TOTALLY VETS™
ANIMAL CARE & EXPERTISE

VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM **SEPTEMBER 2011**

Above: Paul Wiseman presents Ashley Gloyn with his $2500 travel voucher

Travel voucher winner!

Congratulations to Ashley Gloyn and partner Wendy who won a $2500 travel voucher. During the months of May and June this year, all purchases of qualifying Merial Ancare products went into the draw to win this awesome prize.

Ashley lambs 300 ewes on his 150-acre Rongotea property. Lambing and docking was over by the end of August so hopefully he and Wendy can take full advantage of their win. To our knowledge, they have no immediate travel plans. We wish them a fantastic holiday.

Lepto - still number 1!

Paul Wiseman

Given the high profile leptospirosis is currently getting, especially from work being done at Massey, a national standard such as provided by Leptosure® becomes increasingly important and needed. The investigations of two recent outbreaks of disease in dairy farmers with supposedly 'vaccinated' herds (one outbreak mentioned below) further adds to this need.

Leptospirosis continues to be the most commonly acquired occupational disease in New Zealand. For 2010, there were 81 reported cases of leptospirosis in humans; 56% of these were in farmers or farm workers, 19% were in meat-processing workers. *Ballum* is now the most common serovar reported.

The Department of Labour recently investigated a case of a farmer and his two farm workers who contracted leptospirosis (*L. borgpetersenii sv hardjo*) in spring 2010. The 'preventative control programme' was an annual single shot of lepto vaccine of adult stock. No vaccination of young stock was carried out. The vaccination status of bought-in stock was not known. The farmer escaped prosecution but was required to put a leptospirosis control programme in place and to speak at a public forum about leptospirosis and the responsibilities of employers. The farmer has incurred a considerable cost in a blanket antibiotic treatment of the herd and is now instigating a total herd vaccination programme. This case highlights the need for correct advice about, and the monitoring of, vaccination programmes.

The Department of Labour advises that having a control programme, such as Leptosure®, would be a mitigating factor in any investigation of human cases arising from dairy farms.

While cattle and sheep have long been recognised as sentinel carriers of lepto, there is growing evidence that sheep and deer carry lepto and may suffer lamb and weaner losses. Affected animals, including wildlife, are often 'silent' shedders.

The message is clear - vaccination alone is not enough to stamp out leptospirosis. Implemented correctly, Leptosure® reduces the risk to herd owners, workers and their families of contracting lepto.

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Totally Vets current stock health

Dairy

In the last couple of years, some suppliers have been importing 65% strength magnesium oxide (39% Mg) and claiming that it is just as effective as normal strength product. With magnesium oxide, the 'industry standard' is minimum 90% MgO (54% Mg). The weaker product is OK as long as you use more to compensate for lower elemental content.

Before plunging in and treating those high somatic cell count cows from the first herd test, assess your risk, likely response to treatment and what other options might be available to you. Our new data management software, Infovet, can be hugely helpful in assessing mastitis issues.

Fertility testing of herd bulls used for natural mating is simply commonsense. Bull failure

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HA HA

Country boy

When you're from the country, your perception is a little bit different.

A Gisborne farmer drove to a neighbour's farmhouse in his ute, and knocked at the door. A boy, about 9, opened the door.

"Is your Dad or your mum home?" said the farmer.

"No, they went to town."

"How about your brother, Howard? Is he here?"

"No, he went with Mum and Dad."

The farmer stood there for a few minutes, shifting from one foot to the other, and mumbling to himself.

"I know where all the tools are, if you want to borrow one, or I can give dad a message."

"Well," said the farmer uncomfortably, "I really wanted to talk to your Dad. It's about your brother Howard getting my daughter Susie pregnant."

The boy thought for a moment ..."You would have to talk to Dad about that. I know he charges $500 for the bull and $50 for the pig, but I don't know how much he charges for Howard."

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Feeding the orphan lamb

Leisa Norris

For survival and lifetime wellbeing, lambs need colostrum in the first 6-12 hours. Colostrum provides antibodies to protect against disease and is nutritionally rich in energy. Four to six feeds of 100 to 200ml per feed is a good start and if possible, continue feeding colostrum for three to four days.

The ewes' colostrum is best. Alternatives include frozen colostrum saved from a ewe with a single lamb, colostrum from a goat or cow, or artificial colostrum. Frozen colostrum should be heated in a water bath. Avoid the microwave as it destroys the precious antibodies so vital to the lamb.

After the colostrum-feeding period, use a lamb milk replacer, such as Denkavit or Anlamb, fed at approximately 40°C. There is no set 'recipe' for feeding as each lamb is an individual. A general guide is:

Age of lamb	Feed type	Volume (ml)	Frequency (feeds per day)
First 4 days	Colostrum	100-200	4- 6
Week 1	Milk replacer	200-300	3 -4
Week 2	Milk replacer	300	3
Week 3 - 6	Milk replacer	400-600	2

Hungry lambs are often hunched up and will 'cry'. As the lamb gets older, gradually increase the volume and decrease the number of feeds per day. Over-feeding is likely to induce scours.

There are commercially available bottles and teats, some more user-friendly and durable than others! Baby bottles and teats work well, as do soft drink bottles with lamb teats. A lamb will learn very quickly where its food is coming from and will adapt to bottle-feeding without a problem.

Encourage lambs to eat grass, sheep nuts, hay etc as young as possible. Early weaning reduces time spent feeding. As long as the lamb is growing well and eating more than 75% of the diet as solids, then weaning at around 6-8 weeks old is fine.

cannot be repaired once it has happened. Book your bull fertility testing in ASAP.

'Dirty' cows fail to get in calf. Checking your herd for uterine infections and treating 'dirty' cows is a straightforward process that pays dividends. Book in your Metrichecking now.

Sheep & Beef

Our September-lambing farms are quite likely set up for a bad year for bearings. The major known risks for bearings are an increase in body condition in the first trimester (tick), more than one lamb (tick), and grazing hill paddocks (tick!). There are no well proven ways of reducing the incidence of bearings, but things you could try are: keeping ewes on rotation right up to lambing, with afternoon shifts (keeps them up on their feet for more of the day), making salt available to ewes (especially if you know your soil potash levels are high) and supplementation with vitamin D (which may improve calcium metabolism). None of these are scientifically proven.

Add acidophilus yoghurt to milk for hand-reared orphan lambs to prevent gastric bloat and sudden death.

Ensure beef cows are getting a magnesium supplement. Either on hay, dusted on pasture, via the water or use magnesium bullets. Early calving assistance may be the difference between profit and loss. Maintain a careful watch.

Drenching young calves for worms

From the 'what were you thinking' files...

Ginny Dodunski

Every year in the Manawatu a few mobs of artificially-reared calves start scouring, or coughing (maybe at about 5-6 weeks of age), and a 'bush diagnosis' - something along the lines of "Arrrr that be worrrms" - is made by someone with years of experience. So the calves are duly treated for worms; occasionally they may improve, most often nothing happens, and sometimes they drop dead! What the?

Let's get something straight right at the start: **artificially-reared calves living outdoors almost never need treatment for worms (gastrointestinal or lungworm) before they are weaned.**

Why? There are lots of good reasons for this which we'll get to in a minute. The other point that is really important is that **a number of the commonly used drench products are quite toxic in pre-ruminant calves.**

WHY DON'T YOUNG CALVES NEED WORM TREATMENT?

- Worms can't actually establish in the gut until calves have a fully functioning rumen; the process of worm larvae developing through to the adult stage requires rumen fluid as a trigger
- Milk has some anthelmintic activity
- Whilst calves are eating meal and drinking milk they are not likely to be grazing down low enough into the pasture to pick up a production-limiting worm burden
- The ill effects we see from gut worms (scouring and weight loss) are largely a consequence of the calf's own immune response to the 'invading' worms, and very young calves lack the capacity to mount this response; it kicks in later
- Lungworm has a much longer lifecycle than the gut worms and even if a lungworm challenge is present it will rarely have risen to levels that require treatment in the period before weaning - unless weaning is later than normal

AND WHY MIGHT A WORM DRENCH BE TOXIC?

- Two of the common components of calf drench products, abamectin and levamisole (think most of the cheaper injectables and the oral combo drenches) have quite a narrow safety margin in young calves
- Overestimation of calf liveweight can be enough to cause toxicity especially in individuals that are already ill-thrifty or sick with something else
- Giving the poorer ones 'a bit extra because they look like they need it' - more is not always better!
- Using an oral drench (which is designed to go into the rumen) in animals that don't yet have a functioning rumen - in this case the drug goes straight into the abomasum where it may be absorbed much faster and rise to toxic levels in the blood
- Putting the drench in the milk - yes we know it goes on (!) - process is the same as above plus in the 'towed feeder' situation you'll have some individuals drinking more and potentially overdosing on the worm drench

So the take-home message is: ill-thrift, scouring or coughing in artificially-reared calves pre-weaning is probably not worms - get a better diagnosis so you can give the right treatment!

Ewe docking drench

Greta Baynes

The idea of drenching ewes at docking is not a new one despite there being scant evidence that there are productive benefits from it.

One study over twenty years ago found a docking drench given to ewes, followed by integrated control in their lambs after weaning, gave significant growth rate and wool weight advantages in the lambs from treated ewes. However, a 1975 review of 17 studies of ewe drenching both pre- and post-lambing concluded that there was no good evidence to support either practice.

The widespread adoption of pre-lamb treatments with long-acting anthelmintics has seen many farmers move away from drenching ewes at docking. However use of these long-acting products is now at odds with current recommendations around sustainable drench use, at least on a whole flock scale. Current recommendations around drenching ewes promote targeting selective treatments to those ewes who are 'most likely' to respond, for example light ewes rearing twins. However there is no data to support the productivity benefits of such an approach at docking.

In the summer of 2009 we enrolled 550 first cycle, twinning ewes on three farms at docking. These ewes were body-condition scored, dag-scored, faecal sampled and weighed at docking and weaning. Half the 'thin' ewes and half the 'fat' ewes were treated with a full dose of oral triple combination anthelmintic (Matrix™). A Faecal Egg Count (FEC) was done on twenty ewes from each group at each visit. The lambs were identified to their mother's treatment group via different coloured udder spray. The lambs were weighed at both visits.

Ewe condition score change:

- Drenching ewes at docking did not significantly lift the body condition score of ewes at weaning
- Light-condition ewes at docking significantly gained more condition at weaning regardless of being drenched or not (0.25 body-condition score gain) ($P<0.01$)

Ewe dag score and faecal egg count change:

- Dag score at weaning was 20% lower in drenched ewes compared to undrenched ewes ($P<0.001$)
- There was no significant difference between light and good condition ewes in the dag score at weaning
- There was no significant difference between drenched and undrenched ewes in their faecal egg counts at weaning
- Body-condition score at docking had no significant effect on the faecal egg count at weaning

Lamb weaning weight and liveweight gain:

- There was no significant effect of drenching ewes at docking on lamb weaning weight or lamb liveweight gain

Drenching ewes at docking will reduce the level of dags on ewes at weaning, but it will not increase the body-condition score of the ewes at weaning or give any liveweight gain benefit to the lambs.

Chat to us if you are considering drenching your ewes. There are many facets that influence the effect of a drench and we want to ensure you choose the best option.

What's the goss?

We have lots of people back from their holidays this month. **Selena** spent a relaxing seven days in Melbourne - shopping, eating, drinking and sightseeing. She went to the Yarra Valley, spending time in the vineyards there, drove the Great Ocean Road and visited the Dandenongs. She also dropped into the Casino but didn't win anything!

Katie, husband **Rhys** and their three girls **Charlotte, Emily** and **Juliet** are back from England where they spent time with family in Worksop, Nottinghamshire. They also took in the sights of London and visited Creswell Crags, a limestone gorge honeycombed with caves and home of the Ice Age Hunter. They all had to wear hard hats with torches to see the cave drawings. Katie's girls were told about how small children were made to crawl into caves to make sure there were no bears before they moved in! They also stopped off in Dubai on their way home where they stayed in an apartment in the tallest building in the world, the Burj Khalifa, which is over 160 floors high (828m) and swam in an outdoor pool on the 76th floor - the mind boggles!

What really matters?

Greg Smith

What really matters when it comes to fertility? The collective efforts of the dairy industry have identified that in seasonal calving herds, the 6-week in-calf rate is as important as the final empty rate to assess reproductive performance.

The main drivers of the 6-week in-calf rate are the 3-week submission rate (SR) and conception rate. The target submission rates are 90% by three weeks and 95% by six weeks. The major influences on SR are the number of non-cycling cows and heat detection. The non-cycling rate at the start of calving limits 6-week in-calf rate and **the target is 15% or less.**

Non-cycler rates are affected most significantly by body condition at calving and weight loss after calving. Both are affected significantly by management decisions such as drying-off dates and feed budgeting and so have implications beyond herd fertility. In terms of monitoring where the herd sits during the year, regular body-condition scoring (BCS) is an objective way to check progress. The times to BCS are pre-calving, pre-mating, after mating and at drying-off. This information is used to plan feed budgets.

Calving pattern is both an influence and a consequence of mating success. Late-calving cows are more likely to be non-cycling and have lower conception rates during AI. Extending mating to lower empty rates spreads the calving pattern which has a negative impact on the subsequent mating. This highlights the need to achieve good in-calf rates early in the mating period.

HEAT DETECTION

A missed heat is a loss worth about $200. Heat detection is worth doing well! Mating activities should be the responsibility of experienced staff, particularly heat detection. If experience is an issue, then invest time in training staff either yourself or with our help.

HEAT DETECTION AIDS

Tail paint - apply early (32 days before planned start of mating) to detect pre-mating heats. Paint is best applied as a 20cm by 5cm strip from the base of the tail and forward. The hair should be well covered but not so thick that hair fibres cannot be identified. Tail paint should be touched up at least weekly.

Heat mount detectors - improve detection rates. They are increasingly popular and are now more user-friendly than ever.

CONCEPTION RATE (CR)

The influences on CR are more difficult to quantify. We know that cow health, in particular the presence of endometritis, has a significant negative impact. Identifying and treating endometritis was discussed in August's VetNotes. Suffice to say it should be dealt with in the lead-up to mating.

We also know that the first heat after calving has a low CR of around 35%. The CR for subsequent heats rises quickly towards a normal rate of around 60%, so the number of cows having their first heat during the first or second round of mating will therefore lower the overall CR.

All of the effects already discussed such as body condition, calving pattern, non-cyclers and heat detection are therefore likely to influence CR and improvements in all these areas will lead to better outcomes overall.

BULL MATING

Sufficient numbers and a healthy bull team are obvious requirements. The rule of thumb for bull numbers is 3% of the number of cows to be mated plus one (the plus one is to make sure there is always more than one bull with the herd at all times). The number of cows refers to the number that are not in-calf at the end of AI. For a 6-week AI period this is typically 35-40% of the herd.

Health requirements are bulls that are tested for and vaccinated against BVD, have had a fertility test, have no history of illness within two months of the start of mating and are not lame.

Totally Vets currently tests a large number of beef bulls and can efficiently test dairy bulls for semen quality and assess serving ability at the same time.

Paul and **Sue** are back from their fantastic holiday in the UK, where they caught up with their son and daughter and grandchildren Bella and Liberty. Much time was spent with **Poppa** throwing the girls around in the pool followed by "again, Poppa".

The girls at the Feilding branch have started up their own Zumba® sessions on a Friday night. Zumba® is described as "an exhilarating, effective, easy-to-follow, Latin-inspired, calorie-burning dance fitness-party that's moving millions of people toward joy and health". It would appear that with the drinks that follow the sessions, the only words that ring true are exhilarating, Latin-inspired and joy!

Finally, if you are looking for a cat to rehome, **Greta's** gorgeous cat Kamo is looking for a new home - she is not happy with Greta's new multi-cat household. Kamo is a 4 year-old, domestic short-haired silver tabby and extremely cuddly. If you are interested or would like more information you can contact Greta directly on **gretab@totallyvets.co.nz**.

Managing Johne's disease in deer

Hamish Pike

Johne's disease (JD) is an intestinal disease causing progressive weight loss, sometimes with scouring, leading to emaciation and eventual death.

Johne's disease affects any age of deer from weaning through to adulthood. Unlike Johne's disease in other species, young deer may suffer severe disease which is rapid in onset (up to 25% losses) whereas in adult deer, cases tend to be more sporadic and slowly progressive. The latter is more typical of the disease in cattle, sheep and goats.

Johne's disease is an emerging threat to the New Zealand deer industry. It is estimated that approximately 62% of New Zealand deer farms are infected.

Financial losses on individual farms can be very high. For example, it has been estimated that a deer farm with 1000 hinds, and a medium prevalence of JD, could be expected to lose $35,000 per annum. This estimate takes into account deaths in young deer (8% prevalence), deaths in adults (2% prevalence), detained and downgraded carcasses at deer slaughter premises and tuberculosis-testing losses. Johne's disease can cause false test positive reactions at the time of reading a TB test and can also show lesions similar to TB at post-mortem examination.

Additional costs may be associated with slower weaner growth rates, poor reproductive performance in infected hinds, lighter weaners, reduced velvet productivity, farmer's time and veterinary/laboratory costs for diagnosis and control.

The first step in control of the disease on an individual farm is to determine your herd status. The Johne's research group defines a herd's status as either low risk, confirmed infected or unconfirmed. Totally Vets can help you to establish an appropriate cost-effective testing programme.

1. A low-risk herd means JD has not been diagnosed on or off the farm (at deer slaughter premises). For these herds, it is important to put measures in place to prevent the introduction of JD.
2. Confirmed infected herds will require control procedures to be put in place. It is important to get a handle on how prevalent JD is in these herds before an effective control programme can be established. This is based on historical evidence of JD, TB-testing results and any carcass lesions. A control programme is likely to involve culling of infected animals, identifying and culling sub-clinically infected deer and managing other farm species (like cattle, sheep, goats, alpaca, llama and wildlife) which may also be shedding the bacteria.
3. Unconfirmed status means that the herd has not had an appropriate testing programme.

Once your herd status has been established, then a programme for your farm can be tailored to either keep JD out, or where already established, minimise infection. These programmes may require ongoing status monitoring (e.g. once a year where JD is of significant concern).

Please contact Totally Vets for more information about prevention and control of Johne's disease.

Fitness for transport compliance

Paul Wiseman

In two recent instances, lame and arthritic cows have been transported long distances, bypassing closer slaughter premises and despite written instruction to the contrary. A veterinary declaration confirming fitness for transport had been issued. The guidelines state that the duration of the journey should be the shortest possible.

Firstly, some certificates do not stipulate how far an animal should be transported. That stipulation should be written on the certificate. 'The nearest works' may be open to interpretation, whereas "transport to XYZ premise" or "transport 50km maximum distance" is more specific.

Secondly, stipulations written on the certificate are being disregarded. While the vet cannot be responsible for the subsequent actions of the client or agent, they do need to clearly convey to the client that there are conditions associated with the certificate that need to be complied with. The conditions are to safeguard the welfare of the animal. Farmers and transporters not complying would be liable if the animal suffers unnecessarily because of the transport.

There's money in condition-scoring

Paul Wiseman

FACT OR FICTION

The condition score (CS) of a cow before or after she goes onto a break of feed will be the same. Condition score measures fat under the skin as well as muscle mass, not gut fill! If you can see or feel the hollows around the tap-shaped pin bone the cow is CS 4 or below.

The tap-shaped pin bone is not influenced by gut fill. If the knobs on the tap are prominent and there are 'dimples' between them, the CS is 4 or less.

Weighing may be more accurate than CS but you can still have a big skinny cow that weighs the same as a little fat one. CS and weight together may be the ideal measure. Condition scoring is a much easier than weighing.

Friends and people who don't want to upset you tend to give a CS of 4.5 when asked. Changes in CS can be difficult to pick up when you see cows everyday. Scoring to ½ a CS is accurate enough for most management decisions. A CS ending in any number other than 0 or 5 is most likely an average of several animals.

WHAT'S THE PRICE OF GETTING CS WRONG?

Being too generous with your scores can lead to some serious consequences. Any or all of which can happen alone or together.

- Milking on too long at the end of lactation
- Failing to feed cows to achieve a CS of 5-5.5 at calving
- Failing to reach 'peak' production expectations
- Running out of feed, supplements and/or time
- More problems and work at calving
- More non-cyclers at the mating start
- Later calving next season

It takes 3-4 weeks of fully feeding on high-quality feed to gain one CS and is rarely achieved. Milking cows can't eat enough and dry cows don't get offered enough. Milk on only if you have feed. Cows not reaching calving target CS will not have body reserves to call upon from calving to peak. They will produce less than expected and this production loss is for the whole season.

In terms of milk production, increasing CS at calving from 3 to 4 gives an extra 17.5kgMS for the season; from 3.5 to 4.5 an extra 15kgMS; and from 4 to 5 an extra 12kgMS. Eighteen percent of cows in CS 4 at calving will not be cycling at the start of mating while less than 10% will be non-cyclers if the cows calve in CS 5.

Low CS at calving leads to more work! Thinner cows create more problems. We see more metabolic diseases, greater production losses, more deaths, more retained membranes, more calf deaths, slower returns to heat and later-calving cows which all add up to significant financial losses.

WHAT YOU CAN DO ABOUT IT?

Regular measurement of CS allows close monitoring of trends through the year. Your results can be compared with Dairy NZ's optimal average herd line to see how you are going. Any individuals lagging behind can be singled out for preferential management.

By feeding your CS data into Infovet, Totally Vets can present your CS information graphically and trends can be monitored. Since Infovet is a software package that allows collaboration between milk producers, herd improvement organisations and our own veterinary software, your CS data can be used to recognise problems and measure responses to any actions that you may implement.

Identifying and recognising CS trends can be used to prompt pasture and fertiliser management, trace elements and minerals, supplement purchases and farm finances.

The monetary and lifestyle gains from changes implemented to address condition score are well worth the cost of money spent on independent monthly or strategic condition-scoring. Include condition-scoring as one of the tools for a successful mating.

Chronic copper toxicity

Paul Wiseman

Are you seeing cows 'going down' or dying suddenly? They may look like a metabolic problem or nitrate poisoning. The cows are tending to fall over when stressed - e.g. a feed change. Calving would obviously be a high-risk event. In some instances cows 'going down' may follow copper treatment.

These cows may have accumulated too much copper from mineral supplementation and often feed supplements such as tapioca/palm kernel. On a dry matter basis, palm kernel has up to double the copper of pasture. Animal health labs have reported a number of chronic copper toxicities in the North Island in the last few weeks and they are worried it may be a large problem.

If you have not had an autumn liver test for copper or even blood tests around calving, it would pay to arrange for some if you thought there is a risk of chronic copper poisoning. Dead cows can also be tested for high copper levels.

Rumensin

Increased energy available to the cow:

- Increased milk production
- Aid in the control of ketosis
- Increased rate of weight gain and promotes earlier onset of oestrus in replacement heifers
- Aid in the reduction of bloat
- Coccidiosis prevention

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Revive

Syrup and Powder

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Prolaject B12 2000
Plus Selenium

Treats and controls cobalt (Vit B12) and selenium deficiencies to stimulate growth rates

Aid recovery from facial eczema

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