



# VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

AUGUST 2015



## Totally Vets Calendar Competition 2015

Do you have an up-and-coming photographer in your household? Entries are being received for the Totally Vets 2016 Calendar and we need more photos.

Children who attend primary and intermediate schools within the catchment area serviced by Totally Vets, and are in years one to eight, are eligible to enter.

Thirteen pictures will be chosen to feature with **three great prizes** up for grabs.

**Photos are to be farm or animal themed and entries close 14th September 2015. Entry forms may be obtained from your nearest Totally Vets branch, from your school, or can be downloaded from our website - follow the link on our Home page.**



Holly Travers

## New faces

Our **Awapuni** branch warmly welcomes **Holly Travers** on-board in the role of business support.

Holly grew up on a dairy farm near Whanganui, where she essentially spent the first 12 years of her life trying to convince her father to let her have a horse. He finally gave in, and there's been no looking back since. Holly has accumulated several lucky horses along the way and now has her own herd of three thoroughbreds and a miniature.

In early 2014 Holly took the opportunity to move out of the nest and made a big move to Christchurch, where she worked as a vet nurse in a busy small-animal clinic. However, after just under 12 months of living down south, she decided that home is where her heart is and (lucky for us) has moved back home to the farm.



Stephanie Gardiner

In her spare time Holly can be found in the kitchen baking, out with her horses, or crewing for her dad and brother at one of their V8 jetsprint races.

Holly looks forward to meeting and getting to know clients, both over the phone and in-clinic.

Welcome also to **Stephanie Gardiner**. Steph has joined the Finance Team in the role of Senior Accounts Officer based in our **Feilding** branch.

Steph spent four years studying at Massey University where she gained a BBS and a Diploma in Business Studies. After graduating she worked in an accounting role at Audit New Zealand.

She has a keen interest in farming, stemming from growing up on a small farm, and her partner works on a large sheep and beef farm in the Rangitikei area. Steph also has a horse which she enjoys riding in the weekends.



# Totally Vets current stock health

## Dairy

Calving will now be well under way on most farms. Keep on with your transition cow management for those cows not yet calved, most importantly the feeding of a suitable transition diet containing magnesium pre-calving and then adding in calcium immediately post-calving.

Picking up calves twice daily in regularly cleaned and disinfected trailers is good practice. As is spraying their navels with iodine (NOT teat spray as it generally also contains an emollient which works against drying the navel!) as they are put on and off the trailer, into the pen, and daily until dry and shrivelled. Ensure calves ingest (by suckling or tubing)

## HA HA

A scientist gets on a train. In his cabin is also a farmer. To pass the time the scientist decides to play a game with the guy.

"I'll ask you a question and if you get it wrong, you have to pay me \$1. Then you ask me a question, and if I get it wrong, you get \$10. You go first. The farmer thinks for a while...

"What has three legs, takes 10 hours to climb up a palm tree, and 10 seconds to get back down?" The scientist thinks long and hard about the question. Finally, as the train pulls into the station, he takes out \$10 and gives it to the farmer.

"I don't know. What has three legs, takes 10 hours to get up a palm tree and 10 seconds to get back down?" The farmer takes the \$10 and puts it into his pocket. He then takes out \$1 and hands it to the scientist.

"I don't know."

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## Working dog health

Cormac Chalmers

Working dogs play an important role on many farms, so it is important to look after their health and nutritional requirements to keep them fit and active.

All farm dogs should be **vaccinated** as pups (generally at eight, twelve and sixteen weeks of age) followed with annual boosters to keep their immunity strong. The standard vaccine contains Parvovirus (the key concern), Hepatitis, Distemper, and Parainfluenza. **Parvovirus** is incredibly contagious, survives five to seven months in the environment and can be brought onto your property by an infected dog or carried in on shoes, cars or even feed bowls. For this reason vaccination is a cheap insurance policy and can be easily done on farm at your convenience.

**Leptosporosis** is an additional disease worth vaccinating for. Dogs from rural environments are at a higher risk of exposure than your average city dog due to contact with livestock. An infected dog could also be a potential source of infection to humans as the disease is zoonotic. **Kennel cough** is a bacterial infection that requires close contact with an infected dog for it to spread. If your dog team is isolated, with few outside dogs visiting, then the risk of contracting this disease is probably relatively low. However if you have casual workers and/or lots of dogs coming and going then vaccination for this disease should also be considered.

**Diet** is extremely important. Hard working farm dogs need a balanced diet with sufficient calories to keep up with their high energy demands. As a rule, adult dogs should be fed twice a day and not directly prior to work. If you are feeding a relatively low calorie food, this could equal a huge amount of food which can increase the risk of a twisted stomach. Therefore a calorie dense food is more appropriate because it can provide the same level of energy in a much reduced quantity.

**Intestinal parasites** are common. Pups need worming every two weeks until they are three months old, then monthly until they are six months old, then every three months thereafter for life. However if you're on a sheep and beef farm that has a problem with sheep measles then a monthly tape worming treatment is recommended.

**Ensure your working dogs are in tip-top shape by having a solid health plan in place for them today.**



equivalent to 10% of their body weight of first milking colostrum in the first 6-12 hours of life.

Now is a good time to start thinking ahead to mating. Have a mating plan in place. It may include metrichecking of herd, BVD vaccination and bulk milk tank testing, pre-mating heat detection, management of non-cycling cows, heifer synchrony, strategies for maintaining or improving body condition before mating, assessment of trace element

status (particularly copper and selenium) and bull preparation (numbers, source, fertility testing, disease testing and/or vaccination).

Finally, if you are facing challenges this spring then please don't hesitate to phone us for advice and support - we are here to help.

## Sheep and Beef

In sheep and beef cattle it is not too late to booster clostridial vaccinations for some mobs,

ideally two to four weeks prior to lambing/calving. It is also a good idea to administer magnesium boluses in beef cattle three weeks pre-calving to help prevent metabolic issues around calving and early lactation.

Younger cattle may benefit from a spring drench with a product containing a 'mectin' active to safe guard against type II inhibited Ostertagia.



# Hazards of feeding Brassica crops

Helen Mather

Brassica crops can be a great feed source at this time of year but feeding them does not come without risks.

There are several potential animal health issues that may be encountered. These include:

**Nitrate poisoning**, due to high nitrate levels in a crop (also a risk for some pasture too), generally occurs soon after introduction. Plant nitrates are converted to nitrites in the rumen. When absorbed into the bloodstream, they oxidize the red cells to a form that can't carry oxygen efficiently. Clinical signs include sudden death, difficulty breathing, salivation, dribbling urine and neurological signs.

Polioencephalomalacia (PEM) or **thiamine deficiency** can occur as a result of a high carbohydrate content, such as turnips, which leads to the production of thiaminase, an

enzyme that breaks down thiamine. The consumption of Brassica crops, which often contain high concentrations of sulphur, can also cause PEM as sulphur compounds formed in the rumen destroy thiamine. Clinical signs include blindness, neurological signs and death.

**Red water**, or Brassica anaemia, is due to a toxic compound in Brassica (the name of which is abbreviated to SMCO), generally takes one to three weeks following introduction to crop to be seen. SMCO is fermented into another compound in the rumen, which is absorbed into the bloodstream and damages red blood cells resulting in anaemia. Clinical signs include death, weakness, lethargy and difficulty in breathing, poor growth rates, jaundice and red urine.

**Bloat** is build up of free gas in the rumen and can occur at any stage. Affected stock have marked abdominal discomfort and distension or are simply found dead.

Other less common problems include photosensitivity such as 'rape scald' (mainly seen when crops are grazed too early prior to maturity); clostridial disease; copper and phosphorus deficiency; iodine deficiency and stillbirths (only after months of feeding); teeth problems (especially hoggets cutting their teeth); and footrot.

Management strategies can help reduce the risks of the previously outlined animal health issues. Some tips are:

- Introduce gradually over seven to ten days to allow rumen microflora time to adjust.
- Initially restrict grazing to one to two hours per day and never introduce when stock are hungry.
- Provide an additional feed source containing fibre.
- Don't feed more than 20kg wet weight crop per cow per day.
- Monitor stock an hour or two after feeding and then at least daily.
- Ensure clostridial vaccinations are up-to-date.
- Test for nitrates if risk factors are high, particularly if plants are stressed (such as by drought), during dull, rainy weather or following heavy frosts.
- Remove stock from crop immediately if they are displaying any unusual signs or behavior.

**If you're intending to feed Brassica crops don't hesitate to give your vet a call to discuss how you can best utilize this great feed source whilst minimising the risks.**



# The mineral muddle

Lindsay Rowe

Mineral deficiencies are frequently blamed as a cause of poor production and reproduction within dairy herds and many who drive up the tanker track will claim to have the 'silver bullet' that will fix the problem. Usually this will be a 'special recipe' including a secret ingredient that will enhance the effect of the minerals contained in their brew.

Calcium (Ca) and magnesium (Mg) are known as **macro**-minerals and a gross deficiency can lead to milk fever and grass staggers respectively. However these conditions are just the tip of the iceberg as a sub-clinical deficiency of these minerals will lead to a

whole range of less obvious consequences that will affect the farm's profitability. Balance of these minerals is usually achieved through the strategic use of Mg oxide, Mg chloride, Mg sulphate and possibly gypsum, through the transition period followed by the administration of lime flour and Mg oxide through the early lactation period. Dosing to the nearest 10grams per cow per day should be accurate enough but remember that "more is NOT usually better" in this situation.

On the other hand, the **micro**- or **trace** minerals are only required by cattle in much smaller levels. These are primarily copper (Cu), cobalt (Co) and selenium (Se), although iodine, manganese and chromium are also often mentioned. Because of the requirement for only 'trace' amounts of these minerals, dosing needs to be very accurate so as to avoid the toxic effects while ensuring that the desired response is achieved.

Most New Zealand soils are deficient in these trace minerals but local variations are common. These variations are then exaggerated by:

- **The season** - where higher rainfall leads to greater leaching but also to higher pasture growth rates which will dilute the concentration of the element in plant tissue. More rain will also increase the quantity of soil ingested while grazing, which will affect the quantities of minerals available to absorb.
- **Management practices** - which can result in lower grazing residuals, which will restrict intakes and so reduce the mineral intake.
- **Farming intensity** - which will determine the quantity of brought-in supplement feed, in particular palm kernel, which has a high copper content.
- **Fertiliser policy** - which will vary between farms, such as the application of lime changing the availability of minerals.
- **Interactions between minerals** that compete for uptake or form complexes that make them unavailable for absorption.

There is no doubt it is crucial for the micro-mineral status of your herd to be adequate to support high production, excellent fertility, a robust immune system, and growth rates in young stock that ensure them reaching target live weights. Regular blood and liver sampling of dairy stock is therefore recommended to ensure that this is the case. Pasture sampling coupled with soil test results can assist with the diagnosis of trace element issues and can help decide on the best treatment plan.

**The moral of the story - minerals are complicated and silver bullets are usually expensive and over-rated, so seek good advice before parting with your hard earned money.**

# A tribute to our farmers

Last month was an extremely challenging time for many due to the low dairy payout, but primarily due to the extensive flooding throughout our region. Aside from the reports

of having to round up cows by jet ski, sights of a digger on its side sunken in a hole in the middle of the road, feed being delivered by helicopter to cows and staff needing a helicopter ride to work (to name but a few!). The strongest theme that came through was that of community support and the resilience and strength of our local farmers. The willingness to take on extra cows, to

share milking sheds, to allow access across land, to help fix fences and unblock drains, to provide support, a listening ear and a drinking companion at the pub! A massive shout-out to the courage and kindness of you all, and to all those still feeling the effects, a continued offer of a shoulder of support by the team at Totality Vets.



# Dairy herd pre-mating drenching

Reuben Harland

Adult cattle generally have good immunity to internal parasites, but the energy and protein cost for the immune system's response to parasite challenge can lead to production losses in some situations.

Analysis of 87 studies on drenching adult dairy cattle showed that 80% reported positive milk production responses, with an average increase in milk production of 0.04kg milk solids (MS) per cow per day. The range reported in all 87 studies was between 0.0 to 2.1kgMS per cow per day, but this range is likely to reflect variation in herd parasitism levels, age structure, farm system and location, production levels and time the drench was administered. New Zealand (NZ) research showed treating cows at calving produced

0.03kgMS per cow per day extra over 247 days compared to their untreated cohort.

On top of the above milk response there are possible reproductive benefits that also warrant investigation. In a NZ trial heifers were found to benefit most reproductively from drenching at calving, with significantly more treated heifers getting in calf at first insemination, bringing the average calving date 12.9 days earlier for treated versus untreated heifers. There were also indications of higher final pregnancy rates in treated heifers versus untreated. In a large Australian trial of mixed aged cows, that were drenched during the dry period, calving to conception interval was reduced by 4.8 days. A similar NZ trial found it reduce by 9 days.

So the question needs to be asked, how do you determine if a herd will likely benefit from drenching, and is yours one of them? This question can be hard to answer because unfortunately tests to accurately determine the level of parasitism in adult cattle are limited. Both faecal egg counts and blood pepsinogen levels are effective, reliable tests in young stock but must be carefully interpreted in adult cattle.

Herd factors that MAY increase the likelihood of a positive response to drenching include:

- Pasture based systems, especially with cows of high production potential.
- Pastures that were dominated by young stock prior to dairy conversion may take several years for the numbers of worm larvae to fall.
- Farms where calves are grazed on the dairy platform after weaning.
- Lots of young cows in the herd, especially if under nutritional stress.

Results of drench treatment timing studies suggest the great production and reproduction benefits occurred when cows were treated at calving to early pre-mating. Cows wintered on run-off's may be exposed to high pasture contamination and benefit most from a quarantine treatment as they return to the dairy platform pre-calving.

**If you would like to discuss the in's and out's of drenching your dairy herd don't hesitate to give the team at Totally Vets a call.**





# Wairarapa capsule study round two... applying the findings

Ginny Dodunski

The Wairarapa capsule study has highlighted the variability in response to treating ewes with anthelmintics in the pre-lamb period.

The original intent of the work was to develop a clear 'decision tree' for farmers to help allocate pre-lamb worm treatments based on variables such as ewe condition and pasture covers. However, as often found with field studies (as compared to more tightly controlled trials in research facilities) there are many other factors that influence the results that can't be easily accounted for.

Some of the things that were thought may have been good predictors of anthelmintic response (such as skinny ewes, short pasture) turned out to be difficult to demonstrate across all farms. However, when viewed in conjunction with previous research findings, known best practice, and common sense, the results do help us give clearer guidelines than previously:

**Pasture cover** - Of the possible drivers of response analysed, pasture cover had the best fit with response to long-acting (LA)

anthelmintic treatment (as would be logically expected and aligns with what we observe on farms), however there was still marked variability. Given that on so many properties pasture cover from set stocking to docking falls below the known best practice level of 1200kgDM/ha (3.5cm winter-grown pasture) it is not surprising so many farmers observe a response to LA treatments.

**Ewe body condition** - There was no difference in response between well-conditioned ewes and their thinner counterparts. Nearly all treated ewe groups had a bodyweight advantage at weaning. However thin ewes carrying multiples (which in some flocks represent a large proportion of the animals) need all the help they can get, and the fact that they do respond to an LA anthelmintic makes them a logical choice for treatment.

## **Body condition advantage may not persist**

- The bodyweight advantage that was present at weaning did not reliably carry through to tugging. It appears untreated animals are able to play catch-up better through summer, whereas treated animals go through a period of reduced parasite immunity.

**Less dags** - Capsule treated ewes were cleaner than untreated ewes. From a purely economic perspective it is cheaper to chip dags off with a hand-piece, but there are reasons why that doesn't suit on some farms - perhaps genetics could be a solution here?

**Ewe and lamb survival effects** - Treatment did not improve ewe or lamb survival. On nine of the fourteen farms the effect of treatment on weight of lamb weaned per hectare was negative, implying reduced survival. Further work in this area is currently being planned so watch this space. The take home message here

is NOT to expect extra numbers on the ground from an LA treatment.

**Mineral responses** - 25 to 30% of the response on some farms was accounted for by the minerals in the capsules. Selenium is needed by ewes in most districts and B12 on some of our pumice and volcanic ash country. To sort this out perhaps get some livers checked from dry ewes after scanning?

**Drench resistance** - There is no argument that LA products can accelerate the development of drench resistance. Generic recommendations on which products are worse can not be made as this will depend on the pre-existing situation:

- White (Extender<sup>®</sup>) capsules may have a place if you have low-ish levels of resistance to this family. But you need that information down to worm species level to make a proper judgement. White capsules must be used with both a primer and exit drench.
- Double combination (Bionic<sup>®</sup>) capsules are marketed as being safer because they are a combination. The danger is if you already have resistance to the individual actives (or your situation is unknown) you can quickly select for a population of worms that is resistant to both families simultaneously.
- LA moxidectin injections are single active but they kill different species for different periods of time and there is a tail-off period of around 28 days where the drug is present in the animal at a declining concentration. This can allow partially resistant worms to establish and breed, hence use of an exit drench is really important in this case.

# Early preparation for mating

Allie Quinn

Following a season of droughts, floods and a payout plunge, there is no doubt that farm budgets are extremely tight. Farmers will be looking at options to both reduce costs and get the best return on every dollar spent.

For most farms, there is still money to be made by improving the herd's mating performance. Using the InCalf economic models, a 5% improvement in six week in calf rate (ICR) is worth around \$8.00 for every cow in your herd, even at a \$4.50 payout. In addition, every 1% improvement in your empty rate is worth around \$10.00 for every cow.

However, it is not always about the money, and for many farmers the satisfaction that comes with culling fewer empty cows, improving calving spread and increasing milk production are the main motivations.

To start preparing for mating, here are some of the key messages to get things on track:

## PUT THE KEY THINGS FIRST

For your herd, use your last fertility focus report (FFR) to help set key priorities. Having a clear action plan will help use your available funds and resources to the best effect.

## HEIFERS

Protect the investment you have already made in your replacements. Don't get caught with light heifers and take any action for heifer health and feeding well before mating.

## FEEDING

Feeding affects body condition and body condition affects fertility. Condition score your cows before calving, then score again before your planned start of mating (PSM). After calving aim for the herd to lose not more than 1.0 condition score on average, and early calved cows should be gaining condition by PSM. Make sure milkers are not



feed restricted. If your post grazing residuals are less than 4.0cm (< 1500kgDM/ha), seek advice or consider supplementing feed.

## COW HEALTH

Many aspects of cow health adversely affect reproductive performance. Ensure cow health isn't limited by trace mineral deficiencies - plan and take samples if necessary well ahead of PSM to ensure levels are adequate. After calving, cows with endometritis will have reduced submission rates and very poor conception rates. Get high risk cows (being cows having had milk fever, retained cleanings, assisted calving, twins or still birth) checked early, ideally within three to four weeks of calving. For the whole herd, metrichecking is a practical way to find cows with infections. If you are checking the main herd as one group, aim to book this at least three to four weeks before PSM.

## IMPROVE YOUR HEAT DETECTION

Good heat detection takes planning. Staff skills, training and good record keeping are critical. For best results, use paddock observation in combination with heat detection aids. Heat mount detectors like ScratchE's® or Kamar's® are a bit more expensive but are

easier to read and can improve heat detection rates.

## DEAL PROACTIVELY WITH NON-CYCLING COWS

Use pre-mating heat detection to assess the level of non-cycling cows. Determine the cause first, then consider the need to treat. Treating non-cycling cows before PSM is more cost effective than no treatment. Six week ICRs are improved in treated animals.

## BULL MANAGEMENT

In many herds, bulls often fail to get as many cows in calf as they should. A common cause is too few bulls for the number of cows still to get in calf, ideally you need 3% (of number of cows) plus one. On-farm bull management and bull rotation is also important. Plan well ahead so you can source enough BVD negative bulls and get them fertility tested and vaccinated before mating starts.

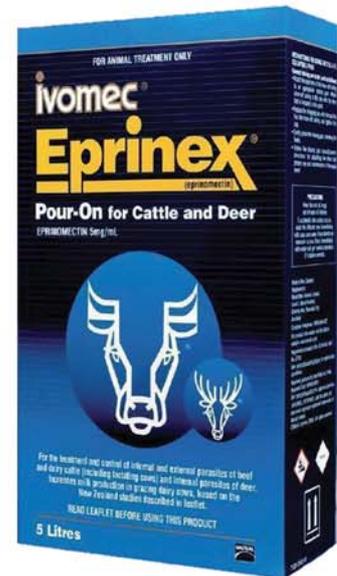
**Preparing for mating is not only about this season, but also about setting things up to improve next year's performance. Investing in improving reproductive performance pays. Start now to get your herd's mating plan on track.**

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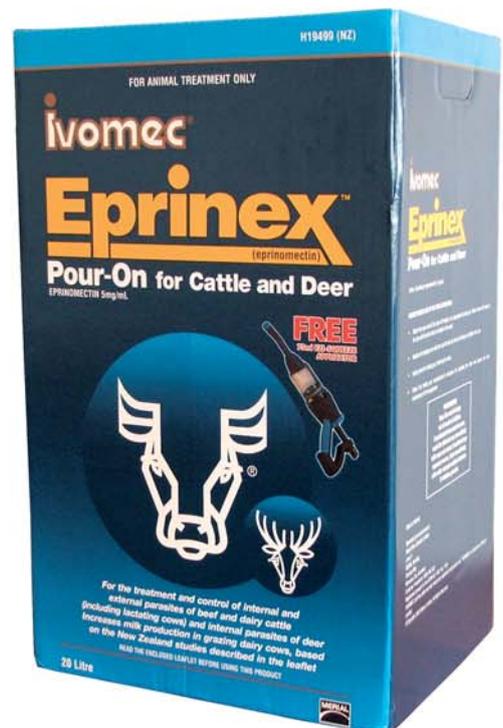


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