she will lose, with the obvious flow-on effect into increased production and improved fertility.
- Help prepare the cow to manage her blood calcium levels. Low blood calcium at the time of calving is most obviously seen as milk fever but this is just the tip of the iceberg - for every case of milk fever that you treat there will be 15-16 other cows in the herd that will be suffering from a reduced appetite ultimately leading to lost production and reduced fertility. Added to this there will be the increased risk of disease through a suppression of their immune system.

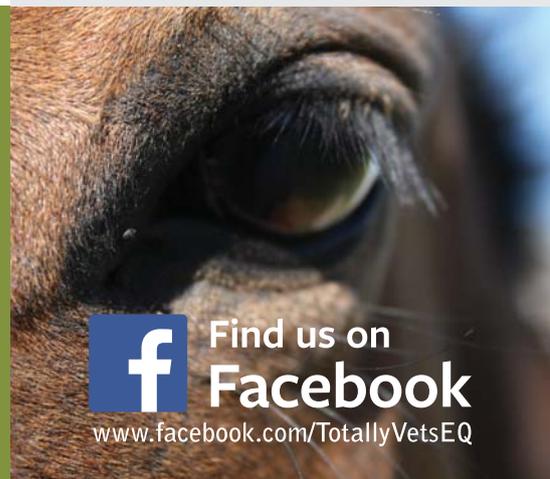
There are now a number of tools such as diet checking software programmes and cow-side and laboratory tests for blood, liver and feed stuffs. These tools, as well as a now vast range of products, can assist the herd manager to fully prepare the cows to successfully transition from late pregnancy and to become the highly efficient "athlete" required on the modern dairy farm - talk it over with your vet sometime soon!

trainers and is hitting the netball court as a member of the Matiere social team.

Totally Vets is now on Facebook double time with the launch of the Totally Vets Equine page. Check us out

www.facebook.com/TotallyVetsEQ and also on Twitter [@TotallyVetsEQ](https://twitter.com/TotallyVetsEQ). We hope to bring you current news, equine health information and updates. So start following us now!

Meanwhile Gaye's cat Lucifur has made a fantastic recovery after appearing at home with a very "flappy" left foot three weeks ago. With some now nylon ligaments, three weeks of bandaging, wearing an elizabethian collar and being on house arrest, he is now weight bearing on all four paws. Hopefully by the time you're reading this he will be out terrorizing the local frogs again!



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Winter ewe management

Hamish Pike

The drought this autumn has been one of the worst in years (or perhaps ever!) with many of you concerned about the impact it will have on the ewes' mating performance and hence overall lamb productivity.

Unfortunately, due to the season, it is likely that there will be more dries and fewer ewes carrying multiple lambs. Consequently pregnancy scanning your ewes in early winter would be a wise move to identify dry ewes to cull, which will not only lead to increased cash flow, but will also reduce the overall demand for feed over the winter.

The first 100 days of gestation is a critical period both for the ewe and the lambs that she is carrying. Energy requirements in the first 100 days of pregnancy are similar to that of a dry ewe being fed to maintenance. Severe under-nutrition during this period can lead to impeded implantation of the embryo, embryonic death, restricted placental development and reduced birth weights despite adequate feed levels in late pregnancy. Severe over-nutrition during this period can lead to over-fatness which can later be expressed as an increased incidence of bearings, pregnancy toxemia (due to reduced appetite) and lambing problems.

If there is a need to save feed for late pregnancy, ewes can be fed sub-maintenance until 4-6 weeks prior to lambing. Up to a 9kg loss can be tolerated without detrimental effects on ewe survival, barrenness, twinning rate, lamb birth weight, lamb survival, ewe milk yields and weaning weights. About 80% of lamb growth however, occurs in the last 50 days. In the last 4-6 weeks, the ewe's

energy requirements increase by 150-200% of maintenance requirements. For example, a 65kg ewe carrying twins requires 15 mega joules metabolisable energy (MJME) a day at six weeks before lambing, 19 MJME a day at three weeks before lambing, and 23 MJME a day one week before lambing.

In reality however, ewes, especially those carrying multiples or over-fat ewes, in late pregnancy will seldom be able to eat enough to meet their total requirements. Some degree of under-nutrition at this stage can be tolerated without lowering birth weights but sudden restrictions must be avoided. Provision of high quality feed is essential (10-11 MJME per kg dry matter) during this time.

So having a feed budget and knowing the requirements of your stock will be even more essential this season than most and may be a challenging task to balance. For further information or support with formulating a plan for your farm please don't hesitate to contact your vet.

Theileria is in the Manawatu

Sarah Clarke

With the recent diagnosis of Theileriosis within our practice, and particularly as we head toward spring and its associated stressors, we felt it was timely to have a refresher on this serious and potentially fatal disease.

Theileria orientalis is a protozoan parasite that lives inside red blood cells and is spread by ticks, being *Haemaphysalis longicornis* in cattle, as they feed on the blood of successive animals. Disease transmission is limited only by the movement of the cattle ticks, which are not particularly respectful of boundary fences, but are easily killed with an appropriate product such as Bayticol®.

There are several strains of *Theileria orientalis* present in New Zealand, most of which are non-pathogenic. Over the last two years veterinarians have observed the transmission

of the Ikeda strain, thought to originate from Northland, as far down as the Manawatu. Unlike other strains of *Theileria*, Ikeda is commonly associated with clinical disease, including death, with outbreaks being most common around times of stress such as calving and weaning.

Symptoms result from the animal's immune system attacking its own red blood cells in attempt to kill the parasite. This results in severe anaemia, and a reduced ability to transport oxygen around the body. Consequently these cows will be pale, lethargic,

Farm staff - a key resource

Lindsay Rowe

That “gypsy” time of the year is fast approaching and, particularly for many dairy farms, staff changes can be a critical factor for an operations future. Like any business, investing in the recruitment and selection of the right staff is a critical component in the success of your farming business. Getting this process right will give you the best possible people for your business and also improve the chance of retaining them in subsequent seasons, thus avoiding the need to invest again in the process.

Recruitment is the process of attracting the right people to apply for the job you advertise. It is more than just placing an advertisement; consider that you are marketing your vacancy. Job applicants recently surveyed by No8 HR cited housing and geographical location as the most important information they were looking for. It is therefore critical that applicants can see this information quickly in any advertisement you publish. After this, factors such as the type of farm and the job content will attract applicants to apply for your

position ahead of others. For good examples of the information applicants are interested in, check out www.no8hr.co.nz and click on “Vacancies” and check the “Job Information Pack” for each position.

Selection is about choosing between the applicants and deciding on the person most likely to be successful in the job and who presents the least risk to your business. A good selection process will ensure that you gain insight into four essential areas before making any choices between applicants:

- Personality - the character traits that a person normally displays
- Values - the principles that a person holds to and how these might influence their expectations and experiences
- Capability - the natural capacity that a person has to learn
- Skill - the expertise that a person has already gained

There are a number of different assessment tools available, which range widely in their ability to successfully predict the suitability of an applicant. At the top of the list is a **work sample test**. The applicant is asked to undertake an actual work activity as part of the assessment process, such as to fix a water leak; condition-score some cows; help in the milking shed.

A **structured interview** is also right at the top of the list. It is based on the principle that the best idea of how someone will behave in the future can be gained by how they have behaved in the past, especially the recent

past. In a structured interview, 50% of the questions examine the person’s experience, 30% focus on their behaviours and 20% concentrate on their attitudes. These questions are written down so that the same series can be asked of each of the candidates, answers recorded and then rated. This process is likely to be as much as seven times more accurate at finding the best applicant when compared to the traditional interview, which along with basic reference-checking, has a relatively low predictive value.

Finally, in much the same way as with structured interviewing, a robust structured approach to **checking of references** involving carefully formulated written questions with recorded and rated answers, can add significantly to the selection process.

In summary, at a minimum, your selection process for new staff should include:

- A face-to-face structured interview with pre-prepared questions to help you evaluate their personality, values, capabilities and skills
- A “farm walk” that includes some practical questions and/or tasks
- Following the interview, a structured questioning of the referees provided

Remember, investing time in doing this process carefully at the beginning should see you score the best people available for your business. You will also save endless hours of pain and grief later on when a poorly researched staff selection turns to custard!

have high heart and respiratory rates and be intolerant to exercise, often lagging behind the herd.

Treatment of severely affected individuals relies primarily on receiving a blood transfusion, which, if done in a timely fashion, is typically successful and a good prognosis is expected. A farmer’s best protection against Theileriosis is biosecurity, but as this is rarely complete, it pays to stay alert.

Disease management involves minimising the stress and movement of affected individuals, and active management of the tick population.

Particularly important is quarantine tick treatment of new arrivals as there is no direct cow to cow spread of the protozoa. A product such as Bayticol® would be an appropriate choice. Stress reduction in cows, such as eliminating concurrent health issues like BVD, facial eczema and trace element deficiencies, will also help reduce the risk of outbreaks in infected herds.

If you suspect your herd may be showing signs of Theileriosis, call your vet for advice immediately.



Are you prepared to take a hit?



One shot could save a hiding.

Scours can knock you sideways – hurting your calves, your family and your income. And it can strike on any farm. With Rotavec® Corona, a single shot before calving helps protect your calves against three of the most common causes of infectious scours – rotavirus, coronavirus and *E. coli*. Talk to your vet today about Rotavec Corona – the easy, one shot way to help your calves stand up to scours.

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ScourGuard 4(K) has a tissue friendly formulation and can now be administered subcutaneously.

What's more, ScourGuard 4(K) is the only New Zealand scours vaccine containing both Rotavirus G6 and G10 strains, for a truly broad spectrum vaccine.

Ask your vet about vaccinating your herd with ScourGuard 4(K).

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