

Animal Health Update

South East
Local Land
Services

September
2018

Local Disease Watch

Alexandra Stephens District Veterinarian Yass

This month has again seen drought related disorders causing problems for producers and veterinarians.

Bottle jaw has been seen in a number of cases. Bottle jaw is caused by low protein in the blood. This can be caused by parasites (barber's pole, liver fluke or emerging brown stomach worm) or gut diseases such as Johne's disease. It can also be caused by chronic malnutrition. Therefore is always beneficial to obtain a diagnosis so that the correct treatment can be given.

Outbreaks of pulpy kidney have been seen, where changes in feed quality or quantity have occurred, such as changes from supplementary feeding to crops. It is a reminder of the importance of the initial priming, second 5 in 1 booster, and 3 monthly boosters during high risk situations. Animals that have only received a single shot are not protected.

Cases of pregnancy toxemia, a deficiency of energy, and hypocalcaemia, a deficiency of calcium, have been seen in ewes at or around the time of lambing. Deaths from chronic malnutrition have also been seen. Also seen this month was a higher incidence of lambs and calves born dead, or

dying shortly after birth, and cases of calves born with deformities.

Severe outbreaks of pink eye in cattle and sheep have also been seen due to congregation for feeding.

Worm counts conducted now can greatly assist us with selection of the correct drench as we head into spring, and producers are urged to conduct frequent fecal egg counts to monitor for barber's pole worm this spring.

Many producers are investing in soundness examinations of their bulls. It is important to check bulls now and remember that sperm production takes 2 to 3 months and bulls need to be sound and in good condition for joining in just 6 weeks.

Lamb marking is upon us. Every season we see mobs of sheep affected with *mycoplasma ovis*, a blood parasite, spread by both the stress of marking and the transference of blood at lamb marking. Ensure your lamb marking contractor is taking every precaution against spreading this disease by regularly swapping shears while soaking the others in disinfectant.

Cases of chronic underfeeding have again resulted in District Veterinarians assisting the RSPCA with assessments and feeding recommendations. Producers are being reminded of both their ethical

and legal responsibilities to ensure stock have adequate feed and water. District Veterinarians are also assisting producers and stock carriers in assessment of stock to be 'fit to load' or 'fit for the intended journey'. Fit to load guidelines are for the welfare of stock to ensure that animals do not go down in trucks where they may be trampled.

Producers need to be very careful that they do not let cattle or sheep lose weight to the point where they are in a low body condition score and may be too weak to load for sale. The latest round of seasonal update talks look at feed availability, climatic forecasts and compare costs of feeding with selling and restocking. This information tailored to your local area can really help with making these tough destocking decisions.

Metabolic conditions in sheep during drought

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We have seen an increase in metabolic conditions of sheep across the region due to underfeeding or from the lack of appropriate feed in prevailing drought conditions. The main conditions of concern include: pregnancy toxemia, hypocalcaemia and starvation.

Pregnancy toxemia

During late gestation the rapidly growing foetus is competing with the rumen for space in the abdomen making it difficult for the ewe to consume enough feed to meet energy requirements. The energy requirement of a twin lamb ewe is 200% greater than a dry ewe. Combine this with lower quality feed and environmental stressors (e.g. weather, handling) or teeth problems and it places the pregnant ewe under significant pressure. Consequently, the ewe may experience a period of insufficient feed intake. The body's response in these situations is to mobilise body fat stores to maintain appropriate energy levels. This fat mobilisation overwhelms the liver, resulting in a build-up of toxic by-products in the body. Clinical signs are progressive and may include:

- loss of appetite
- going down
- a depressed or dull demeanour

- laboured breathing
- neurological signs such as blindness, circling, incoordination, star gazing, tremors, convulsions.

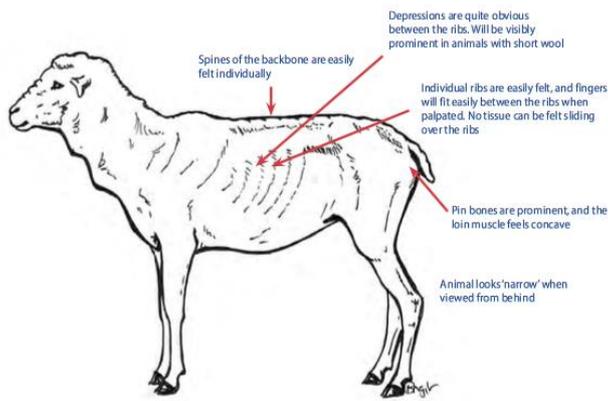
It can equally occur with singles or twin pregnancies, particularly in poor seasonal conditions. Treatment is often unrewarding in advanced cases, and many animals can be affected. Prevention is best. Ensure the entire mob has access to an appropriate diet, paying special attention to twin lambers and shy feeders.

Hypocalcaemia/Milk Fever

Milk fever is a deficiency of Calcium. It has been affecting large numbers of ewes across local farms. It is a metabolic condition that can occur just before, around, or after lambing. Ewes are particularly susceptible in early lactation as they require more calcium than they can get from the feed alone, drawing on stores of calcium in the bones. Stressors associated with overexertion, transportation and sudden feed deprivation predispose ewes to this condition. Typical signs may include: muscle tremors, bloat, and a weak gait with progression to generalised muscle weakness and collapse. Treatment is required early and requires calcium supplementation. This can be given in the form of a subcutaneous injection of a 4 in 1 solution containing calcium, magnesium, phosphorous and glucose. The disease is prevented by providing a ration that is balanced for calcium. Grains are naturally high in phosphorus but low in calcium and lime must be added at 1-2% by weight of grain fed to achieve a balanced ration. This can be fed as a loose lick with salt if mixing through the ration is not an option.

Starvation

DVs across the region have seen many cases of dead and/or down animals due to starvation. In most of these cases it has been due to energy and/or protein malnutrition from inappropriate feeding regimens, or chronic underfeeding. The animals first response to a lack of feed is to mobilise body fat reserves as a source of energy. As their condition worsens, the animals will then begin to use their muscle tissue to meet their energy needs. Animals considered at risk have a Fat Score 1 (see figure), immediate intervention is recommended.



A copy of the welfare condition scoring system can be found at:

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0012/449796/welfare-scoring-nutritionally-deprived-cattle-sheep-horses.pdf

Meeting feed requirements – “ Feed well or sell”

Meeting the energy & nutrient requirements during this tough time is critical to avoiding the conditions described above. If pastures are very short it is best to assume you are getting no assistance from pasture, thus implement a full drought feeding ration. It may require a high concentrate feed such as DDG or grains. Always bear in mind that a slow transition (approximately 3-4 weeks) onto these feeds is required to avoid other animal health issues such as grain poisoning which can be fatal.

A copy of the drought feeding guidelines can be found at:

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/582531/Managing-and-preparing-for-drought-2018.pdf

If you would like assistance with assessing your stock or feeding practices please contact your Local Land Services District Veterinarian for professional advice and support.

Barbervax®- a useful weapon in the war on worms

Alexandra Stephens, Yass District Vet

A vaccine against worms is something that seemed like a pipe dream until recently. It is fantastic that we now have Barbervax® as an

option for barber's pole control. Producers who consistently have problems with barber's pole worm year after year should consider using this product, to relieve their pressure on drenches. Using Barbervax requires planning and a vaccination program prior to the barber's pole season. It is used as part of an integrated approach, with it being just one of the management tools used to control worms. Anyone interested in using it can find out the details on the worm boss website and talk to their local rural supplier or District Veterinarian.

One of the jobs that District Veterinarians do is monitoring the worm counts that go through the regional lab and providing drench and worm management advice. This advice is given both to people who perform counts through the lab and those that ring with results from tests elsewhere. We see multiple worm results across the whole area from different properties, and it allows us to see trends over years and over the district. We use this information to contribute to the monthly state outlooks for the wormboss website.

One of the trends seen is an increase each year in properties affected by barber's pole worm/haemonchus. Currently we are seeing a majority of egg counts with haemonchus as being a small to significant part of the egg count. Results from neighboring properties or even from different management groups with a farm are significantly different. These differences occur through differences in drench usage (both product and timing), grazing management, and use of cattle or not in the grazing rotation.

Barbers pole worm caught a lot of people out last spring and summer, causing deaths or anaemia in large numbers. It takes more than 4 months for 90% infective larvae to die on pasture, meaning that pastures that become dangerously infective in autumn will stay that way into spring.

Knowing what worms are in your sheep now at the end of winter will really help with decisions about which drench products should be used on the sheep heading through spring. The best tool we have in managing barber's pole worm is regular worm egg counts. 10 separate counts are more useful than 2 averages. Larval differentiation/culture is very helpful for decision making.

Barber's pole worm is fussy about its conditions for breeding and problems do not escalate during the winter when it is too cold for the life cycle to complete. But it is a very prolific egg layer and has a very short life cycle. In ideal conditions, when the daily maximum is >18°C and there are frequent rain shower events and sheep are grazing short green feed, pathologic amounts of barber's pole can build up very quickly. To keep ahead of barber's pole worm this spring conduct worm counts at least every 4-6 weeks. Worm count results may suggest the need for sustained long acting drugs to achieve control during the spring, or dry conditions may result in short acting drenches being effective.

Although producers may not have had problems with barber's pole worms on their property before, these worms are arriving with a significant white drench and ivomectin/abamectin resistance. This is often where we see people running into problems, as they think they have effectively drenched sheep but have not. Problems can also occur where producers have used long acting products without a primer or tail cutter. Knowing which drenches work for you with the scour worms is not the same as knowing which drenches work on your barber's pole worm. They may all be strongyle round worms but each worm type has its own resistance pattern.

In order to drench effectively for barber's pole worm we are reaching for the big guns, and drenching more frequently. This is placing more stress on our best drenches due to more frequent exposure to our scour worms. In the south we still mostly have the benefit of levamisole, and closantel still working against barber's pole, but this cannot be assumed and should be checked after drenching with a drench check.

A drench check is the repeat FEC 10-14 days after drenching. It checks that the drench you just used was 100% effective. I feel that this is one of the best ways of staying in touch with what drenches are working for you for the different worm types. For more worm or drench choice advice contact your local District Veterinarian.

BioWorma®

Henry Clutterbuck, Goulburn District Vet

In July of this year BioWorma® was added to the integrated parasite management arsenal. BioWorma is a fungus that acts in the faeces to trap and eat worm larvae. Thus it disrupts the round worm life cycle on the pasture, including barber's pole worm. The product works through the action of the fungus *Duddingtonia flagrans* (DF). The ingested spores in BioWorma are passed through the animal and onto the paddock in the faeces. The spores germinate in the faeces and form a fungal network that traps the worm larvae.

Feeding of BioWorma daily will assist in the reduction of paddock contamination with infective worm larvae. International Animal Health Products, the makers of BioWorma, claim that larval counts are reduced on pastures by up to 84% in horses; 81% in cattle; 86% in goats; 68% in sheep.

Daily feeding is required to maintain the activity of DF and long term use will not establish DF on the pasture. Feeding can occur at any time during the year depending upon the type of operation. It is recommended that BioWorma be used strategically during periods when weather conditions are warm and wet and conducive to larval development and transmission onto pasture. It is recommended that producers begin to use BioWorma when stock are moved onto a clean paddock to reduce overall contamination. It is important to note that whilst BioWorma will start acting immediately on emerging larvae it will not affect any larvae already emerged on the pasture. Therefore, use with an effective drench is recommended.

BioWorma can be safely fed to all domestic livestock and horses. It is available in two forms depending on the producer's preference. BioWorma can be fed with other feeds as a supplement or in a ration.

So far laboratory studies have shown that residue levels have been below the appropriate European Union Safety Guidelines. BioWorma has also been shown to have no effect on the abundance of beneficial soil nematodes and microarthropods.

As always an integrated parasite management to reduce reliance of chemical drenches is recommended. For more information on integrated parasite management plans please visit the ParaBoss website.

Infectious Keratoconjunctivitis- 'Pinkeye' in sheep

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Pinkeye is an infectious and contagious bacterial disease of sheep most commonly caused by *Chlamydia psittaci (ovis)* or *Mycoplasma conjunctiva*. Although pinkeye is most prevalent over summer it can occur at any time of the year and has become apparent in a number of flocks at the present time. Due to its contagious nature Pinkeye has been found to effect up to 80% of individuals in mobs resulting in significant losses to productivity and therefore profitability.

Predisposing factors:

- flies - act as vectors and are responsible for the spread of bacteria
- dust - irritation, increases tear production and also assists spread
- trauma – e.g. stubble irritating the cornea allows access for opportunistic pathogens
- overcrowding or coming together for feeding - assists spreading via direct contact and increases stress (stress can suppress immune status)
- immune status - reduced immunity decreases ability to mount an immune response against the bacteria (e.g. young stock, poor condition, environmental stresses)
- introduction of new infected animals.

As seen above it is clear to see why Pinkeye has arisen in the current dry conditions (wind, dust, as well as close contact and irritation related to drought feeding).

Symptoms:

Pinkeye leads to inflammation of the cornea and conjunctiva resulting in increased sensitivity to any irritant resulting in clinical signs of:

- temporary blindness (can be permanent in severe cases)
- clouding/opaque appearance of the eye
- reddening and swelling of the moist tissues of the eye (conjunctiva)
- blephora - spasmodic blinking (squinting)
- photobia - pain and discomfort during light exposure
- epiphora - excessive discharge from the eye.

Treatment:

It is important that Pinkeye is diagnosed and treated early to avoid a flock outbreak. This typically involves separation and treatment either topically or systemically with antibiotics. In the case of a flock outbreak systemic antibiotics are most commonly prescribed via a two-injection approach (commonly a Tetracycline e.g. Alamylin) to the entire flock. This is due to practicality when compared to the application of topical therapies. Also, some of the causative agents of pink eye in sheep are not sensitive to Orbenin eye ointment.

Prevention:

Unlike cattle there is no vaccination to prevent Pinkeye for sheep and goats due to the different causal pathogens (*Moraxella bovis* in cattle). Preventative measures that can be applied to keep Pinkeye to a minimum include:

- Cleanliness via the use of gloves during examination; keeping shelters clean (appropriate ventilation and control dust); and maintaining suitable ground coverage with pastures/crops in paddocks.
- Keeping a closed flock and quarantining new animals (isolate for at least 30 days). Minimal mixing of mobs.
- Fly control through the use integrated pest management strategies.
- Constant surveillance of mobs with early segregation and treatment of suspicious individuals.

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