

The magazine of Cambridge Vets

treating all animals large and small

December 2015



Yes, I know, we write about this every year! Facial Eczema (FE) is essentially a <u>liver</u> disease of ruminants and alpacas, although the most obvious signs are photosensitivity and peeling skin. As the temperature and humidity climbs over summer and autumn, the fungus *Pithomyces chartarum* sporulates. It particularly likes paddocks with dead matter in the base of the pasture. As they are eaten with the pasture, these spores release the toxin sporidesmin, which damages the bile system of the liver. This has a big impact on growth, milk production and health – the obvious signs are only the tip of the iceberg!



Prevention options include avoiding grazing high risk paddocks with susceptible stock, spraying paddocks with fungicide before the spore counts rise, or using prophylactic zinc. Zinc should only be used for 100 days, and it takes a couple of weeks to protect the liver, so you need to make sure it is started not too early, and not too late, but just right! The best way of doing this is to moni-

tor pasture spore counts, by dropping in grass samples to the clinic. Regional risk levels are published on our facebook page / website, and in the newspapers and online media. Generally zinc is started in January for a February risk. Blood tests will check the zinc levels are protective but not toxic – excess zinc damages the pancreas, causing weight loss and even death. Consider checking soil zinc levels, as we have seen one farm with problems there. Zinc can be provided in water, by drenching, or as a long-acting bolus. Recommended dose rates can be found on our webpage:

<u>www.cambridgevets.co.nz</u> > Farm Animal Information More recently, heritable FE resistance has been pursued. The sheep industry has led the way here, and the dairy bulls are now being assessed for this trait. This is probably the way forward, along with planting pasture with lower risk of FE, such as fescue. Treating affected animals includes offering shade, zinc cream, and vitamin supplementation (vitamin E is a good anti-oxidant).

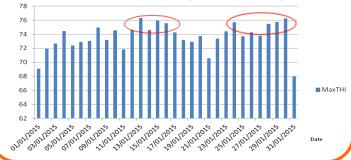


Heat stress occurs when the environmental temperature is greater than the animal can compensate for. With cows this is generally above 25C. Signs include panting, drooling, lethargy, seeking shade, high cow temperature. It can have a negative impact on milk yield, weight gain, feed intake and even fertility. The young embryo is particularly susceptible to high temperatures, which can result in low conception rate or pregnancy loss. As high humidity reduces evaporative cooling and worsens heat stress, the Temperature Humidity Index is often used. It has been shown that the THI is high enough in the Waikato in January to cause enough heat stress to affect fertility.

So what can be done?

- Shade trees in the paddocks, sail cloths in the yard, even herd homes
- Fans in the shed
- Adequate water provision
- Sprinklers in the yard
- If you see a cow showing signs of heat stress (panting, drooling, distressed) the first thing to do is cool her down by pouring or hosing lots of cold water over her.
- LIC have identified the "slick" gene of Senepol cattle which improves resistance to heat stress; we may see this as a breeding value component in the future!

Ruakura Maximum Daily THI for January 2015



www.cambridgevets.co.nz



| | Saturday Dec 19th | 9am - 12:30pm |
|---|--------------------|---------------|
| Clinic Hours for Christmas | Sunday Dec 20th | 9am - 12noon |
| I New Years 15/16 | Monday Dec 21st | 8am - 7pm |
| | Tuesday Dec 22nd | 8am - 7pm |
| Late Night Clinics (8am–7pm Mon-Wed) | Wednesday Dec 23rd | 8am - 7pm |
| will commence: 5th January | Thursday Dec 24th | 8am - 4pm |
| Duty Vets will be available through our | Friday Dec 25th | CLOSED |
| after hours service Ph: (07) 827 7099 or 0800 226 838 FOR EMERGENCY CALLS | Saturday Dec 26th | CLOSED |
| | Sunday Dec 27th | CLOSED |
| | Monday Dec 28th | CLOSED |
| There will be Large Animal Veterinarians on duty at all times. | Tuesday Dec 29th | 8am - 5pm |
| | Wednesday Dec 30th | 8am - 5pm |
| For Small Animal emergencies outside of opening hours, please ring the clinic phone number (07) 827 7099 which will direct you to the appropriate after hours contact. | Thursday Dec 31st | 8am - 4pm |
| | Friday Jan 1st | CLOSED |
| | Saturday Jan 2nd | CLOSED |

Resumption of normal hours (incl. late nights, Saturday & Sunday mornings) from Tuesday the 5th, for your convenience!



Sunday Jan 3rd

Monday Jan 4th

Tuesday Jan 5th

Serving up real quality again this festive season.

Ancare

AVAILABLE FROM YOUR LOCAL VETERINARY CLINIC

WITH QUALIFYING PURCHASES WHILE STOCKS LAST. PROMO ENDS 22

CLOSED

CLOSED

8am - 7pm

NEW ZEALING I W

MANGE IN ALPACAS

Skin disease in alpacas can be due to a variety of different causes; bacteria, fungi, allergies and nutritional problems but by far the most commonly reported skin disease are those caused by ectoparasites - mites and lice. Alpaca are susceptible to 3 common mange mites; Sarcoptes, Chorioptes and Psoroptes and all can be present on the one animal simultaneously. The treatment plan will vary depending on which mites are involved in the problem. Mange in NZ alpacas is more commonly associated with infection by Chorioptes. This condition often presents as a somewhat "itchy" animal with spotty hair loss and if left untreated results in the development of scale, crusts and thickening of the skin. Injectable ivermectin works extremely well against Sarcoptes and Psoroptes (blood sucking mites), which it can reach through the blood vessels in the skin. Injections are generally given fortnightly for 3 treatments. Ivermectin however is much less effective against Chorioptes because this mites stays on the surface of the epidermis feeding on dead skin and dander. In addition, the alpaca has almost no lipid layer/lanolin in its fleece so the traditional topical treatment options are also less effective. For these reasons treatment of Chorioptic mange



can be a real therapeutic challenge. Frontline spray is currently being used in alpacas for the treatment of Chorioptic mange and works by altering the function of the mites nervous system. It will kill the mites it contacts within two hours and will continue to work for up to one month as it slowly wicks out of the sebaceous glands. The affected alpacas will need 4 treatments at 3 weekly intervals.

So how do I know which treatment to give my alpaca? If you suspect your alpaca has mange, skin scrapings with examination with a microscope will allow your vet to differentiate between the 3 mite species & develop an effective treatment plan.

THEILERIA UPDATE

We have seen quite a few cases of Theileria this spring. As always, the most important thing is to recognize it and then minimize stress on those animals. Adult ticks will be visible from now through summer. Remember that animals moving on and off farm pose a risk of spreading it, so consider Bayticol before movement. Even with this though, animals that have had Theileria keep it in their blood and can potentially infect new ticks which can then pass it on to other cattle.

Be particularly cautious about bringing stock onto your property if you have not had it before – ask what the Theileria status of the cattle / farm is, or we can take some blood samples.

Just a recap:

- Theileria is spread by ticks and causes anaemia
- It is common in the Waikato and Northland
- Signs include pale membranes, milk drop, lethargy and rapid breathing
- Treatment centres on management

 reduce stress, OAD milking, keep in nearby paddocks, administer vitamin B, iron, energy drenches and feed supplement.
 Blood transfusion is an option, especially as BPQ now has an 18 month meat WH!
- Peak disease in spring (maximum stress around calving) and autumn
- Ensure overall health and body condition of the herd is good.

Get your name in for our Neil Chesterton lameness seminar March 24th 2016. Details to follow! Just like servicing farm machinery, working dogs require annual check-ups too. This can be combined with their annual booster vaccinations to ensure our four-legged friends are performing at their best.

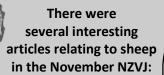


- <u>Have a plan</u> for stock and feed management, with action dates. The dairyNZ website has a fill-in plan you can tailor to your farm.
- Monitor with weekly farm walks and updates in the news or online.
- <u>Manage BCS</u> score the herd and heifers every 4 weeks. Those that are too low should be culled / dried off / go OAD. A cow at BCS 3.0 requires 160d if just on autumn pasture to be ready for calving!
- <u>Consider milking OAD</u>. Be aware this will cause a doubling of the cell count, and an increased risk of mastitis. Cows that go OAD at mid/late lactation are 0.25 of a score better at drying off. It takes about 6 weeks before any difference is noticeable. If the herd go OAD after Christmas, expect a 10% drop in milk yield. Also, don't underfeed OAD cows – they only reduce their feed intake by about 3%!
- <u>Use supplements wisely</u>. Remember to keep 14 days' worth in hand for after it rains, as 50% of the pasture cover will decay, and budget for your winter needs. Do an ME and cost budget for supplement options; rule of thumb is the price in cents per kgDM should be less than 5% of the milk price.
- Look after your pasture graze evenly and avoid overgrazing; leave residuals of at least 3.5cm. Extend the rotation to 26-32 days (no benefit over 36d) and apply nitrogen before the dry to build up feed ahead. Defer grazing some areas if possible to leave standing crop for later use.

NZVA

• <u>Summer crops</u> – have a plan for when to plant, and apply nitrogen.

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HOW COMMON IS LEPTO IN SHEEP?

Well, another Massey study was conducted by Vallee on 8 commercial sheep farms across both islands. They took blood samples to assess the seroprevalence of Leptos Hardjo and Pomona (i.e. how many had developed antibodies to the bacteria). Their findings were:

- 79-100% of ewe lambs in a flock became positive for Lepto Hardjo by 17-22 months of age.
- 21-54% of ewe lambs in a flock became positive for Lepto Pomona by 4-14 months of age.
- Pomona, it was suggested, may have been associated with increased culling or death in lambs and hoggets.
- Seroconversion occurred mainly late autumn to early summer at 7-15 months, demonstrating seasonal exposure to the infection from autumn to early summer in young sheep.
- Lepto bacteria were found in the urine of 11-88% of sheep across the farms. This confirms that sheep can spread lepto to people handling sheep (especially at abattoirs).

SYSTEMS APPROACH TO PARASITE MANAGEMENT

L. Wilson wrote a fascinating article on the frightening issue of drench resistance, and how we need to change our approach to managing parasites. Resistance was found on 94% of cattle farms, while only 36% of sheep farms had anthelmintics that were fully effective! We need to look at the bigger picture of sustainable parasite

FOETAL LOSS IN EWE LAMBS

Although almost all late-pregnancy abortions in NZ sheep are due to infections (Toxoplasma, Campylobacter, Salmonella), most foetal losses occur in ewe lambs vaccinated against Toxo and Campy. What's going on? Ridler at Massey studied foetal losses in 2011-born ewe lambs on a Waikato farm. Two scans were done and it was found that 6.8% had lost their foetus by the second scan. A small number of blood samples were tested and suggested that the animals that had lost the pregnancy had more exposure to lepto.

So the following year they vaccinated some of the ewe lambs against Lepto in January and February, and again took many blood samples.

They found that:

- By August 85% were seropositive for Lepto hardjo and 48% positive for Lepto Pomona.
- Foetal loss in unvaccinated ewe lambs was 9% compared to 5% when vaccinated for lepto.
- Being seropositive for Lepto Pomona was associated with foetal loss.
- Lepto hardjo was not linked to foetal loss, probably because sheep are a maintenance host adapted to hardjo.
- Low pre-mating weight was associated with increased foetal loss.
- Low weight gain from mating to pregnancy diagnosis was associated with increased foetal loss.

So the conclusions I draw are the importance of ewe lambs achieving target pre-mating weights, and lwt gains during pregnancy. Maybe we need to consider vaccinating lambs for lepto?

management, and not just rely on grabbing a drench. Strategies include the need for refugia (undrenched animals) with avoiding weaning onto clean pasture, targeted selective drenching, and the importance of good body condition. One problem has been linear extension; the idea that advice and knowledge could be simply dictated to farmers by the "experts". But across society, the uptake for any health advice like this is fairly poor; behavior change is a complex thing and depends on:

- Perceived susceptibility to the problem
- Perceived seriousness of the issue
- Perceived benefits of taking a particular action
- Perceived barriers to taking action
- Belief about capability to do it

One barrier is that it can be hard to "see" drench resistance on a farm; tests can confirm it though. Likewise, it can be a hard decision to do something different when it can be perceived as the "difficult" option. A revolutionary response to this conundrum was taken in the Best Practice Parasite Management Program. With a "whole systems approach" approach, the farmer was the central hub with input from a multi-disciplinary team (vet, parasitologist, agri-consultant). A meeting was held every year, initially to evaluate current knowledge, practice and behavior, to develop a parasite management plan for that farm, and establish a monitoring program (faecal egg counts etc.). The options were discussed but each farmer made their own decisions. This engagement resulted in good practice changes, some farms reducing resistance, and none getting worse.

So, the first challenge is to me as a vet to get better at communicating knowledge, developing skills and advisory relationships with multiple individuals. We need to sit down as a group, consider the whole system, and come up with a plan together, tailored to your specific farm.

The second challenge is to you to ask if you want to address drench resistance and parasite management...

DRENCH RESISTANCE TESTING Productivity, Profitability, Sustainability.

Three words which are linked on your farm. How concerned are you about reduced stock health and poor return on your drench and sheep investment? Where does your farm fit in a sustainable drench future? Prior to the faecal egg count reduction test (FECRT) a basic drench check can be done during spring. This involves a pre drench faecal egg count by pooling 6-10 different animal faecal samples, followed by a 7-10 day post drench FEC. The best time to ascertain how well your current drenches are working is late summer early autumn. This period gives a greater chance of multiple worm species to be present at the time of testing. What is involved in a FECRT :

- 1. First egg count is to establish that there is a significant worm burden to give a definitive result.
- 2. Once the egg count and culture are back, separate lambs into drench family groups to be tested.
- 3. These groups are individually faecal sampled, tagged, weighed and drenched to their individual weights.
- 4. All animals run together.
- 5. 7-10 days post drench, collect samples again from individual animals.

The information collected can then be reviewed and a plan put in place for optimising your productivity, profitability and sustainability.

This year I had the opportunity to be involved with a FECRT on a commercial farm. The experience and information gathered provided valuable information for both myself and the farmer to make decisions for the pre-lamb, lambing to weaning period and beyond. DRENGHING GATTIL

Extensive trials in NZ show that administering drenches

orally is a lot more effective than giving the same drug as an injection or pour-on. Why would this be? Drugs given as injection or pour-on must first be absorbed into the animals' tissues, then carried around the body in the blood stream and delivered to the organs where the target worms live (.e. abomasum and intestines). For pour-on products this process is hampered by the need for the drug to first pass through the skin, a tissue which is very effective at keeping things out (that's its job!). Oral drenches do not rely on absorption and transport around the body to reach the worms – ultimately, higher overall concentration of the drug reaches target worms and hence higher efficacy.

Choice of drench is also important for several reasons. Drench resistant worms are very common in cattle in NZ and so to ensure optimum growth rates, it is important to use products which work. The major parasite showing resistance has, until recently, been cooperia, which for the most part is a parasite of younger animals (say less than 15 months). On most farms in NZ, the only drench active which can be relied upon to control cooperia is levamisole. The problem with levamisole is that it is not especially effective against ostertagia, the most pathogenic and therefore dangerous parasite in cattle. Therefore all treatments to younger cattle need to be a combination product containing levamisole to control cooperia and at least one of the other broad spectrum drench classes to control ostertagia.

However things are getting worse with the recent emergence of ostertagia showing resistance to the endectocide (-mectin) drenches. Farmers with endectocide resistant ostertagia would have to rely on using triple combo's to ensure adequate control of all worms. <u>The take home message</u>: It would be wise for farmers to begin paying attention to worm management and what drench products are used before resistance becomes a serious problem.

Youndstock - Target Liveueight

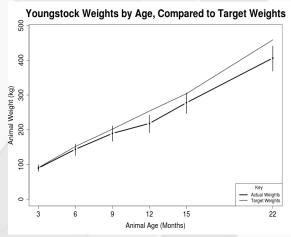
"Dairy farmers are missing out on \$millions in potential income by not achieving target live weights in their young stock".

The graph below shows the typical pattern of growth for 105,000 heifers in NZ. The study showed that while calves appeared to be weaned at target live weight (3 months), growth rates quickly start to fall behind target from weaning. The gap continues to widen with particular risk periods occurring between 9 -12 months (i.e. the first winter) with growth rates of 0.32kg/day, compared to the target of 0.58 kg/day) and again between 15-22 months (i.e. the second summer) with growth rates of 0.6kg/ day compared to target of 0.73 kg day. A period of rapid growth between 12-15 months where animals on average exceeded the target weight gain (actual 0.65kg/day cf target 0.55kg/day), failed to compensate for the slow winter growth.

Heifers do not catch up in the spring!

- At 6 months 53% are more than 5% below target
- At 15 months 61% are more than 5% below target, 18% were more than 20% behind and at risk of being pre-pubertal at mating start
- At 22 months 73% are below target on average 11% below target

The research clearly identifies winter feeding and management as an area for farmers and graziers to target to improve heifer performance. Let us translate this reduced heifer growth into dollars. A 10% decrease in weight is expected to reduce 6 week incalf rate by 5%, increase the empty rate by 2% and reduce kgMS production by 10%. At a \$4.50 payout this equates to \$80/ underweight heifer! For a farm rearing 70 heifers and 73% are below target this is equivalent to \$4080. CVS can help you monitor the growth of your young stock with our tailor made weigh program using an EID reader.



ON TARGET: One of our most practical services is a youngstock weighing program. Kelvin will come out with electronic scales and an EID reader, and give you a report on their weights relative to target. Kelly Barnett-Dreadon says: "It is great to have assistance to make things smooth, and to book in regular weighings. The reports we get are perfect for assessing progress and identifying where actions are needed". Phone Kelvin on 027 4933611.

RYEGRASS STAGGERS

Ryegrass staggers is one of the more commonly seen neurological diseases affecting all classes of cattle.

However, cattle are not the only species affected; disease is also seen in sheep, deer, horses and alpacas. This condition should not be confused with "grass staggers" which is a nervous disease caused by a metabolic imbalance of magnesium. RGS affects all ages of animal however disease tends to be less common in adult dairy cattle as they change pasture more often and don't tend to graze their pastures as low. And although the fungus is present within the grass at all times, outbreaks only occur when feed is in short supply and growing slowly i.e. summer and autumn.

<u>The Cause</u>

RGS is caused by the endophytic fungus *Neotyphodium lolii* that grows inside the ryegrass to enhance plant survival and deter insect pests such as the Argentine stem weevil. This fungus produces 3 toxins, 1 of which is lolitrem B which produces the clinical signs of RGS.

<u>Clinical Signs</u>

The effects of lolitrem B on the brain and muscles lead to loss of appetite and uncoordinated movements. Presenting signs can vary significantly between animals. When disturbed and made to walk or run, clinical signs immediately become apparent. These range from a slight head nod, to jerky limb movements, a staggery gait with short bouncy steps. In severe cases the animal often collapses with splayed hindlimbs. If left undisturbed they will, in time, stand and walk off. Mortality is generally low, with death usually being attributed to misadventure (falling and being unable to get up, electrocution from hot wires, drowning in drains etc). Reductions in animal growth rates can be quite significant due to difficulty in grazing. A second toxin produced by the fungus; ergovaline also reduces the animals tolerance to heat. Over summer and autumn high concentrations of ergovaline can contribute to heat stress and lowered milk yields.

<u>Treatment</u>

There is no specific treatment for RGS - stock generally recover within 1-2 weeks once removed from affected pasture. The key to alleviation of neurologic signs is to dilute the toxin. This can be achieved by either moving the animals onto known safe pastures (endophyte free RG swards), feeding of additional supplements (maize, grass silage and brassicas) or providing less toxic leafy pasture. Toxin binders and seaweed extracts are available that may be of some value which need to be given PRIOR to the development of neurologic signs. Providing flat paddocks free of hazards for affected stock to graze in will reduce the risk of misadventure.

Prevention

Endophyte-free ryegrasses can be sown that do not produce lolitrem B however these pastures are less vigorous then wild-type RG's and endophyte-free pastures usually contain significant amounts of endophyte within 2-3 years of being sown.

As the fungus is most common in the base of the leaf sheath and the seed head, the risk of disease can be significantly reduced by grazing avoidance. This is best achieved by keeping pasture leafy however in a dry, warm summer this can be difficult to achieve.



There is a lot of discussion about the sale of raw milk at the moment. There are claims that raw milk consumption is associated with lower rates of allergies and asthma, although the evidence is confusing. On

the other hand, there have been outbreaks of very serious illnesses attributed to drinking raw milk contaminated with bacteria: Campylobacteriosis and Salmonella in NZ, and Haemolytic Uraemic Syndrome in Italy. The NZVA stance is in favour of pasteurization of all milk.

SILYMARIN

There was a recent fascinating study in

Italy(Garavaglia, NZVJ Nov 2015) where Friesian dairy cows' feed was supplemented with silymarin and lycopene from 7 days before to 14 days after calving. Silymarin is derived from the seed of milk thistle, and has been studied for its antioxidant and liver protective properties. It seems to regulate liver membrane permeability and stability, and to scavenge free radicals.

Lycopene is present in tomatoes and is a powerful natural anti-oxidant. The idea was that cows experience oxidative stress around calving and potentially fatty liver. The high level of free radicals is involved in metabolic diseases and health disorders. If this could be minimized, health benefits could derive. The results showed an increase in milk yield, over early lactation, and a lower cell count!

It will be interesting to see if these supplements could be of any use for facial eczema.

SCANNING

Why carry empty cows? Don't forget to get your scanning booked in. If you want your AI cows dated, and identified separately from the bull matings, you may need an early scan (5-6 weeks after AI finished) and a later scan to confirm empties. This will also provide the data to allow an analysis of mating. If you just want to confirm empties and late calvers, we suggest getting the herd scanned 6 weeks after the bulls leave. We have backpack scanners as well as being able to do manual checking, with experienced operators, and can provide 2 vets for big herds. Rotary sheds can be done during milking for convenience. If you are signed up as an Infovet client, the results can be entered onto our tablet as we scan, then uploaded straight onto Minda.

Remember – Infovet is a free service this year, so sign up in plenty of time.



Eukanuba 🏶

100%

Full terms and conditions apply; see entry form or www.eukanubacompetition.co.nz for further details. There will be 12 winners of a XR 150L Farm Bike in total. One entry form to be completed per 18/19/20kg bag of Eukanuba Dog food purchased. Competition closes 31st December 2015 The promoter is Masterpet New Zealand.

BE IN TO INTO I OF 12 HONDA FARM BIKES

One entry per 18/19/20kg bag of Eukanuba Dog Food purchased.

> Enter online at eukanubacompetition.co.nz or via entry form in-store



Honda XR150L Farm Bike • 149cc air-cooled engine • Five speed gearbox

Five speed gearbox
Electric start and kick start
 Powerful front disc brake
 12 litre tank

FANCY & NIGHT OUT ON US?

We want your feedback on our customer service. If you could fill in our quick survey (9 questions) and add your details, you will enter our draw for \$200 restaurant voucher. The questionnaire can also be filled in anonymously if you prefer. You can get to the survey:

- https://www.surveymonkey.com/r/8VGH5NN
- Via our Facebook page (Cambridge Vets or Cambridge Vets Farm Services)
- On our website: www.cambridgevets.co.nz
- Or fill in a paper version at the clinic

Milk Smart Day

DairyNZ will be holding a MilkSmart Day in Feb / March 2016. This sounds like a great opportunity. Neil Chesterton quotes:

"I know it will open the eyes of your clients to a whole heap of simple, proven improvements they can make to milking cows. It is set up on a farm. Attendees rotate every 50 minutes between presentations and there is non-stop feed and refreshments going all the time. I felt like I was at a gala day but it is totally free! Any of our clients who don't go to this amazing event are missing out on a really useful day".

Keep an eye out for it at www.dairynz.co.nz/milksmart

CONGRATULATIONS



We would like to congratulate Kimberley (from our nursing team) and her partner Daniel on the safe arrival of their baby boy. 'Grayson Daniel' was born at 4.01pm on the 28th of October weighing 6lb and 15oz. We wish you and your family all the best!

Building Update!

We're hoping to move into our new clinic in February.



It will be great to have more space for our waiting room and kennels, as well as new consultation rooms and a space for seminars. Watch out for the opening day!

LEPTOSPIROSIS

Current recommended practice is to get calves vaccinated before Christmas. This will reduce the risk of them picking up the bacteria and becoming carriers / shedders. Book in your calves if not yet done.

Also the calves done last spring will need a booster as yearlings now if they did not get it done over the winter.

VET ONLY



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