TOTALLY VETS ANIMAL CARE & EXPERTISE

VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

DECEMBER 2014
JANUARY 2015

Holiday hours

	FDG	AWA	TAU
Mon 22 Dec	8 - 6	8 - 5	8 - 5
Tue 23 Dec	8 - 7	8 - 5	8 - 5
Wed 24 Dec	8 - 5	8 - 5	8 - 5
Thu 25 Dec	Closed	Closed	Closed
Fri 26 Dec	Closed	Closed	Closed
Sat 27 Dec	9 - 2	Closed	9 - 12
Sun 28 Dec	Closed	Closed	Closed
Mon 29 Dec	8 - 5	8 - 5	8 - 5
Tue 30 Dec	8 - 5	8 - 5	8 - 5
Wed 31 Dec	8 - 5	8 - 5	8 - 5
Thu 01 Jan	Closed	Closed	Closed
Fri 02 Jan	Closed	Closed	Closed
Sat 03 Jan	9 - 2	Closed	9 - 12
Sun 04 Jan	Closed	Closed	Closed

Normal hours resume on
Monday 5 January 2015

Please note we have a 24-hour emergency service if required:

Feilding 06 323 6161
Awapuni 06 356 5011
Taumarunui 07 895 8899

Zoonoses

Mark Eames

A "zoonosis" (plural being "zoonoses") is a disease communicable from animals to humans under natural conditions. Because of the risk of zoonoses, people working with or handling animals need to know about such diseases and the precautions they must take to minimise the risk of infection.

Leptospirosis or "lepto", is the most well-known zoonosis in New Zealand (NZ) agriculture and one of the most widespread occupationally acquired zoonoses in the world. NZ has one of the highest rates of developed countries and, despite years of vaccination in cattle, there are still around 100 lepto cases (60% of which require hospitalisation) reported each year. Perhaps because 30% of dairy herds in NZ have cows passing lepto in their urine - even in vaccinated herds! It is estimated that the number of unreported or undiagnosed cases are actually 40-50 times higher. Farmers account for around 70% of human cases, and vets are high on the risk scale too!

Cryptosporidiosis is the second most common cause of calf scours in NZ and is transmitted to humans by direct contact with animal faeces, or contamination of water or food. Good sanitation and hygiene are essential when handling calves.

Campylobacter exists in the gastro-intestinal tract of ruminants, poultry and other domestic animals and causes them no harm. These animals act as reservoirs and are ultimate sources for most human infections. Humans are infected via the oral route, with the infective dose being relatively low. It causes diarrhoea with abdominal cramps.

Salmonellosis in humans is a gastro-intestinal infection associated with eating food contaminated with infected faeces. There are more than 2,200 types of Salmonella, some of which cause disease in calves and mature cattle, though many animals may carry Salmonella and show no signs. Salmonella can multiply in many food products kept at room temperature. Therefore salmonellosis is often a food-transmitted disease in many animals, including man. It is not primarily a zoonosis associated with direct animal contact.

Ringworm is a fungal infection, common in cattle, and easily transmitted to humans. Practice good hygiene when working with ringworm infected stock. Cats, dogs, horses, sheep and rodents are also susceptible and possible sources of human infection.

Farmers and vets, as well as other people having close contact with animals, need to be vigilant with cleanliness, hygiene and, in the case of lepto, vaccination programs, in order to protect ourselves and those around us from these potentially debilitating diseases.

Totally Vets current stock health

Dairy

It's been a good spring, and in general cows have cycled well. However challenges with lameness, the tick-borne disease Theileriosis, and some young stock ill-thrift have been evident. Many farms have also struggled to maintain pasture quality with the rapid growth.

Monitor your bulk milk somatic cell count. Keep the teat-spray going and use your herd test information for early dry-off decisions.

Planning for facial eczema (FE) prevention should be considered now (see FE article on page seven).

HA HA

How the other half thinks...

A farmer and his wife were shopping at their local supermarket. The farmer picked up a case of beer and put it in their trolley.

"What do you think you're doing?" asked the wife.

"They're on sale, it's only $20 for 24 cans!" he replied.

"Put them back, we can't afford them" demanded the wife, and they carried on shopping.

A few aisles further on the wife picked up a $40 jar of face cream and put it in the trolley.

"What do you think you're doing?" asked the farmer.

"It's my face cream. It makes me look beautiful" replied the wife.

The farmer retorted "so does a case of beer and it's half the price!"

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.

FSC CERTIFIED — CERTIFIED MIXED PULP
WOOD FIBRE FROM SUSTAINABLE FOREST
ECF ELEMENTAL — CHLORINE FREE
ISO — ISO 14001 CERTIFIED
pH NEUTRAL — ARCHIVAL

Early PDs... as easy as!

Greg Smith

The process is simple. The whole herd is tested six to seven weeks after the end of artificial insemination (AI) with all pregnancies aged to provide accurate conception (and calving) dates for cows pregnant to AI.

The empty cows are then re-tested six to seven weeks after the bull removal date to identify the successfully bull mated cows and their conception/calving dates. That is two test dates about six weeks apart assuming a ten week mating.

As discussed in the November newsletter the benefits are:

1. **Improved drying-off decisions**
   - Late cows can be milked for longer.
   - Cows can be dried-off according to BCS in time for calving. Table 1 (below) is a guide for the length of the dry period required relative to BCS in later lactation to achieve target BCS.
2. **Identify which cows to send away for grazing and for how long.**
3. **Early culling of empty cows if feed resources are stretched.**
4. **Allocation of cows to the springer mob next season.**
5. **Check for pregnancy loss in early lactation** (is BVD or other disease reducing reproductive performance?).
6. **Accurate calculation of six week in-calf rate via Fertility Focus Report (FFR).**

   Key areas to concentrate on can be identified. The economic benefit of improving are as follows:
   - Reducing empty rate from 15% to 11% is worth an extra $12,000.
   - Improving 6 week in-calf rate from 65% to 70% is worth $6,000.
   - The effects are additive so combined the improvements are worth $18,000 in extra operating profit!.

Now is a good time to book in your first pregnancy test date to ensure timing is optimal, so call the clinic today!

TABLE 1	Mixed age cow		R3 cow		
BCS	BCS gain required	Dry period (days)	BCS	BCS gain required	Dry period (days)
3.0	2.0	120	3.0	2.5	140
3.5	1.5	100	3.5	2.0	120
4.0	1.0	80	4.0	1.5	100
4.5	0.5	60	4.5	1.0	80
5.0	0.0	60	5.0	0.5	60

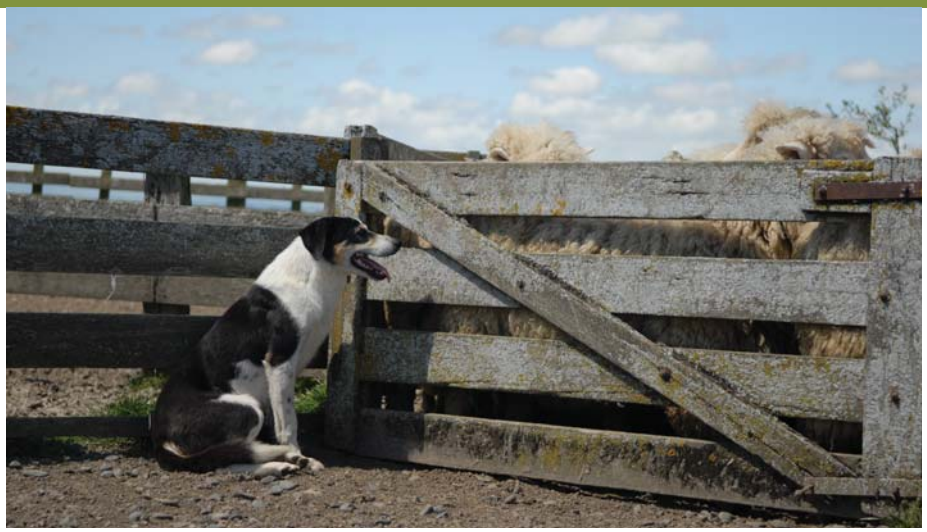
Sheep and Beef

A hangover from the summer and autumn dry spells is that there is considerable variation in ewe condition and pasture covers, especially in the hill country. Wean thin ewes early, especially the younger age groups. Get them gaining weight now - in case the dry bites again. To avoid becoming trapped in an annual cycle of declining ewe condition and performance, start planning your strategies now for protecting performance if the summer rain doesn't come.

A triple combination is the lamb drench of choice especially if you don't know your drench resistance status. 2014 is the year to do your faecal egg count reduction test (FECRT) if you haven't done yet! (See FECRT article on page six). An exit drench is required for ewes or lambing hoggets given a long-acting treatment pre-lamb - talk to us about timing of this. You need to use the most highly effective drench you can but this will vary depending on your drench resistance status, so again, talk to your friendly sheep vet!

Deer

Velveting so far is going well with some good yields. Keep an eye out for ticks as we head into summer and be sure to monitor hinds due to fawn and have a plan to provide good levels of nutrition during this period.



Working dog healthcare reminder

Helen Sheard

As we count down to Christmas we thought an end of year "healthcare reminder" for your working dog(s), perhaps the most loyal of all farm workers, would be timely!

Summer brings the bane of Beardies' lives, primarily the notorious barley grass seed. Mostly seen between the toes and in the ears, they can get in anywhere (barley grass, not Beardies, though that's debatable!), and any small weeping wound anywhere on the body can potentially be due to barley grass. There have been reports of seeds migrating into internal organs and into the spinal cord - quite rare, but still a possibility.

While on the subject of wounds, large skin wounds can be par for the course for working dogs, with lacerations from fences, sticks, and stock-induced injuries, all being common. Once a flap of skin is hanging loose, both the flap and the area it came from are prone to contamination and drying out. Consequently first aid out in the field greatly increases the chances of the wound healing well. A few basic tips to note:

- Gently wash the wound with clean water if there is obvious dirt there, however jumping in a dirty trough is NOT a good idea!
- Cover the wound with a clean shirt or anything you have on hand.
- Do NOT let them run home as contamination with seed heads and dirt means the wound takes longer to clean, which also means longer anaesthetic time, and higher risk of infection.

Feeding is a biggie! Guidelines on bags of food are simply that - guidelines. They are designed for the 'average' dog, so don't feel you have to stick to it. It is better to feed to body condition, although there is still debate as to what the ideal body condition score (BCS) is for a working dog, the ideal is likely to be between BCS of 3.5-4. This means:

- Ribs can perhaps be seen and are easily felt.
- Waist (area of abdomen behind ribs) can be seen from above and side.
- Abdomen appears "tucked up" when viewed from side.

If you have a slow afternoon (or can't sleep one night!) the formula below can be used to work out how many kilocalories (kcal) individual dogs need when working at different levels. Most foods should have a kcal content per gram or per cup, so you can work out an individual's requirement:

Kcal requirement per day = k x (bodyweight in kg)$^{0.67}$

The value of k depends on the level of work:

For light work k = 132

For moderate work k = 160

For heavy work k = 300

For example, for a 30kg huntaway in heavy work, kcal required = 300 x 30$^{0.67}$= 2929 kcal per day. If you are feeding a relatively low calorie food, this could equal a huge amount of food, which can increase risk of twisted stomach if the dog can physically eat it all. More calorie dense foods can provide this level of kcal without having to feed half a bag each time!

Love thy neighbour

Hamish Pike

There are many infectious sheep and cattle diseases which challenge the performance, or threaten the lives, of sheep and cattle (in fact potentially any animal!) within a flock or herd.

Most of these diseases can be controlled through various means like preventative treatment, test and slaughter and/or vaccination. Diseases like Bovine Virus Diarrhoea (BVD), Johne's disease, Tuberculosis (TB), *Brucella ovis*, Salmonella, and more recently the tick-bourne disease, *Theileria orientalis* (Ikeda), can have large impacts on animals within a property.

Many of you have had first-hand experience with some of these diseases and know what impacts they can have. Neighbours are often unaware of what is happening over the fence and/or alternatively they are not disclosing to you what is happening on their own property.

There is much to consider when you have an infectious disease diagnosed on your property. Four key points are:

1. **What impact will this disease have on my property?**
   - Can vary, depending on type of disease and severity, from stock decreased growth weights and production, to movement controls and even stock deaths.
2. **How can I control and contain the disease on my property?**
   - Variable and specific to each situation.
3. **What impact will this disease have on my neighbour's property if their animals contract the disease?**
   - Infectious diseases in some instances may have little impact on your operation but may have an enormous impact on the neighbour who, for example, has stud ram hoggets or bulls for sale, has dairy graziers, or has heifers destined to go on a boat to China.
4. **How can I prevent the disease from coming back on to my property in the future?**
   - Vaccination, pre-entry testing or closed-herd systems are all ways of reducing the risks of introduction of a disease. Majority of disease outbreaks are most likely a consequence of introduction of infected animals onto a property rather than having contracted the disease from the neighbour.
   - "Over the fence" transmission of disease should always be considered a possible way of a disease gaining entry onto a farm.

Next time you are faced with a disease outbreak on your farm, consider your neighbour and the impact that it may have on their property. Communicate with them to create an awareness of the disease. Use your vet to help create that awareness (in confidence). This will lead to action in most circumstances.

If you are facing a challenging situation don't hesitate to contact your Totally Vets veterinarian for advice and support.

Logan Paddison receiving his prize at school assembly.

Gossip

The winner of the Totally Vets Calendar competition is **Logan Paddison**, from Russell Street School, Palmerston North, with his picture "Inquisitive Cows". Logan won a Panasonic Lumix camera for himself and $200 for his school.

Coming in second was **Ruby Waho**, from St Patrick's Catholic School, Taumarunui, with her picture "Best Friends". Third went to **Lauren Read**, from Oroua Downs School with her picture "Happy brown babies sleeping by the hay".

Thank you to all the children who sent in pictures, you made it very hard to choose our top 13. We look forward to receiving your entries next year. Totally Vets clients are welcome to collect a copy of the calendar from your closest branch.

Preventing sheep abortion

Hamish Pike

In New Zealand (NZ), studies have shown that *Toxoplasma gondii* is present on 100% of farms. *Campylobacter fetus fetus* is present on 88% of farms throughout NZ (on these farms, only 50% of ewes were found to be immune). Given this, the use of the preventative abortion vaccines, Toxovax® and Campyvax4®, makes good economic sense.

Toxoplasmosis can cause abortion at any time throughout a ewe's pregnancy. Toxovax® needs to be given **before** four weeks prior to tupping (or at least four weeks prior to teaser introduction). Toxovax® only requires one shot for lifetime protection. However, if this years' two-tooths were done as hoggets the previous season, you may want to consider re-vaccinating this group due to stresses (such as feed shortages, parasitism, and viral pneumonia etc) brought about from last summer, leading to poor vaccine responses in this age group. Because Toxovax® is a live vaccine, do not use **within** four weeks prior to tupping (or teaser introduction), as this could cause problems rather than prevent them. It is best to get the vaccination in before the end of February as after this time, kittens are likely to be shedding high numbers of Toxoplasma oocysts.

Although Campyvax4® can be given at ram introduction and then a booster at ram removal (four to eight weeks later) to prevent mid-late pregnancy abortions, it is best to get two shots in prior to ram introduction (or one annual booster pre-tup) in order to prevent possible early embryonic losses. These early losses are however less common than the usual abortion storms seen in the final six weeks of pregnancy. An annual booster of mixed-aged ewes and hoggets is advised, especially if this years' two-tooths were done as hoggets the previous season.

Given that Toxovax® can be administered at any time (except within four weeks of tupping or teaser introduction), it is recommended that **Toxovax® and a Campyvax4® sensitiser are given at the same time, and then a Campyvax4® booster given four weeks later, being six and two weeks prior to ram introduction.**

Where disease exists (which is very likely!), using these vaccines will result in a 9% (for Campyvax4®) and a 3% (for Toxovax®) increase in lambs at docking. For a 2000 ewe flock, this equates to 300+ more lambs at docking. This does not take into account the benefits of preventing an abortion storm!

Make sure you order your reproductive vaccines now!

We are looking forward to our **Farmers Christmas BBQs** coming up on the 9th December at Awapuni, 11th December at Feilding, both 4.30-8.30pm, and 12th December at Taumarunui, 12 noon-8pm. It is a great chance to catch up and reflect on the year, so we hope to see you there! Additionally we are hosting a **Christmas Sausage Sizzle** at Feilding on Friday 19th December, for all of our clients to come during the day 11.00am-2.00pm.

Totally Vets is again participating in the **Feilding Christmas Parade**, to be held on Sunday 14th December. Heaps of fun is being had in organising the float and costumes, with lots of staff and their children very excited and looking forward to this great event!

Congratulations to Jackie Short (and dog Cola) and Toni Murdie (and dog Jazz) who won the **Hutchwilco life jacket family pack and D-Fa dog floatation device** valued at over $799. Both Jackie and Toni had purchased Merial Ancare Frontline and Broadline products for their pets from Totally Vets during September.

Toni Murdie with a winning smile, pictured with her vet with Ryan Carr

Why should you test your drenches?

Hamish Pike

With many of you now using double and triple combination drenches, drench testing has unfortunately fallen by the way side.

We are already aware of many farms having drench resistance, and a few farms with resistance even to combination drenches. So assumptions cannot be made that the drenches that you are using are fully effective. I say fully effective because that is what a drench should ideally be, 100% effective.

A study in the New Zealand Veterinary Journal concluded that a 2000 ewe flock was losing $20,000 annually by using a drench that was 90% effective. This loss was attributable to 20% lower lamb growth rates, being 2.8% lighter in the late summer and 14% lower carcass values. This also includes the accumulated cost associated with lowered hogget and later, two-tooth lambing performance.

If a drench is killing 90% of worms in the gut of an animal, the drench will appear to be working. There will be no obvious signs that there is something wrong. Even if a drench is working at 70% efficacy, it is unlikely that there will be any cause for concern - but the subclinical losses (the ones you don't see) will be significant.

Many farms (maybe most) will be using drenches that are not fully effective and there will be continuing weight gain costs. Most farmers have never done a drench test on their farm, and hence they will have no idea whether the drenches that they are using are indeed fully effective.

It is not a good idea to wait until you are actually seeing drench failure (i.e. clinical parasitism) as this would have already incurred a huge production cost. The cost of a drench test is around $1,200-1,400. This cost is insignificant compared to continuing to use a drench that is not fully effective.

A drench test (or faecal egg count reduction test - FECRT) requires you to keep about 100 lambs aside (un-drenched) in the early summer and allow their faecal egg counts (FECs) to rise to a trigger level to start the test. The lambs are broken into groups of 15 and each group is drenched with one of the test drenches. FECs are taken at the start and ten days later, and the difference in FECs is the measure of how effective the drench has been. It is best to test all drench options, including the combinations, because then we can have absolute certainty over which drenches are best to use.

FECRTs are a cost but are a wise (from a production, an animal welfare, and sustainability perspective) and financially sound investment. Give us a call to book a test for this summer!

Pink eye in cattle

Sarah Clarke

Pink eye is a highly contagious disease which causes clouding of the eye, squinting, and excessive eye discharge that often contains pus.

The condition may affect one or both eyes and is very painful, particularly in bright light, causing affected animals to seek shade and avoid direct sunlight. These animals have reduced weight gain, and may even lose weight.

Clouding of the eye surface (cornea) often progresses to corneal ulceration, which causes the eye to be red and inflamed, and pus may accumulate inside the eye. The ulcer usually heals leaving a white scar on the cornea, which may disappear with time or cause a permanent partial blindness. Occasionally, the eye will rupture through the corneal ulcer leaving the animal permanently blind in that eye, and requiring either surgery or euthanasia on welfare grounds.

Pink eye in cattle is caused primarily by the bacterium *Moroxella bovis*, however the severity of each case will vary depending on what other micro-organisms may also be present. This is an important difference from pink eye in sheep, which is caused by Clamydia or Mycoplasma species.

The silent threat

Cormac Chalmers

Facial eczema (FE) is a disease resulting in photosensitization that affects grazing ruminants of all ages.

Under certain weather conditions a fungus, *Pithomyces chartarum*, can grow at the base of pasture. The fungus releases a toxin called sporidesmin that, when digested, is absorbed into the blood stream and causes significant damage to the liver. Due to this the animal is unable to process the photodynamic substance in plants, which then reacts with the sunlight when it contacts the skin to cause severe sun burn. This process takes around two weeks to become evident, by which time the damage to the liver is already done.

FE damage might first appear as a transient diarrhoea or a sudden drop in milk production, if they are dairy cows. The most obvious symptoms of FE are due to photosensitivity which includes restlessness, irritation, reddening and swelling of exposed hairless or non-pigmented skin and, as such, affected animals will seek shade.

Fungal spores are produced when grass minimum temperatures are above 12°C for two or three nights and humidity is high - usually January to May. The fungus grows on soft litter at the base of the pasture. Hard grazing during danger periods increases the risk of spore intake, as does topping which increases the build-up of soft litter.

Regular pasture spore counting, along with keeping an eye on the climate, is the only way to predict the onset of the FE risk period. During the risky season (generally January to May) Totally Vets does weekly spore count monitoring on various sentinel farms that gives an indication of the regional risk, but keep in mind that spore counts can vary immensely from farm to farm, and even paddock to paddock. Spore counts above 20,000/g is the level at which preventative strategies should be put in place. Counts above 40,000/g is the level at which clinical disease may occur, however lower counts are not completely risk free. Young spores are more damaging than older ones so the detection of a rapid increase in spore count is a serious risk. Even long-term ingestion of low levels of spores can lead to facial eczema.

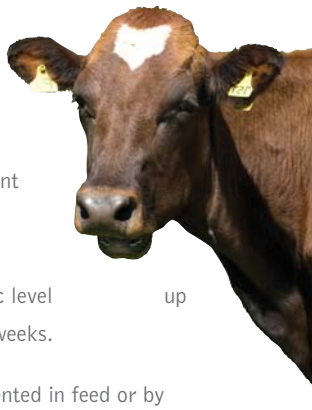
There is no specific treatment for FE, with the primary aims being to relieve pain and to prevent further damage due to photosensitization. Consequently prevention is far better, as cure is not an option! Start FE control early, ideally two to three weeks before the spore growth danger period. The common methods of prevention are:

SLOW-RELEASE CAPSULES

- Best suited for use in sheep, calves and where water treatment is not possible. They provide protection for up to six weeks, longer protection requires repeat (but NO more than three) administrations.

ZINC SUPPLEMENTATION

(toxic in high doses so care is required when calculating dose rates)



- Zinc sulphate in the drinking water through an inline dispenser or header tank. Water treatment is not as effective for sheep as it is for cattle. Build the zinc level up gradually over two weeks.
- Zinc oxide supplemented in feed or by drenching. Milking cattle are best dosed daily but for young and dry stock up to weekly dosing will give good protection.

GRAZING MANAGEMENT

- Predicting and identifying (via spore counting) danger periods and paddocks so as to avoid grazing them where possible.
- Minimise/avoid dead matter - graze paddocks well in spring and early summer and avoid topping paddocks during this time so as to decrease dead matter present in autumn; lower stocking densities, as leaving higher residuals reduces risk of stock grazing down to the pasture base.
- Legumes and plantain are safer than grass.
- Spraying pastures with a fungicide can reduce the growth of FE. Must be applied before spore counts rise.

Options for use of zinc as prevention are many and varied so consult with your vet now to have a plan in place before the FE risk period is upon us!

Flies act as vectors, spreading pink eye infection between animals, and carrier animals are the reservoir of infection. Factors which may predispose pink eye include dust and pollen, UV light, and trauma from grazing in wooded areas. Consequently infection is most common in the summer months, but can occur all year around.

Treatment of pink eye requires the use of antibiotic creams or sub-conjunctival injection. In more severe cases the eyelids may be temporarily sewn together by your vet, to help the cornea heal. Application of an antibiotic spray around the eyes and face may aid in control during outbreak situations, but generally control is based around reducing predisposing factors (such as controlling flies, mustering during the cool of morning/evening to minimise dust etc). Vaccination may be useful in the face of an outbreak, or when a property has significant problems from one year to the next.

Talk to your vet if you are concerned about pink eye in your herd.

Pink eye clinical signs from mild to severe

Don't gamble with your animal health this facial eczema season!

Facial eczema is not curable but it is preventable.
Get in early and insure against facial eczema with Agri-feeds Time Capsule® and Bayer Face-Guard, available from Totally Vets.