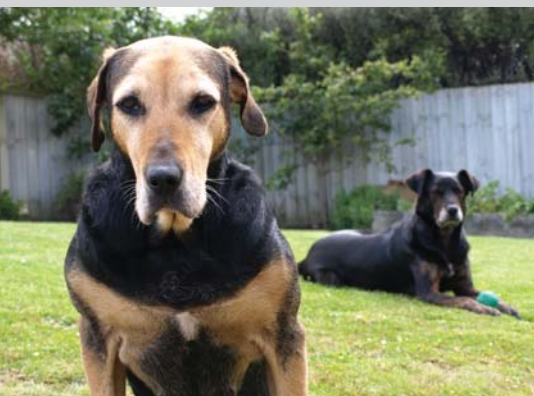




# VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

AUGUST 2013



## Wanted: working dogs with arthritis

Massey University is undertaking a study on working dogs who are known to have arthritis and who are presently not on any medication. They may have had cruciate surgery, hip problems, a sore back or swollen leg joints etc.

The trial involves the use of a drug which is currently on the market and a mobility collar to check the change in activity of the dog. It will take approximately four months to complete the trial and eight visits to the Massey University clinic.

You must have a broadband connection in order to participate in the trial.

**To register your interest and your dog, please contact Christine Moloney at the Feilding clinic on 06 323 6161.**

### FARM FOCUS

## Regan and Rebekah O'Brien, Waituna West

**Regan O'Brien**

Three years ago, when I told my Dad we were thinking of coming home to dairy farm, he thought we were mad. In Wellington, where we had lived and worked since returning from overseas, we had good jobs, a nice rental overlooking the Cook Strait, event-filled weekends and there were flat whites available on every street corner.

As time passed, we were beginning to feel like the lifestyle was becoming a bit mundane.

Three years on, we're in our second season contract milking on our family farm at Waituna West. We milk 500 cows on 200ha using a predominately grass-based system.

Jumping into managing a dairy farm has been a challenge, but we are fortunate to be surrounded by a hugely supportive farming community here in the Manawatu.



Farmers in the district are always willing to offer an opinion or lend a hand, as are our family. We have a well-supported dairy discussion group in North Manawatu and a very helpful DairyNZ Consulting Officer. The rural retailers and service people have been great to deal with, as are the rural professionals we use such as Totally Vets. Our vet, Craig Dickson, helped get us through our first year, attending to a range of cow ailments and advising on seasonal herd health issues in a proactive way. This allowed us to keep a forward focus on the season.

There is the odd (normally cold wet) day when I think we were mad to do this, but we are now settling into the rural life and looking forward to the coming season.



# Totally Vets current stock health

## Dairy

A good autumn saw a lot of growth. Given the dry summer, many farms have achieved better production than was expected for last season.

Body-condition scores (BCS) are variable around the region however, and the effect of the drought may yet rear its ugly head in terms of down cows and poor reproduction

this season. Keep an eye on the BCS of your herd and consider testing B-hydroxybutyrate (BOHB) as cows begin to calve, to get a picture of the herd's nutritional status.

As calving hits full swing, remember the ten-minute rule for assisting cows: if you haven't made progress in 10 minutes, call your vet. Treat down cows aggressively because the longer they stay down, the less likely they are

HA HA

## The art collector

A famous art collector is walking through the city when he notices a mangy cat lapping milk from a saucer in the doorway of a store and he does a double-take. He recognises that the saucer is extremely old and very valuable, so he walks casually into the store and offers to buy the cat for two dollars.

The storeowner replies, "I'm sorry, but the cat isn't for sale."

The collector says, "Please, I need a hungry cat around the house to catch mice. I'll pay you twenty dollars for that cat."

And the owner says "Sold," and hands over the cat.

The collector continues, "Hey, for the twenty bucks I wonder if you could throw in that old saucer. The cat's used to it and it'll save me from having to get a dish."

And the owner says, "Sorry buddy, but that's my lucky saucer. So far this week I've sold sixty-eight cats."



## Roy Fergus SALES MANAGER

We are delighted to welcome Roy Fergus, who joined Totally Vets as Sales Manager on 1st July.

While Roy will be centered in Taumarunui and manage farm supplies for that region, he will also work in sales and marketing across Totally Vets' clinics in the Manawatu. For Totally Vets, "ethical selling" is an important point to our service. This service will ensure the products you purchase from us are right for the job and are backed with our veterinary expertise.

Roy and his wife Pam live in Omori, at the southern end of Lake Taupo. Roy's outside-of-work interests include rugby (passionate), car racing, fishing (passionate) and playing golf when time allows.

Roy's 42 years' experience in the veterinary animal health field will be invaluable to

you. His knowledge on products and their application are second to none.

This knowledge has been built through his work as Regional Manager for Ancare NZ Ltd (looking after the Manawatu, Taihape, Raetihi, Wanganui and Taranaki regions) and for the last four years, Roy has travelled from Omori to Taranaki to service clients in Maxwell, Waverley, Patea and Hawera as Farm Supplies Manager for the Taranaki Veterinary Centre.

Roy is looking forward to meeting and working with you, whether you are a sheep & beef farmer or own/manage a dairy operation.

If you have queries on internal or external parasite control, trace-element or mineral supplementation, feed supplies and mixes, products for the dairy shed and vaccines, Roy can be contacted 07 895 8899 or phone or txt on 027 524 3636.

Roy will be working closely with our veterinary team to ensure you receive the best advice available and is big on service.

Totally Vets prints **Vet Notes** on paper using FSC certified mixed source pulp from Well Managed forests and other controlled sources. The paper is produced under an environmental management system ISO 14001.





to get up. If you haven't got a firm plan for treating down cows in your mind, have a quick talk to your vet to get it sorted ASAP.

## Sheep and beef

With half the scanning completed, percentages seem to be down by about 10-20% on last year. Feed covers did not improve for later-mated flocks, so these results are unlikely to get better.

Bearings can be a cause of much frustration at this time of year. While our knowledge of

this disease is limited, one thing we do know is that starving ewes in late pregnancy does not help!

It may be timely to consider whether a pre-lamb drench in the ewes would be appropriate. Ewes with lower body condition and grazing to low levels may benefit. Talk to your vet to discuss.

Internal parasites, including lungworm, have been causing clinical signs and may continue to be a problem in beef cattle. Keep

a watchful eye on cattle, especially younger stock, even through these colder months, and talk to us about best drenching practice.

## Deer

We have been seeing a few cases of lungworm in deer. Watch out for decreased appetite, loss of body condition, roughened coat and unexpected deaths in a herd. Coughing is not always a sign.

# Pre-lamb drenching this year

Ginny Dodunski

A worm treatment for ewes is a standard part of the pre-lamb routine on many farms; often with a long-acting product capsule or injection, in the belief that there will be production gain and a reduced level of pasture contamination to the new season's lambs.

For a number of years, we have advocated long-acting pre-lamb treatments be restricted to the lighter-conditioned multiple ewes, that they are the most likely class to give a response, with the treatment of only a proportion of the flock being better for sustainability reasons.

However responses to pre-lamb drenching are more variable than you think, and monitoring done at this time can be more difficult to interpret than monitoring done earlier in the winter.

Our own work has shown clearly that ewes that are light in early winter will almost always have higher faecal egg counts (FECs) than their better-conditioned flockmates, and perform better drenched at this time rather than left to fight it out with the parasites.

But the results from a collection of pre-lamb drenching studies (including our own, plus recent work from AgResearch) show no consistent response to drenching light ewes at pre-lamb time; the conclusion from AgResearch being (surprise, surprise) that the level of feeding after the drench is more important than the treatment itself. Parasite control earlier in the winter may turn out to be more important, watch this space...

A complicating factor is that the FEC rise seen in ewes in the pre-lamb period can't be interpreted in isolation; high FECs on their own don't consistently translate into a production response to a drench.

Something not often mentioned with pre-lamb drenching is whether or not your drench is actually working! There is a common belief that if you are using a combination product or moxidectin that you will be OK, but recently-reported work challenges this strongly.

A recent summary of drench-performance testing results from across NZ by Dr Andrew Dowling from PGG Wrightson showed:

- Resistance to moxidectin on nearly a quarter of farms
- Resistance to benzimidazole (white)/levamisole (clear) combination found on 37% of farms

Moxidectin is still one of the most popular pre-lamb drench options; the risk of it not working pre-lamb may actually be understated in the figures above, given that by far and away the most commonly-resistant species is



*Ostertagia* - and this is the predominant species in the early spring.

Combination capsules are not a cure-all either; the doses of each drug are much lower than in an oral drench, and given the high prevalence of both levamisole and 'mectin' resistance, use of these could be making a resistance situation worse.

Why not plan to set aside 1k from your first lamb cheque this summer to find out your farm's resistance status? Takes the guesswork right out of all your drench choice decisions, not just pre-lamb.

Finally, years of trial data from AgResearch show that long-acting pre-lamb products don't reliably reduce pasture worm contamination in spring; the contribution from ewes is actually less important than contamination carried over from lambs the previous autumn.

**In summary, the benefits of pre-lamb drenching are not as easy to predict as all the rural delivery advertising would have you believe! Make some time to talk to one of our sheep vets about the right choices for your own situation.**



## Sub-clinical ketosis

Chris Carter

Sub-clinical ketosis is a common finding in NZ dairy herds following calving; the highest risk period is 2-6 weeks post calving. When sub-clinical ketosis occurs, affected cows produce less milk solids, are less fertile and have an increased risk of clinical ketosis, and are susceptible to displacement of the fourth stomach (abomasum).

Put simply, sub-clinical ketosis is the result of a negative energy balance. With their energy requirements not being met, cows mobilise their fat reserves which will lead on to a decrease in body-condition score (BCS). A by-product of fat mobilisation are ketones and it is this chemical which is toxic to the body at higher levels.

Body-condition score itself is not an indicator of whether a cow will or will not have sub-clinical ketosis after calving, it is the change (decrease) in BCS which is important.

NZ studies have shown that in excess of 50% of herds demonstrate sub-clinical ketosis up to 6 weeks after calving, and the percentage of cattle affected within these herds can range from 2% to over 60%. Season-to-season variations can be expected depending on weather and feed quality and availability.

NZ studies have shown that in those herds where sub-clinical ketosis occurs, heifers and cows 5 years plus are the age groups that are more likely to be affected.

To diagnose sub-clinical ketosis, blood or urine tests are the normal approach. This year, Totally Vets is introducing cow-side testing using a handheld device. A drop of blood is all that is required for the test.

Fifteen animals are taken from the herd 2-6 weeks after the start of calving. A mix of age groups is selected. Within 30 minutes, the sub-clinical ketosis picture for the herd is known.

If sub-clinical ketosis is ignored, NZ studies have demonstrated increased levels (2.5

times higher) of endometritis (i.e. a grade 2-4 metricheck score) leading to a (7%) lower 6-week in-calf rate and subsequent lower days in milk in the following season.

To avoid sub-clinical ketosis factors such as energy- and protein-rich roughage, tasty high-energy concentrates and suitable feeding during the dry period are important. If you are feeding silage, the quality of the silage will also influence the occurrence of sub-clinical ketosis.

The addition of monensin to the diet (marketed as Ruminox or Rumensin) will assist in reducing sub-clinical and clinical ketosis. Monensin selectively inhibits gram-positive bacteria in the rumen and as a result the remaining bacteria allow a higher level of glucose to be available to the cow for any given feed.

Higher levels of glucose reduce the size of negative energy balance in early lactation, therefore lessening body fat mobilisation and lowering ketone production.

**For further information on cow-side testing for sub-clinical ketosis and advice on how to avoid this condition, please talk to our veterinary team.**

## Totally Vets welcomes Kylee Webb

We are delighted to have Kylee join the team as a large animal veterinary technician.

Based at the Palmerston North branch, Kylee be providing technician services across the Totally Vets' clinics in the Manawatu.

Kylee replaces Wendy Hull, who left Totally Vets to pursue a farming career. We are very sad to see Wendy leave but wish her all the best with her new vocation.

Kylee comes with a lifetime of farming experience. She not only grew up on a Manawatu dairy farm, but has also managed her parents' dairy farm as well as managing her own. She has been an AI technician for a number of years and can turn her hand to most things.

While Kylee enjoys most sports, her main hobbies are mountain biking and



snowboarding. She also really enjoys looking after stock!

# A balancing act

Chris Carter

## Knowing whether your dairy herd is getting sufficient essential minerals is tricky.

For almost all farms, there will be times when the cattle are getting an insufficient daily intake of minerals either because these minerals and trace elements are at sub-optimal levels in the pasture or feed, or the cattle are in a feed pinch and their daily feed intake is too low.

The key minerals and trace elements which need to be considered include calcium (Ca), magnesium (Mg), selenium (Se), copper (Cu), zinc (Zn), cobalt (Co), manganese (Mn) and boron (B).

Although all are essential components for daily health, they are required in trace amounts and paradoxically are toxic when their intake is too high. Copper is a classic. With the common use of Palm Kernel (PK) in dairy herds, the risk of Cu toxicity is very real when cows are on PK and receiving Cu supplements by way of injection, bolus or with higher Cu levels in a daily mineral supplement.

Knowing the mineral and trace element status of your stock is important before ordering your supplements and to do this, your animals must be tested. Monitoring this status is part of an annual program for monitoring animal health and ideally starts during the dry period with liver biopsies and/or the testing of cull cows at slaughter. Now we are into spring calving,

we will tend to rely more on blood tests. The results of such tests and how the herd is being fed, and management strategies for the farm, will shape the advice we provide on supplementation.

The interaction between minerals/trace elements and fertiliser use must also be considered, particularly with higher nitrogen (N) and potassium (K) use. A number of these compounds will interfere with pasture levels of the essential minerals and trace elements into the pasture.

Although the body is able to store some of these minerals and trace elements, others are needed on a daily basis. Magnesium is one of the minerals which definitely must be received daily. For Mg production increases so does her requirement for Mg. A lactating cow requires 15 to 20g (Jersey/Friesian respectively) of Mg daily. This Mg can be delivered as an oxide, sulphate or chloride, all of which will provide different availabilities of Mg. The table below provides the daily Mg requirement with each of these forms of Mg.

If dusting with CausMag on pasture, double the quantities in the table to allow for field losses, e.g. crossbred cows need 16g of Mg or 29g of CausMag or 60g per cow per day dusted or 6kg per 100 cows per day.

How long do I supplement for? Using magnesium as an example, spring-calving cows should be supplemented two to three weeks before calving and be continued until there is enough magnesium in the diet, i.e. when cows are not being challenged with high N and K diets, inclement weather, and high milk production. This can be in early November and generally is before Christmas. With high-producing cows, the need for magnesium supplementation may continue into the summer.

Mineral and trace element supplementation is a complex business and it is a balancing act. When it's right, you will definitely see the effects flow through to your cattle. Herd health improves along with better performance, with cows getting back into calf. Get it wrong and there are the obvious milk fevers and grass staggers, white muscle disease, toxicity deaths but perhaps less well recognised is general ill-thrift, higher percentage of retained afterbirth and lower production despite high feed levels.

To get professional advice on mineral supplementation in your herd, contact your vet. If supplements are required, Totally Vets can supply products which are backed with our independent professional advice.

Magnesium Source (% Mg)	Product	Magnesium required (grams per cow per day)				
		12g	14g	16g	18g	20g
Mg oxide	CausMag	22	25	29	33	36
Mg sulphate	Epsom Salts	122	142	162	182	202
Mg chloride	Mag Chloride	100	117	134	151	167

# Lloyd Smith training day

Totally Vets is pleased to bring Lloyd Smith to the Manawatu for a working dog training day, to be held on Monday 14th October.

Lloyd lives in North Otago, has trained countless working dogs and personally achieved 39 trial placings in both Huntaway

and Heading classes. Lloyd enjoys sharing his learnings about the training of dogs and is the author of "From Pup Pen to Paddock".

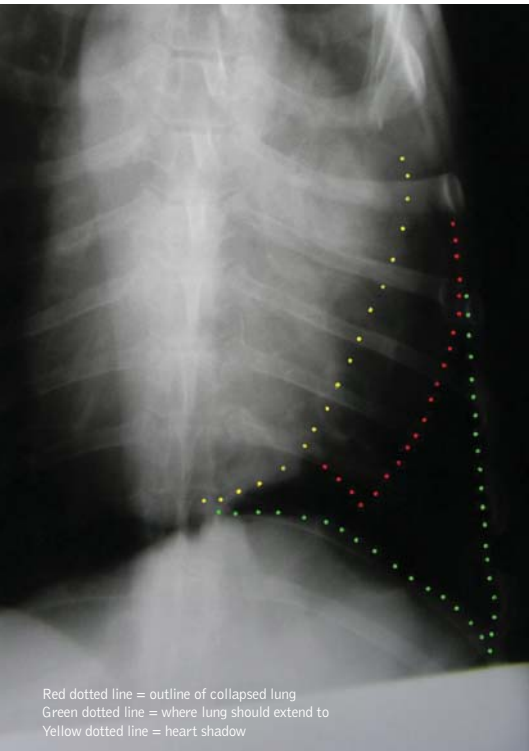
Spaces for this event will be limited. If you wish to register, please phone Catherine or Eliza at the Feilding clinic on 06 323 6161. Venue and details will be confirmed.

In addition to a public session, one-on-one training will be available for selected individuals.





Meg the lucky dog



Red dotted line = outline of collapsed lung  
 Green dotted line = where lung should extend to  
 Yellow dotted line = heart shadow

# Meg the lucky dog

Helen Sheard

Meg, a 1 year old heading dog, arrived at the Feilding clinic in a serious state, gasping for breath but still on her feet. She had been out in the paddocks that morning and run into a stick at chest height, which was hidden in the grass. Her owner had to make the decision whether or not to pull the stick out - he did, and found that it had penetrated 20cm into her chest!

On examination, we found a 4cm long wound in her right armpit that was making a sucking noise every time she breathed. Her respiratory rate was increased and she was having to take huge breaths to get enough oxygen. Despite this effort, her gums were a nasty pale blue color, and she was going into shock.

The wound was quickly closed with skin staples to stop it sucking air into her chest and collapsing her lungs. While oxygen was supplied via a mask over her nose and mouth, both sides of her chest were clipped and

prepped. Needles and tubing were inserted through the chest wall on either side, and used to suck out the air and blood that was surrounding the lungs and collapsing them. 500ml of air was removed from the left side of the chest, and 800ml from the right. When you compare this volume to the chest size of a 20kg dog, there wasn't much room left for normal lung tissue. Once the lungs were able to reinflate, her breathing rate and effort improved.

Meg was then started on IV fluids for shock and given pain relief. Xrays showed the track that the stick had taken into the chest, hitting the sternum then passing between two ribs. The lungs had reinflated but there was some serious bruising present.

She was in a serious condition for 12 hours, requiring continual IV fluids and supplemental oxygen. But the tough old girl rallied and next morning she was on her feet and looking for breakfast!

There was still the matter of the wound to clean and make sure there were no fragments of stick left under the skin, but this would wait until her lungs had healed and she was fit enough to handle an anaesthetic.

She came back to the clinic to get her stitches out recently and her owner reports she is doing great and is keen to get back to work - albeit on light duties!

# Calving paralysis

Joao Dib

With the calving season, inevitably there will be cases of post-natal paralysis. It can affect both heifers and mixed-age cows. This condition is most often seen after difficult calvings, the birth of large calves, or prolonged calvings. The cows are often down and generally bright and alert. Appetite is not often affected, at least initially.

Within the pelvic canal, or birth canal, two major lumbar nerve roots emerge: the obturator nerve which functions to keep the legs close to the body and the sciatic nerve which works by powering muscles that stretch the back legs. The sciatic nerve also gives sensory innervation to the lower leg.

## WHAT ARE THE CLINICAL SIGNS OF BOTH OBTURATOR AND SCIATIC NERVE DAMAGE?

In obturator nerve damage, the animal may stand but is unable to keep the legs close to the body, so that the legs are spread apart. With mild sciatic nerve damage, the animal may only show knuckling of the fetlock or fetlocks. If the compression damage is significant, the animal will be down, unable to stand; in very severe cases, there will be loss of skin sensation below the stifle and around the foot/feet. In such cases, prognosis is guarded, at best.

## EARLY INTERVENTION

Administer anti-inflammatories if you have an animal that has gone through a difficult birth and you suspect nerve compromise. Keep the animal close to the milking parlour for a few days until all signs have resolved. Move her gently, especially over wet, slippery concrete. If the animal is down, the chances of recovery will depend on the extent of nerve damage (you may need a vet to check the cow for you) and the nursing care she will receive while down.

For a recumbent animal, keep her indoors over a thick layer of sand or straw. She will need to be pushed onto the opposite side every 3-4 hours, in order to minimise the chances of irreversible muscle necrosis due to prolonged periods of lying on the same back leg. Ensure plenty of good quality feed is close by and always plenty of water.



# Beef cows: the magic month before calving

Ginny Dodunski

The profitability of commercial cow herds is most strongly influenced by the number of live calves born and weaned.

As Trevor mentioned in the June newsletter, feeding in the month prior to calving is a critical driver of cow and calf survival. Ideally a month from calving, most cows in the herd are at body-condition score (BCS) 5 (out of 10) and are fed such that they do not lose any more weight.

What does BCS 5 look like? And how do you know if they are getting enough tucker?

A cow in BCS 5 (1-10 scale):

- both hip bones and pin bone are smooth (but not fat) versus flat and angular
- backbone is smooth, not bumpy
- general appearance is smooth but when viewed from behind, there is still a decline either side of the spine; not totally flat across the back and no fat lumps allowed!

You may have 3 groups of cows:

- Some fatties who can be fed to drop to BCS 5
- Some around the magic 5 who need to be held

- Light cows who could be lifted (if there is the feed? Always a good move to drench these regardless)

If you have the infrastructure to manage these groups differently, it will pay dividends in cow and calf survival; especially in the prevention of what I call 'thin cow syndrome'; for some reason, these cows just seem to be better at falling in holes, slipping off bluffs and taking a long time to push out calves who then die...

BCS 1 is about 40kg LW. You can use this when feed budgeting for fat cows who can afford to lose weight (maybe there are some of these in Taumarunui - haven't seen many in the Manawatu!)

- Maintenance for a 450kg cow is 9kg dry matter per day (more than you think!)
- For every 1kg of LW loss, you save 3kg DM (30MJME/kg LW loss - less than you think! Borrowing from the bodyweight bank is expensive)
- Angus type cows can be fed as little as 3.5-4kg DM/day for short periods in the winter
- For your 450kg cow, while you are doing this she will lose around 2kg LW/day; therefore 20 days of feeding like this will drop 1 BCS
- For the thin BCS 4 cow who needs to gain 40kg, she requires an extra 5.5kg DM per kg of gain, so 240kg extra DM! A lot isn't it, and would have been much easier to plan for in April...

How do I know if they are getting enough feed in the 'magic month'?

- Residuals of 1400kg DM/Ha on pasture - your calving date determines how easy this is to achieve!

- Cows on crop/baleage/hay feeding systems can have their requirements calculated; talk to us if you need help with this; obviously some common sense observation of cow behaviour and feed left over is a good guide to whether you are feeding enough too
- We commonly observe that cows calved on standoff areas and fed baleage or hay perform much better when a small amount of extra energy supplement is added, e.g. molasses/PKE

Animal health checklist:

- Grass staggers (magnesium deficiency) is most commonly 'lack of grass' staggers actually! Cows fed to meet the above targets rarely get grass staggers
- That said, the earlier you calve, the more careful you should be about supplementing magnesium, even when feed is adequate. Rumevite magnesium bullets are a very reliable way of taking this issue out of play
- Pregnant cows do not do well if they have to share their liver with fluke; we are seeing some high-fluke challenge after the dry autumn, be alert to this
- Copper and selenium should not be limiting in the month prior to calving
- Young cows and thin cows may benefit from a drench, which effectively targets all stages of *Ostertagia*. Use an injection such as Genesis or an oral (cost-effective options are 'Converge' or 'Switch C') for sustainability reasons. If the cattle have lice, use Tempor, a cheap louse pour-on.

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