gateway vets

Gateway Gazette

Issue 19 | March 2019

Staggered by staggers?

This summer we have been seeing more cases than usual of ryegrass staggers.

Ryegrass staggers is caused by a toxin released by a fungal endophyte that grows on perennial ryegrass. The fungus is found in the leaf, sheath, stem and seed but highest concentrations are in the lower part of the grazed grass and seeds. The toxin can survive in hay and silage.

Ryegrass staggers typically occurs in late summer and autumn and is usually more common in the North Island. We think we are seeing more cases of ryegrass staggers this summer due to the recent warm and dry weather spell. This decreases new grass leaf growth and encourages stock to graze closer to pasture residuals where the concentration of endophyte is higher. High levels of leaf litter may also increase risk. It can also occur in spring when animals are grazing the seed-heads.

Animals begin to show signs after one to two weeks on high endophyte ryegrass. There can be marked variation in severity of signs between animals in the mob. At rest, animals may show few signs but with forced movement the signs can increase in severity as the intensity of exercise increases. Heat will also increase the severity of signs.

The toxins released by the fungus cause neurological signs; often starting with slight muscle tremors of the head, neck and forelimbs, then head nodding and jerky limb movements progressing to swaying when standing and staggering when moving. This can lead to collapse with the head back and stiff limbs extended. The animal will then apparently relax and slowly "recover" until the next forced movement of stock. Signs are similar in cattle and sheep. Affected animals may also have diarrhoea, have decreased milk production (up to 2L/cow/day) and sperm counts. Damage is usually not permanent and animals can recover fully in one to two weeks after toxin exposure ceases. There is no known antidote to the toxin. Death from the toxins are rare, although death by misadventure under the influence does occur.

Ryegrass staggers can be confused with grass staggers (low magnesium), annual ryegrass toxicity (not reported in NZ) or polio (low thiamine/B1). These diseases will also cause neurological signs such as tremors, wobbliness and collapse. Other grass species can also cause stagger syndromes but these are much less common.

It can be very difficult to manage ryegrass staggers. Ideally if you suspect ryegrass staggers you would immediately remove animals from all access to perennial ryegrass to another grass species dominant pasture. Movement needs to be without pushing the animals, we want them walking and not stressed as this can exacerbate the signs. Removal would continue until signs have resolved, which may take one to two weeks. Practically, this may not be an option.

Diluting the ryegrass proportion of the diet may be an easier strategy. Adding in a new source of feed; such as baleage or a concentrate supplement can help to reduce pasture intake and therefore toxin intake. If a paddock with higher ryegrass length is an option, this may also help reduce the toxin intake as concentrations are generally lower higher in the sward. Planned husbandry practices, such as yarding for drenching, may have to be postponed until all signs have stopped.

If this is an ongoing issue on your farm, use of different ryegrass variants is worth considering. Some cultivars have low endophyte concentrations, or novel endophytes. The catch with low endophyte cultivars are that they are more susceptible to the Argentinian stem weevil and Black Beetles. Perennial ryegrass cultivars with novel endophytes such as AR1 or AR37 still produce chemicals that deter pests but lack the toxins traditionally associated with ryegrass staggers.

Dr Carla Fletcher

Disease prevention to protect your stags

Clostridial diseases are fairly well known in cattle and sheep, though rarely diagnosed in deer due to difficulties in obtaining samples after death that are sufficiently fresh. There are several different clostridial bacterium which can cause sudden death, enterotoxaemia (blood poisoning), wound infection and post-velvetting infection.

Stags are the greatest at risk group due to a higher incidence of bruising and penetrating wounds from fighting and hustling, especially during the breeding season. Velvetting is another risk period with the fresh wounds susceptible to infection. Animals on lush feed are also at a high risk. Clostridial organisms often exist naturally in the gut, and it is when the conditions are right, such as with a rich rising nutritional plane, that the bacteria thrive and overwhelm the system. Frustratingly, this is why it is often the best lambs, calves and deer that are lost in sudden death outbreaks.

In a Southland velvetting herd last year in October Clostridium perfringens Type D (pulpy kidney) was diagnosed and found to be responsible for several deaths. Young stags were being flushed leading up to velvetting with new ryegrass + clover pasture supplemented with a barley, soy and pea mix. The animals were in good condition. Removal of grain supplement and replacement with high-in-fibre hay slowed the disease, with only one more loss after the change. These days, as we are getting better at feeding deer, it is likely that clostridial disease is increasing too. Vaccination is a cost-effective safeguard and should be seriously considered, especially if you have a high rate of unexplained deaths.

Clostridial vaccines are not licensed in deer but have been used safely in New Zealand for many years. Options include Ultravac 5 in 1 and Ultravac 7 in 1 (clostridial + lepto) and potentially Covexin 10. Ultravac 5 in 1 and 7 in 1 are more commonly used in deer with a sensitiser and booster 3 weeks later given at or around weaning and an annual booster thereafter. Annual boosters are best given in the spring for hinds to have good levels of protection around calving and for their young through colostrum. For stags, a booster in the summer or at time of velvetting is advised for optimal protection over the breeding season.

Bashful Bulls

I came across some comments from a university professor, Peter Wilson, about Elk/Wapiti-type bull mating behaviour that I found interesting. Observations of Wapiti type bulls indicate a less aggressive attitude towards mating when compared to red deer. It appears that dominant (older, larger) bulls have a tendency to intimidate younger, smaller bulls with mating groups that are within sight or sound, even

though not in actual contact. This can suppress the reproductive performance of the younger bulls who are capable in every other way, a sort of induced, behavioural sub-fertility. Food for thought!

Thurza Dickson BVSc

References:

Mackintosh CG. Vaccines for disease prevention in farmed deer. Proceedings of the Deer Branch of the NZVA, 35-41, 2009

Stewart, P. Clostridial disease strikes velvetting stags. Deer Industry News –February/March 2019 Animal Health, p12.

To Carry-Over or not to Carry-Over

We have been pregnancy testing carry-overs recently and there has been a huge range in the results achieved. Remember there are plenty of reasons for a cow to end up empty. A later calving cow may just have needed more time and matings to become pregnant. A cow may have become lame or had mastitis at a critical point which has caused her to not cycle or hold. All these reasons are potentially one-off events and these cows can be carried over effectively.

There are also reproductive health conditions which will cause a cow to be empty at the end of mating. Some cows have cystic ovaries which may cause non-cycling or erratic cycles. Other cows may have chronic infections known as pyometra which make future pregnancies unlikely. Difficult calvings can result in chronic scarring and adhesions again making future pregnancies next to impossible.

These chronic conditions can be identified by rectal examination which avoids these cows being retained for a full year with little hope of becoming pregnant.

With more cows being scanned without a manual rectal examination this problem has become greater. We recommend manually arming all carryovers before wintering to avoid disappointment next autumn.

The best in-calf results we see are when carry-overs are restricted to avoid over-conditioning. Fat carry-overs can't achieve a rising plane over mating. This results in a higher empty rate.

Fat cows have more risk of metabolic disease at calving. After calving conditions like ketosis and fatty liver disease are more prevalent. Once carry-overs become over-conditioned it's difficult to reduce body condition score. It is easier said than done but keeping the weight off carry-overs is paramount.

The year off for the carry-over cow may be financially viable if the feed costs for the year are low. Cleaning up rough areas of a run-off block or waste areas on the milking platform are good places for carry-overs and keep condition off. It is important to track the performance of carry-overs once they do calve. If a high percentage become non-cycling, in-calf but very late or empty the next season it will mean the holiday hasn't been very worthwhile.

Don't trail behind with Teatseal

For the second year, we are pleased to have our Teatseal trailer up and running. The Teatseal trailer allows us to come to run-off blocks and to give an internal teat sealant to heifers prior to their first calving

Research shows that the administration of an internal teat sealant significantly reduces the risk of environmental mastitis in the peri-calving period . Heifer mastitis rates in NZ are currently estimated at over 25%. With an internal teat sealant, one study found a 68% reduction in clinical mastitis in the first 2 weeks of lactation. Internal teat sealants physically block the teat canal with a sterile and inert substance, preventing bacterial contamination via the teat orifice. The internal teat sealant is not an antibiotic, thus there is minimal concern for withhold periods (once stripped out after calving) or contribution to antibiotic resistance. Peri-calving mastitis in heifers has multiple negative effects. Not only is there the time and cost of treatment, it can also permanently affect the development of the mammary gland and teat canal, decreasing lifelong milking potential or lead to early culling of the heifer.

On label the internal teat sealants are recommended to be used from 4-6 weeks prior to calving. However, earlier administration of an internal teat sealant at a drier time of year reduces the risk of contamination from wet and muddy yards. Some South Island areas have been successfully teat-sealing well-grown heifers from mid-April onwards.

Please contact the clinic as soon as possible to book the Teatseal trailer and our team so we find the best time to suit you and your farm.

Dr Carla Fletcher

Startect – Rising star for sheep parasite control

Parasite control in sheep remains a challenge, and a changing picture. Achieving 'sterile' sheep with a zero worm burden is not the objective, instead the focus must be on reducing the worm burden whilst retaining a population of worms which are susceptible to the drugs we have. The ultimate aim is to avoid drug resistant worm populations.

The main strategy to achieve this in New Zealand has been to use dual or triple action anthelminthic drenches to expose worms to multiple active ingredients – hopefully knocking out those which would be resistant to the other drugs in the mix.

However, it is worth considering that over time, this repeated exposure to the traditional three actives has resulted in multi-drug resistance. This is the worst case scenario.

We must look to novel ingredients to kill these resistant worms.

One such product is Startect, which contains the familiar abamectin of the ivermectin family, with derquantel – a brand new player on the scene. Derquantel has a unique mode of action to differentiate it from all other actives on the market. It has not been released in any single active preparations to try and protect its efficacy long term.

Startect is a short acting, broad spectrum, combination product designed to kill the usual offenders as well as worms resistant to existing drenches. Startect's efficacy research was performed across 200 Aussie farms, including those with resistance, and had 99% efficacy against production limiting worms. Confidence in Startect is high – even when other drenches are failing.

Startect can be used in place of any drench in your routine system. However, its novelty makes it the perfect choice to reserve for the following scenarios;

- Quarantine – guarantee that incoming stock are not bringing multi-drug resistant worms with them by giving Startect on, or prior to, arrival in your yards. The impact of introducing resistant worm populations onto a farm can have significant negative production implications.
- Knock-out drench – use of Startect in replacement ewes prior to winter will kill worms that have been selected for resistance over summer and autumn by use of traditional drenches.
- Priming drench – use Startect as a priming drench prior to use of long acting capsules. This will help decrease worm burden and increase the efficacy of your long acting capsule.
- After long-acting capsules – use a Startect drench to ensure any multi drench resistant worms are killed prior to ewes contaminating pastures pre-lambing.

Here at Gateway we are keen to help with your parasite control planning – we offer in house faecal egg count testing, aiming to get results and tailored advice back to you the very same day. If you are not getting the expected response to your traditional drenches, please get in touch about where Startect might fit into your system.

Dr Amy Edwards

Ph: 03 693 9060 | **Fax.** 03 693 9065 | **Email.** clinic@gatewayvets.co.nz
5 Woodbury Road, R D 21, Geraldine 7991, New Zealand | Open Monday to Friday 8am-5pm, Closed Saturday & Sunday

If you would like to submit any articles please feel free to contact the editor at: clinic@gatewayvets.co.nz

We try our best to check that all the information contained in this newsletter is accurate. We encourage all readers to contact us before acting on any information from within this newsletter.