JULY 2016

# VET NEWS

MAGNESIUM

ROTAVIRUS

COPPER TREATMENT

PHOTOS BY RICHARD HILSON

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# IMPORTANCE OF MAGNESIUM TO BEEF COWS

SAM BURROWS

Often considered as secondary importance to calcium for a lactating cow, magnesium is involved in many processes of a cows metabolic cycle. Unlike calcium, the magnesium stored in the body is not as readily available in times of high demand in response to low blood levels during the lactational period. For this reason lactating cows are heavily dependent on the dietary supply of magnesium, which is often not met due to low magnesium content of spring pasture.

A deficiency in magnesium (Hypomagnesaemia) is responsible for the metabolic disease commonly known as grass staggers, which is primarily seen in lactating adult cows.

Often the initial signs of grass staggers are seen as restless cows which appear to show increased alertness to their surroundings. This further develops into an unusual gait, hence the name grass staggers. When the metabolic deficiency progresses further to the down cow stage, they can be distinguished from hypocalcaemia cows due to the fact the hypomag cows will be 'alert' downer cows. In extreme cases, the first sign is often dead cows found in the paddock, sometimes up to 20-30% of the herd.

In order to prevent grass staggers the simple answer is to supplement magnesium to your herd. A major point to supplementing is that it begins at least two weeks prior to the high risk period, which is calving time. The not so simple answer is to work out which is the most practical and efficient way of supplementing.

Magnesium supplementation can be achieved through:

1. Top dressing magnesium oxide onto pasture.
2. Added to silage or hay, again mag oxide.
3. Dispensed through water troughs in the form of mag sulphate or mag chloride.
4. Drenching a mag oxide mix orally to each individual cow.
5. Delivered directly to the rumen via intra-ruminal capsules, such as Rumetrace.

For some beef herds, the most practical solution to supplementation is through Rumetrace magnesium capsules. This provides a reliable source of magnesium in cases where dusting is impractical; farm infrastructure doesn't allow trough treatment; or free access to water means cows will avoid treated water troughs.

Rumetrace magnesium capsules act as a slow release source of magnesium to the rumen at a constant rate of 2g per day over a 9-12 week period. This helps meet the magnesium requirement of a lactating beef cow of 2.5g per day. As mentioned, it is important to ensure they are administered at least 2 weeks prior to the high risk period, this allows for the electrolyte reaction to occur and magnesium supplementation to begin. If implemented correctly, Rumetrace magnesium capsules are considered to be an insurance in preventing hypomagnesaemia and the impact of grass staggers on your farm.

# ROTAVIRUS

CAMILLE FLACK

Calving may still seem a long way off, but decisions made now could help ensure your season gets off to a smooth start, without the added hassles of rotavirus scours in your calves.

Rotavirus is still New Zealand's most important cause of scours in calves. An outbreak at the start of the season can cause a huge amount of stress at a time when you are focused on calving and dealing with other animal health issues.

There is little you can do to reduce calves' exposure to the virus. It is shed by cows around calving and infected calves shed it in huge quantities. Any calf-rearing facility, especially the larger ones, provides ample opportunity for the virus to spread quickly. As beef prices continue to look promising there is a greater tendency to keep more calves until weaning to supplement your income. This places increased pressure on your calf rearing system.


It is labour-intensive, expensive and emotionally draining trying to nurse scouring calves back to health. They spread the virus, many will die, there is often permanent damage to the gut lining of survivors and they never seem to reach their full potential as adults. It also opens up calves to infection from other organisms such as Cryptosporidium, coronavirus and E. coli K99. Most calf scour testing frequently returns a diagnosis of a mixed infection from calf scours cases. It is common that rotavirus is one of the chief culprits and where all the problems start.

With vaccination pre-calving the protective antibodies are passed onto calves through colostrum milk. This provides the calves with passive immunity. While the calves are fed colostrum from vaccinated cows during the first two to four weeks of life, these antibodies have been demonstrated to

- reduce the severity of diarrhoea caused byE. coliF5 (K99),
- reduce the incidence of scours caused by rotavirus
- reduce the shedding of virus by calves infected with rotavirus or coronavirus

Fortunately, with a planned calf-rearing programme that includes annual vaccination of your herd with Rotavec® vaccine, you can minimise the effects of rotavirus in your calves. The time to vaccinate pregnant cows is between 12-4 weeks pre-calving; this timing is important, so it is already time to start planning to protect next spring's crop of calves. There are countless examples of farms that have experienced a dramatic fall in calf-scour problems once a vaccination programme has been set up. A common remark is that the protection brings a huge sense of relief and peace of mind.

# VACCINATING EWES IN A WINTER DROUGHT

SIMON MARSHALL

This year is shaping up to be very similar to the last winter drought in 2007 that I can remember. All the NIWA data is mirroring the situation in 2007. The 2007 year was a situation where there was less than ideal feed levels and ewe body condition heading into lambing. This requires some different ways of thinking in the pre-lamb management of sheep.

One issue that we must always keep in mind is the metabolic status of the ewe at this stage in gestation. She is growing a foetus, or hopefully foeti, at a rapidly increasing rate, getting her udder ready to start producing vast amounts of high energy milk all the while having less and less room internally to fit the higher amounts of feed that all this demands. She not only requires energy for this process but also minerals such as Calcium to calcify the skeleton of the lamb in the uterus.

If we take away the energy and/or minerals that she requires we risk her getting issues such as sleepy sickness or milk fever or worst case scenario, both. We also risk having issues at lambing time with lambs being born with less brown fat and having less colostrum available to it, this can lead to poorer lamb survival. The longer we take her off feed the higher the risk and also the closer to lambing we do this the higher the risk.

So the two things that we can do is do any management procedures quickly and as far away from lambing as possible.

One critical animal health intervention pre-lamb 5 in 1 vaccination. Traditionally this has been done at set stocking around 14 days from the start of lambing. If things go wrong at this stage due to weather issues or other problems and the ewes are off feed for an extended period we can have problems. By moving this procedure forward to 4-6 weeks pre-lamb we can mitigate this risk.

One factor that we have been wary of is getting maximum antibodies into the colostrum to give the new-born lamb the best chances of making it to weaning. To ensure that there are plenty of antibodies in the colostrum it is important that the body has time to make them when the udder is developing and getting ready to start lactating. By moving the 5 in 1 vaccination forward to 4-6 weeks pre-lamb we will give the body a good chance to achieve this.

So if you are worried about ewes being off feed close to lambing when they are already compromised due to low feed levels have a talk to us about ways you can potentially change your management to have the best outcome for the ewes and the lambs she is carrying. Doing everything you can in a year like this to ensure that a reduced scanning percentage does not result in a reduced lambing percentage by minimising ewe deaths and increasing lamb survival will have a good impact on the profitability of the ewe breeding system.

# COPPER TREATMENT OPTIONS FOR THIS WINTER…

RICHARD HILSON

There are a plethora of copper treatment options on the market and a wide range of methods to correct or avoid copper deficiency in cattle, sheep or deer. As copper levels usually hit their lowest point in late winter or early spring, much local treatment is aimed at avoiding clinical copper deficiency at that time of year.

Oral supplements are often not suitable as they need to be provided on an almost daily basis to allow for adsorption from the gut but without toxicity issues from excessive one-off uptakes. In intensive situations these will have favour with dairy systems but in extensive farming systems we cannot reliably or easily supplement animals with copper in this manner.

One option for long term copper supplementation is the use of copper "bullets" which deposit a quantity of copper in the gut, providing supplementation for up to six months. However these do require a fair degree of animal restraint and physical input on behalf of the stock handlers so while they have a definite place, copper bullets are usually not the preferred option.

To that end, the simplest option is often the use of injectable products with a relatively "long term" supply of copper. There are a range of similar products, in one of two forms. "Coppergard" (produced by Virbac) is a copper edetate product and these formulations tend to produce smaller injection site lesions than products containing copper glycinates- this has practical implications for potential carcase damage and in avoiding skin lumps that confuse the reading of routine TB tests in deer. The edetates are absorbed somewhat faster, which is a double edged sword: fast absorption means quicker correction of deficiency but it also means an increased risk of toxicity.


Copper is an important trace element for cattle and deer in our region but we need to consider the use and safety of what has become a fairly routine provision of copper by injection. You need to know if your animals have a requirement for copper (test via blood samples or liver test), consider these in conjunction with farm soil tests results and be careful to follow instructions when administering copper injections. A couple of issues that spring to mind is that copper injections should not be given concurrently with other animal health treatments or to stressed animals. In general the risk of toxicity is low but the result of overdosing or application to stressed animals can be spectacular death rates. Obviously toxicity risk is heightened further if animals already have plenty of copper on board- have they been treated already (newly purchased weaner calves) or does the time of year mean they may already have naturally sufficient levels (summer)?

Do your cattle or deer need copper? Have you tested? Is the time of year appropriate for supplementation?

# ORTHOPAEDICS AT VET SERVICES HAWKES BAY

DAVE KRUGER

Orthopaedic cases form a large part of our day to day case load in companion animal practice. By their very nature dogs and cats are prone to misadventure and unfortunately this sometimes leads to broken bones or joint trauma.

In our town animals these are mainly related to motor vehicle accidents, while in the case of working dogs trauma due to interaction with farm stock and getting caught in fences contributes to most cases.

We are well equipped to deal with the majority of orthopaedic surgical and non- surgical cases. We have vets in each of our clinics who are experienced and passionate about orthopaedic surgery. On occasion with extreme cases or where we require specialized equipment for fracture repair we will refer animals to a specialist surgical facility for care.

In terms of first aid for animals with limb injuries, in particular unstable long bone fractures it is important to stabilise the limb in some way prior to transporting the dog/ cat into the clinic. This will help prevent soft tissue trauma to blood vessels and nerves that can occur due to movement of sharp bone ends. Always take care to muzzle injured dogs before attempting to handle as even the nicest pet will bite if in severe pain.

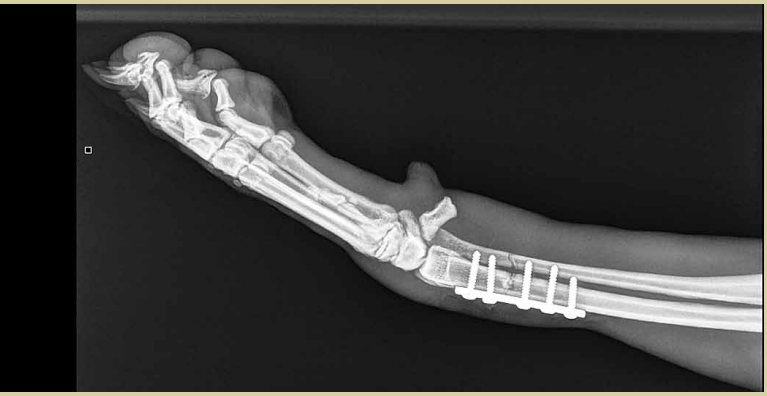
Common orthopaedic injuries include stifle injuries such as anterior cruciate rupture. This may occur as a spontaneous rupture during exercise in middle aged dogs, in particular overweight large breed pets. Severe stifle trauma, including rupture of cruciate and collateral ligaments is a frequent finding in working dogs if they get tangled in a fence.

We have vets who are very experienced at dealing with these types of surgical stifle injuries and a number of different surgical techniques may be applied depending on the individual case.

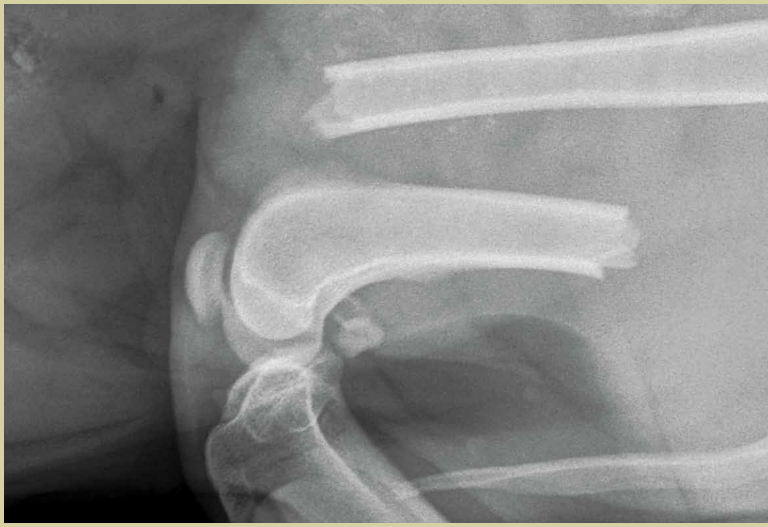
Another common soft tissue injury requiring surgery is rupture of the Achilles tendon. Typically this occurs in athletic high speed heading dog types!
Affected dogs have a diagnostic stance with the hock dropped low. Good results may be achieved in these cases with surgical correction of the torn tendon. A bone screw is usually applied to keep the hock in extension while the tendon heals. In humans an adjustable boot is used for the same purpose.

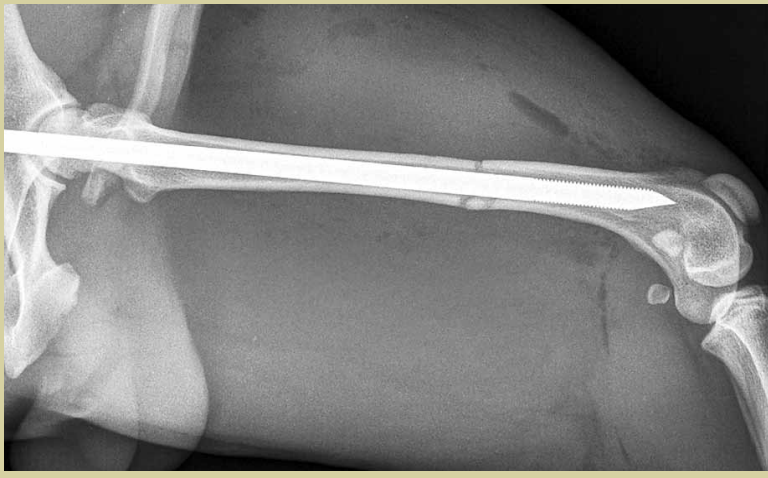
Fractures are common and whilst some are amenable to external fixation such as casts and splints in most cases we use internal fixation in the form of bone plates or pins.

Bone plates – these are specialized stainless steel plates which are used to stabilise fractures in long bones. In the example below an unstable fracture of the distal radius and ulna is present.



**These x rays show the bones before and after stabilisation. Typically these plates are left in place once the bones have healed. We have state of the art pneumatic drills and equipment designed for use with bone plates.**





**Bone pins – in this case a displaced mid shaft fracture of the femur has been aligned and stabilised using a "Steinman" pin. This pin will be removed once the bone has healed – usually at around two to three months.**

**Vet Services Hawke's Bay have a brand new website, to keep you up to date with the latest news www.vshb.co.nz**

# SEASONAL UPDATE

## HASTINGS/NAPIER

**HELEN TAYLOR**

Things are starting to look grim in places – rainfall has been so unpredictable and localised that some places have had nothing for months now with a lot of country looking very grey. We've had some belter frost too, so things are unlikely to improve from here for a while. If you have concerns about the winter feed situation, please come and talk to us. We can run you through what you need to maintain your cattle and what your in lamb ewes require to make sure there are in calf cows next year and lambs worth selling come springtime. Once you have made some decisions and have a plan, most farmers find the stress levels drop significantly, as no matter what happens, they know they will get through and any growth that does occur is all just a bonus.

The deer are scanning well and seem to be rather feisty this season. They were all in tip top condition at mating and are now starting to harden off with the dry Autumn – I think all of the deer scanning vets are sporting some fine bruising already so maybe the hinds are just "hangry"!. There have been a lot of horses with colic to keep us busy in the evening and at weekends – again we suspect that low covers are forcing then to graze into the parasite zone and supplementary feeding has been to quickly introduced to allow the gut to adjust. It's the same rule with all species – slow and steady introduction of new feed types over a 10-14 day period.

We said farewell to Fiona, our much loved and relied upon large animal technician – Fi has moved to the South Island with her partner and was very excited to be starting a new adventure. We will certainly miss her "can do" attitude and the amazing speed at which she could test grass samples for Facial Eczema spores, poo samples for worms and teat seal those heifers. Good Luck Fi.

## WAIPUKURAU

**MICHAEL CATLEY**

Unseasonably dry and warm weather followed by a frosty start to June has made a grim start to winter for some. A low level of rain has come through and has greened up low covers but growth is needed before winter really sets in to ease some stress.

Sheep and deer scanning is well underway and numbers are better than some were expecting, considering the effects of facial eczema. Nitrates are a high risk with frosts so get your samples in to the clinic. Unfortunately, grain may be a necessity at present and timely use will help to keep the energy going into the ewes.

On a lighter note, the AB's have had a shaky start against the Welsh, but we were happy to see a win to start the series. The Irish getting up on the South African's was a treat, and I'm not sure how I feel about the ENG vs. AUS result (though the Poms might feel slightly better about being knocked out of the pool at the RWC). Keep positive and resilient and who knows what may happen in the following weeks!

## DANNEVIRKE

**JOHNNY ATKINS**

It has been an interesting season thus far, great for some, and not so good for others! The coast has been really dry, and continues to be so. The recent run of cold weather has slowed any growth right down and some areas are looking quite tight for feed. Hopefully ewes will hold condition, remember decisions around management and supplements etc need to have been made yesterday. Lighter condition stock and tighter feed budgets may result in a decreased immunity and so higher parasite challenge. Higher reliance on drenches or other parasite management tools may be required, have a chat to one of us if you are unsure.

Conversely the areas closer to the Ruahines seem to have done well. Most dairy operations should be getting prepared for the upcoming calving period. Make sure calf sheds are cleaned out, gear is ready to go and everyone is up to speed on what they need to do.

Lots of horses have been turned out for the winter. Don't forget all about them! We have been seeing some quite low Selenium levels around the place, do they need supplementing? It's a great time to tidy up any other routine animal health issues that may need looking at as well.

## WAIRARAPA

**KATE SOUTHEY**

We are now experiencing rainfall in the Wairarapa, something that many of our farmers had almost forgotten what that looks like. The mild, warm nights have started to be plagued by bitter cold sharp frosts, and just last week we experienced three good frosts in a row.

Those farmers who were savvy and smart took advantage of the forecasted rain and applied fertiliser just in time. However with the drop in soil temperature we are all holding our fingers and toes crossed in the hope we will gain some grass growth from this.

We held our Farmer Seminar Mid-June & some very relevant points came about here. With pasture covers being very short for this time of year, Ewes are already under pressure so we have recommended that Farmers need to assess their situations seriously.

When assessing your farm's situation for Pre Lamb treatments keep in mind current Ewe body condition, are they scanned in lamb with single, twins OR triplets? What are your main goals ahead? When are you aiming to wean your lambs and what is the target weight for weaning that you are aiming for?

Taking all of this into consideration, come into the clinic or phone us to discuss your options of treatment. Surprisingly it is not a 'One Size fits all' solution. We will take you down the different scenarios; Maybe Capsuling in a tough, tight, high pressure year may suit a certain class of your stock or targeting your scanned in lamb ewe with twins/triplets + a 5 in 1 injection. Or Maybe an LA injection+ a 5 in 1 injection. Or maybe it is as simple as a 5 in 1 injection and an oral treatment.

So a take home message……we are here to work with you as a part of your team. We aim to help save you money where possible and provide solutions and advice that are tailored to your property and stock.

**Congratulations to Harry Whiteside who was awarded 2016 Sheep and Beef Veterinarian of the year.**

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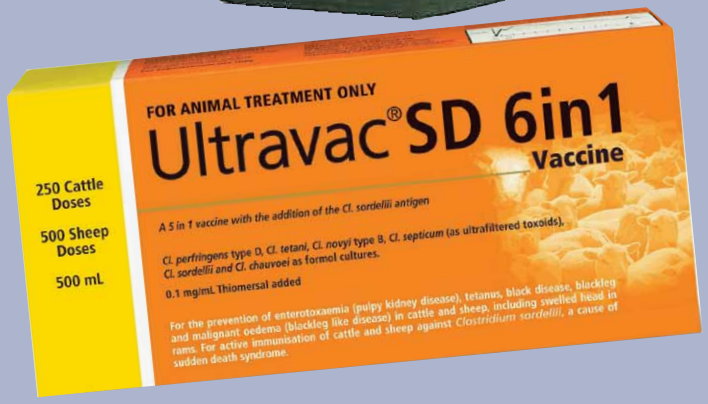



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