gateway vets

Gateway Gazette

Issue 15 | April 2017

Welcome

Finally a day without rain. At the risk of sounding ungrateful we have tipped out 158mm for the month of March with 56mm falling in the last 24hrs. It was just as soggy at Rotorua where I had the opportunity to attend an Ancare conference recently where the Animal Health Plan (AHP) app was highlighted. The traditional Animal Health Plan (AHP), laminated and on the wall has been fantastic, improving animal health and making sure all those critical events happen at the right time. The AHP app takes the plan to a new level, sending email reminders to a smart phone, improving compliance by easily loading batch numbers and expiry dates for on-farm assurance programs, displaying product information, dose rates and WHP and showing when treatments are completed and with what product. The app will update the next time the smartphone has Wi-Fi coverage for farms like ours with sketchy cell-phone coverage. We think this technology will be very useful especially for managing multi-farm businesses and sheep and beef operations with complex systems.

The Autumn is a good time to plan because the winter seems to go by so quickly these days with fodder beet feeding, teatsealing and early calving heifers. If you would like to have a look and see how this AHP app looks please contact the clinic.

Phosphorus Deficiency in Cattle

Phosphorus: what does it do?

Phosphorus is one of the major plant nutrients and is one of the most abundant minerals in the body. Phosphorus has a number of roles including milk production, rumen buffering, bone rigidity and is required by the rumen micro-organisms for digestion of fibre and the synthesis of microbial proteins. Phosphate is crucial in energy metabolism, oxygen delivery to tissues, muscle contraction and skeletal integrity.

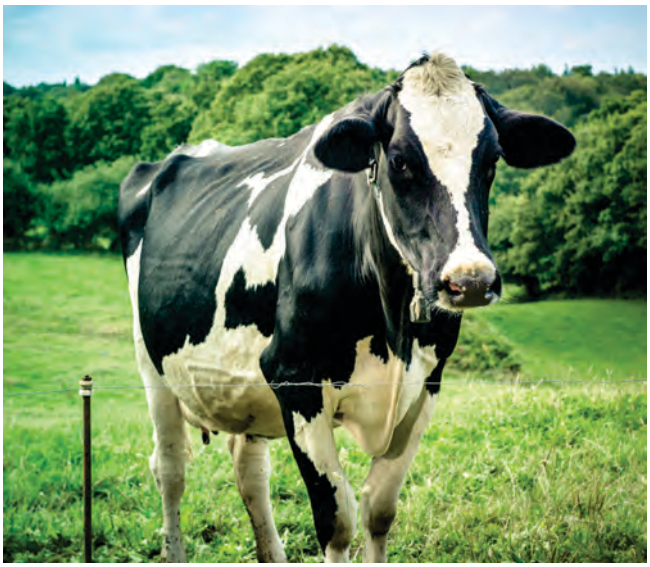
Deficiency: How does it occur?

Phosphorus deficiency in cattle grazing on pasture or silage in New Zealand is was thought to be rare due to the sufficient content of phosphorus in the soils. However, recent research has shown that even pasture cannot meet a cow's requirement. The main cause of phosphorus deficiency in NZ is when animals are fed a low phosphorus diet with low amounts of silage/pasture. The most common example of this is during winter when cattle are fed fodder beet.

Fodder beet is used very commonly in NZ due to its high yield, high ME (metabolizable energy) and its ability to increase BCS prior to calving. Fodder beet also has negative aspects, such as its risk of rumen acidosis with improper transitioning, and low phosphorus and calcium levels.

Deficiency: How does it present?

Cattle that are grazed on a low phosphorus diet such as fodder beet for extended periods of time (more than 30 days) may develop sub-clinical phosphorus deficiency. Symptoms include reduced milk yield, weight loss and infertility. Symptoms will not be obvious immediately as phosphorus will be mobilised from bone.



There is also the "creeper cow", this is the clinical presentation of an acute hypophosphotaemia (low blood levels of phosphorus). This is when the cow will crawl, unable to stand but is bright and alert. It usually affects the forelimbs. These cows respond to phosphorus administration, usually injectable form.

However sub-clinical phosphorus can also complicate an otherwise simple case of milk fever. Therefore in early lactation or around calving, a downer cow syndrome is common that is not responsive to IV calcium administration, and you will see an increase in all the associated diseases with metabolic issues such as mastitis, metritis and lameness.

Prevention: To supplement or not??

The first stage of prevention is to calculate whether the phosphorus content of the feed is sufficient. It is recommended to analyse all feed (e.g. fodder beet, silage, straw etc) for the key elements such as phosphorus, calcium, magnesium, dry matter, crude protein and metabolisable energy. This will then provide accurate information on the true phosphorus requirements over winter and early spring.

There are four sources of supplements to prevent phosphorus deficiency. The least reliable form of supplementation is through a fodder beet lick, these are placed along the break fence and although it is easy, it is not recommended as a true prevention aid due to the inaccuracy of supplementation.

One method is to supplement with di-calcium phosphate (DCP) or mono-calcium phosphate (MCP), this is usually dusted or made into a slurry and mixed in with the silage (a mixer wagon is very useful here). This method is time consuming and heavy wastage is expected. DCP is becoming redundant due to its poor availability and wastage. MCP is superior that DCP as it has a higher phosphorus content and is in a granule form (rather than the powder of DCP).

Magnesium phosphate (MagPhos) is a granular supplement that is indicated during spring to prevent phosphorous and magnesium deficiency (grass staggers). This product would reduce the labour intensive dusting of magnesium with the additional phosphorus.

Recent developments have provided the unique option to supplement phosphorus in a completely water soluble form. This product is called "SoluPhos26%"and can be administered through the dosatron, an in-trough dispenser (Peta) or through feed. This form of supplementation is more bio-available (100%) to the animal and eliminates wastage though the faeces which occurs significantly with DCP supplementation.

The bottom line

Nationwide there has been an increase in issues with phosphorus management and will be contributing to the increase in metabolic disorders. Inadequate phosphorus management could result in reduced milk yield, infertility, complicated downer cows and lethargy. With more methods to supplement phosphorus there is little argument not to address the situation and could significantly improve your calving period.

Please contact the clinic to develop a plan, we have the ability to produce a trace element supplementation that is specific to your farm.

Mammary Tumours

Why spey your bitches?

Desexing prevents unwanted litters, pyometra (pus in the uterus) and ovarian and uterine tumours. But one key reason we recommend early desexing is to reduce the likelihood of mammary tumours. The hormones as the bitch cycles are the number one factor behind mammary tumours. When your bitch is spayed before her first heat her chance of a mammary tumour is only 0.5%. If she is speyed after her first heat this chance increases to 8%. Once she has had her second heat her chance of mammary tumours is 26%- that's just over 1 in 4 of your entire bitches. This makes mammary tumours the most common tumour type in entire bitches.

In dogs, roughly half of these mammary tumours are benign and half are malignant. Malignant cancers can spread to the local lymph nodes and then to the lungs. Depending on how quickly they are picked up, how far they have spread and what type they are, these can kill your bitch. Benign tumours typically are small, firm, unattached and defined, whereas malignant tumours typically grow fast, are attached and undefined and can become open wounds. Your bitch may have multiple tumours at one time of different types and recurrence or the development of new cancers is common.

What can the vets do?

If we find a mammary tumour we may put a needle in it to get an indication of whether it is benign or malignant. Next we take an x-ray to see if it has spread to the lungs. Hopefully the lungs are clear and we can surgically remove the tumour. We then send the tumour to the lab to confirm whether it is benign or malignant and to check we have it all.

What about the boys?

Male dogs can also get mammary tumours, but it is much less common and occurs in less than 1% of dogs.

What about my cat?

Queens also benefit from early spaying. The risk of mammary tumour is reduced by 70% if the queen is spayed before 6 months. Unfortunately, if your cat gets a mammary tumour the outcome is usually worse as 85% of mammary tumours in cats are malignant.

Number of heats before spaying	Chance of mammary tumours
0	0.5%
1	8%
2 or more	26%

Pre-tup Management

It is not long now till the ram is introduced to ewes and hoggets for foothills properties. It is time to review management practices now which can translate to production gains.

Body Condition Score: We have a clear understanding of how average body condition score and the percentage of ewes which are underweight influences ewe performance. Despite this there is still a need for more focus on this area for the sheep industry.

- All ewes should have been body condition scored at weaning and light ewes drafted out. It is not too late if this hasn't happened. Ewes which are light at weaning will potentially remain this way. This is because ewes post-weaning are used to clean up paddocks to improve pasture quality. Often these lighter ewes can be the most productive sheep because they have lambed early, milked well and reared multiples.
- Faecal egg count light ewes and the main mob. Light ewes may have lost condition score because of parasitism
- An option for light ewes is to run with ewe hoggets. If light ewes don't need to be drenched this will contribute to refugia. It will also allow light ewes to graze specialist pastures like plantain/chicory or red clover which may be reserved for hoggets.

To increase body condition score by one requires 30 kg/dm of high ME intake. This will increase ewe gross margin by $13.00(Beef + Lamb prices 2010-2011). This is 43c/kgdm which is compares very favourably with other options including feeding tail end lambs.

Studies have shown ewe BCS directly affects ewe death rates, scanning%, lamb birth weights, mothering and lamb survival, quantity and quality of colostrum production, lamb growth rates and weaning weights, ewe weaning weights and potential flow on benefits.

Trace Elements: It is good insurance to drench ewes pre-tup with a mineralised drench like LSD. This provides Selenium, Vitamin E and importantly Iodine. These are all important for conception rate. Another option for Iodine supplementation is Flexidine. This is a depot iodine injection which lasts for a year. Good iodine levels increase lamb survivability by increasing neonatal vigour and thermoregulation. This particularly valuable for hogget lambs which are smaller at birth. It is also more important if ewes or hoggets are to be wintered on brassicas. This is because brassicas are goitrogenic binding Iodine making deficiency more likely.

Rams: All rams should be palpated by a veterinarian before tupping. This reduces the likelihood of an unfertile ram being used for mating. Any suspect ram with lesions of epididymitis can also be tested for Brucellosis.

Teaser rams should be introduced to hoggets one cycle (18 days) or preferably two cycles (36 days) before mating. This allows ewe hoggets to become accustomed to the ram. This will increase the likelihood of the hogget standing for the ram. Older ewes will sometimes wag their tail stump or even mount the ram. Hoggets are unlikely to exhibit this behaviour unless exposed to a teaser before mating.

Hogget Mating: Research from Massey has shown significant production advantage from mating hoggets at 45kgvs40kg. The production gains are reduced deaths at lambing, less dry hoggets, increased lambing percentage and better scanning as a two-tooth.

Hoggets should have at least received a Campylovexin vaccination sensitiser by now and ideally a booster. The booster can be administered when the ram is removed although this protocol is not ideal. Toxoplasmosis vaccination is very important for successful hogget mating. This vaccination must be administered no closer than 4 weeks before mating commences.

Please contact the clinic to discuss vaccination protocols further.

Pink-Eye

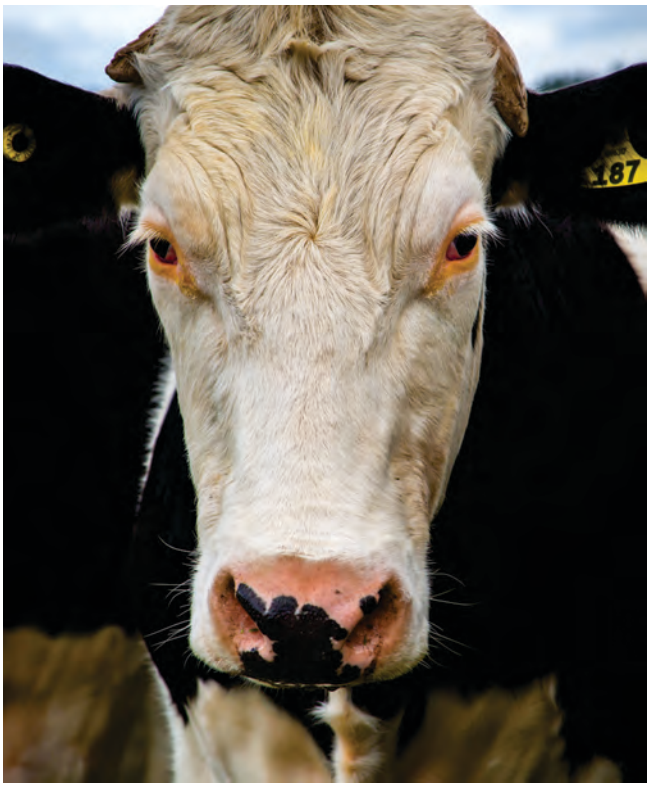
This autumn pink-eye is again proving to be a significant problem in our area. Pink-eye is otherwise known as Infectious Bovine Keratoconjunctivitis (IBK) so it is not hard to see why the shortened names have become popular. The full name gives a good description of the disease, infectious and causing inflammation of the cornea (surface of the eye) and the conjunctiva.

Pink-eye is primarily caused by a bacteria Moraxella Bovis. It can also be caused by other bacteria like Chlamydia or a virus like IBR. Cattle can be infected concurrently with IBR or Chlamydia which will increase the severity of lesions, the degree of contagion and the responsiveness to treatment. There are multiple strains of Moraxella Bovis with significant variations in the pathogenicity (ability to cause disease) and infectivity.

Anything which causes damage to the cornea predisposes cattle to pink-eye. This can be ultraviolet light during the summer, drying of the cornea during nor-west weather, dusty conditions in yards or corneal abrasion from long grass. Infection is spread directly by flies which are drawn to the increased tears produced by pink-eye affected cattle. Pink-eye can also be spread by inanimate objects like cattle yard rails or long grass.

We see more pink-eye during the summer and autumn because the above conditions are more prevalent but it is by no means confined to these months. Outbreaks occur during the winter and spring associated with rack feeding. Cattle are in close proximity increasing the likelihood of the spread of pink-eye along with dusty feed like straw can cause corneal damage.

Fortunately we have a range of treatment options for pink-eye. For mild cases there are ophthalmic ointments or subconjunctival injections. For severe cases or significant outbreaks there is an exciting new antibiotic Draxxin. It is the only injectable antibiotic on label for use against pink-eye, it has been developed for the feedlot industry in the U.S and we have found the drug to be extremely effective.



There is a pink-eye vaccine Piliguard Pink-eye-1 Trivalent. This vaccine should be administered 3-6 weeks before the period of risk. This is useful where a group of cattle will be arriving to a farm which is struggling with pink eye.

Because pink-eye in sheep is mostly associated with Chlamydia species different antibiotics are used for treatment. There is also an injectable antibiotic in the same family as Draxxin for severe cases, outbreaks or stud animals.

So there a range of options for the treatment of pink-eye along with specific on-farm strategies to reduce the spread of the disease. Please contact the clinic to discuss your particular situation.

Introducing Carla!

Carla recently joined our team at Gateway Vets as a Veterinarian. She grew up in rural Victoria in a dairy farming area, before spending six years studying in sunny Perth on the west coast of Australia. She graduated from Murdoch University in 2016. Carla is a country girl at heart and always wanted to work in dairy/mixed practice. Consequently she has flown across the ditch to join the team here at Gateway Vets. Outside of work Carla likes tramping, cake and volleyball. However if you see her limping around, it is probably due to her attempts to play soccer for Temuka!

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