Animal Health Update

South East Local Land Services

June 2020

LOCAL DISEASE WATCH
Alex Stephens District Veterinarian Yass.

Good autumn soil moisture profiles have resulted in strong growth of pastures and crops. The early autumn break on open pastures resulted in many pastures with a high proportion of clover. Clover and crops provide excellent nutrition, but we have seen higher losses this month due to bloat and pulpy kidney. A predominantly clover diet can also cause selenium deficiency and some cultivars contain high levels of oestrogen. In other parts of the South East we are still seeing problems associated with supplementary feeding. Below is a summary of diseases we have seen this month and feature articles on pulpy kidney, lameness in sheep and hydatids. If you have any questions, please don't hesitate to give your local district veterinarian a call.

Salmonellosis has been seen in some sheep flocks. It is an infectious disease that can cause fever, scouring and death or abortion. Affected stock become acutely ill and can die before scouring is evident. Early identification is key and working with your vet is essential to overcoming an outbreak. Stock become infected by eating feed or water contaminated with *Salmonella* bacteria, this can occasionally happen in confinement situations where one stressed animal starts to shed higher levels of bacteria, infecting others and causing an outbreak. It is best prevented by minimising stress, reducing contamination of feed and isolating and treating affected animals.

Grain poisoning in cattle can occur not just when cattle are first introduced to a new carbohydrate source but when changing from one batch to another. This can happen particularly when alternate feed sources are used such as brewers waste where the fermentable carbohydrate level can vary considerably from one batch to another. When supplementary feeding you always need to allow the rumen time to adjust to a new diet and feed in a manner that allows all cattle access to a little bit at first. Always make sure that the diet has at least 15-20% roughage which can be in the form of dry standing feed or hay. The chewing of roughage helps the cattle to produce more saliva, which has a high pH and will buffer the rumen.

Bloat and pulpy kidney losses have been significant in late May and early June. The impact of bloat and pulpy kidney is greater with such high cattle prices. Checking cattle frequently and carefully for signs of bloat is advised. Although they are separate diseases, the digestive stasis caused by bloat can lead to pulpy kidney, so good insurance against losses on high risk pastures is to give another 5 in 1 booster as well as offering anti-bloat blocks and licks. See the prime fact for an extensive list of preventative and treatment options and the article on pulpy kidney below.

Selenium deficiency can be seen in deficient areas in years where a predominance of the diet is clover. When we get an early autumn break favouring clover growth we have increased risk of selenium deficiency in the winter and spring months. It can affect both cattle and sheep causing infertility or early embryonic death, ill thrift in weaners, deficiencies of the immune system and white muscle disease in newborns. It can be easily tested for with a blood test from a sample of animals. It is prevented using pasture based or short or long- term selenium supplements. Talk to your district veterinarian re: testing or supplementing.

Oestrogenic clovers can cause a temporary infertility and early embryonic loss when ewes graze a high proportion of oestrogenic clover over the period of mating. It is seen with some older cultivars of sub-clover and red clover. Permanent infertility and dystocia can result from changes to the cervix. Diagnosis can be made by identifying oestrogenic symptoms, postmortem or identification of significant oestrogenic cultivars in the pastures. The long-term solution is pasture renovation and the short-term control is grazing management.

Grazing pregnant and lambing ewes on cereal crops can fill the nutritional gap but must be done with caution and an awareness that there can be losses of ewes during lambing. This is due to both the increase in lamb size and due to the difficulty in mobilising adequate calcium and magnesium into the blood stream at lambing. Current recommendations are to either avoid placing ewes on these crops until after lambing and or to provide a 1:1:1 loose lick of salt, agricultural limestone (Ca) and Causmag (Mg). Problems can still occur even with loose lick provided. Please contact us if you are having issues as further research in this area is required and an accurate diagnosis of issues on your property can assist us all in learning how to manage lambing ewes on crops.

See more here.

Problems on grazing canola. Grazing canola crops have provided excellent nutrition for both cattle and sheep. Problems usually occur on introduction, beware bloat, pulpy kidney and nitrate poisoning or after extended periods of grazing. It is important to ensure that adequate supplementary fiber is provided as problems can arise when the brassica makes up more than 60% of the diet when grazing long term. For more information see here.
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Ringworm in cattle is not a worm at all but a fungal infection of the skin causing juvenile stock an ugly appearance. The ringworm fungi damage the hair follicles and result in 2-10 cm patches of hair loss. Grey crusty scabs form over the affected skin which fall off as the hair grows back. It is not itchy, and recovery occurs without treatment in 1-6 months. It is species specific but beware cattle ringworm can infect humans.

Warts in cattle are similar ugly grey growths found on the head of juvenile cattle and may grow in conjunction with ringworm. They are caused by papilloma virus and can penetrate the skin where there is minor damage. Warts generally grow over a period of weeks or months, then slowly regress over the following 6-12 months. On affected animals there may be only a few warts to several hundred. As with ringworm, no treatment is required.

Sheep lice are a priority disease and a costly problem for the industry. Your district veterinarian can assist you with diagnosis of lice as well as running through available treatment options, providing a list of dipping contractors for your area and working out a lice biosecurity plan for your property. For more information on lice see: www.liceboss.com.au/sheep-goats/

Intestinal adenocarcinoma is a common tumor of older sheep. It was diagnosed in an older ewe with profound weight loss and ascites (fluid in the abdomen). The cancer of the intestines can look a lot like Johne's disease, and it is valuable to get an accurate diagnosis. It can be diagnosed by postmortem with samples sent to the laboratory.

Lameness and feet problems in sheep. Diagnosing lameness and managing feet now, early in pregnancy may do a lot to reduce losses later, at the point of lambing. See the article below.

PULPY KIDNEY (ENTEROTOXAEMIA)
Henry Clutterbuck District Veterinarian Goulburn

Recent pasture growth has provided a perfect situation for outbreaks of pulpy kidney on farm. Several cases across the district have really highlighted the need to vaccinate animals being put on the highly digestible pasture.

Highlights

Cause: Overgrowth in the gut of bacterium *clostridium perfringens* which releases epsilon toxin killing the animal

Affects: Sheep, goats, cattle

Risks: Animals with no or incomplete vaccinations particularly young fast-growing animals on lush pasture

Diagnosis: Post mortem by LLS district veterinarian or local vet

Treatment: Seldom rewarding

Prevention: Vaccination.

What is pulpy kidney?

Pulpy kidney is a disease that effects sheep, cattle and goats. It occurs when high energy (high carbohydrate) feed is consumed. This is normally in the form of fresh green grass or grain. The presence of this high carbohydrate feed in the gut allows the overgrowth of the *clostridium perfringens* type D bacterium. This bacterium releases a toxin called epsilon toxin which poisons the animal.

Which animals are at risk?

Pulpy kidney usually manifests in young fast-growing animals that are unweaned or recently weaned, particularly lambs. Animals that have recently been moved to lush pasture are another risk factor. Most commonly unvaccinated animals or animals who have not received their second vaccine dose are affected. Heavy losses regularly occur.

Diagnosis

If you suspect pulpy kidney in your flock or herd please call your local LLS district veterinarian or local practitioner. Diagnosis is readily achieved through post mortem.

Treatment

Unfortunately, there is no specific treatment for pulpy kidney. For valuable animals treatment can be attempted but the results are seldom favourable.

Prevention

Vaccination. Vaccination. Vaccination!

A vaccination program with 2 doses 4-6 weeks apart and 3 month or yearly boosters depending on the brand or level of risk is required to achieve long lasting protection.

LAMENESS IN SHEEP
Petrea Wait – District Veterinarian Monaro

With the recent wet conditions and good pasture growth across much of the South East we have seen increasing numbers of lame sheep. There are many reasons sheep can show signs of lameness and these may be infectious, inflammatory or traumatic in origin and may range from a mild limp to a severe lameness where the animal cannot place any weight on the limb. When lameness is mild it might be tempting to just ignore it and think that they will 'get over it', but there are some important reasons why you should investigate the cause of the lameness and to involve your vet.

Any cause of lameness can cause a significant animal welfare issue as lame sheep often spend less time eating, leading to weigh reduction and production losses. Severe lameness may also result in wool breaks, devaluing fleeces, and can cause late pregnant ewes to develop pregnancy toxaemia (lambing sickness), a frequent cause of death. Joining rates may also be reduced when rams are affected. In addition, stock that are unable to weight bear on one or more limbs are not fit to be transported.

There is also a legal responsibility to investigate lameness in your sheep. The Biosecurity Act 2015 requires everyone to take reasonable and practical measures to prevent, eliminate or minimise the impact of biosecurity risks. This is your general biosecurity duty. Sheep producers are expected to know that lameness in sheep could be a sign of footrot and as footrot is a notifiable disease in NSW there is a duty to report this to a Local Land Services (LLS) district veterinarian for investigation and advice. A person who fails to discharge their general biosecurity duty is guilty of an offence under Section 23 of the Act and substantial penalties may apply. More information about your Biosecurity Duty can be found here.

Footrot is classified as either benign or virulent in NSW and the distinction is made depending on the severity of hoof damage caused. Virulent footrot is subject to regulation and restrictions are placed on flocks with a responsibility to eradicate the disease and to not sell sheep except directly to slaughter. The early stages of virulent footrot are identical to interdigital dermatitis (foot scald) and

benign footrot with moist inflammation between the claws and underrunning of the soft horn of the heels and sole of the hoof a feature. When the outer hard horn of the hoof detaches from the sole and soft tissues of the foot the infection is classified as virulent. The degree of lameness can vary depending on the severity of active infection, seasonal conditions and weight or breed of sheep. The NSW DPI Footrot Primefact has more information.

Footrot can often be confused with other causes of lameness, most commonly foot abscess, as this disease also causes a moist inflammation of the foot and increases in prevalence when paddocks are wet. Sheep with foot abscess are often very reluctant to put their foot on the ground as it is usually very swollen, hot and painful. The abscess may burst out at the heel, the coronary band or between the toes and discharge cream coloured or blood tinged pus. Heavy sheep such as pregnant ewes and rams are most often affected, and antibiotic treatment is frequently required to resolve infections.

Another infectious cause of lameness is scabby mouth which may cause lesions around the lower limbs of young sheep. These lesions can become secondarily infected with dermatophilus bacteria in damp conditions resulting in inflamed, moist, bloody raised wounds. This is known as ‘strawberry footrot’ but is in no way related to virulent footrot. Lameness is usually mild and lesions regress with time, but sometimes need antibiotic treatment in severe cases. More information about lameness in sheep and its cause, including foot abscess, scabby mouth and arthritis, is available from the DPI Sheep Health and Disease webpage here.

Many other causes of lameness may affect your sheep at any time and include conditions as diverse as arthritis, shearing wounds, neurological diseases or just plain old footsoreness. The important thing to remember is that a cause needs to be determined so that appropriate action can be taken. Your district veterinarian can help you with finding a diagnosis and the best advice.

ZOONOSES - ANIMAL DISEASES THAT CAN INFECT YOU

Zoonotic diseases are animal diseases that can infect and cause disease in humans. Anyone working with or handling animals needs to know about zoonoses and the precautions they must take to minimise the risk to themselves and their family. Examples of zoonotic diseases are: Hydatids, Q fever, Leptospirosis, Salmonella, Campylobacter and Hendra Virus.

South East LLS district veterinarians will be running a series of articles providing information on Zoonoses. The first in this series is about Hydatids.

HYDATIDS

Alex Stephens District veterinarian Yass and Henry Clutterbuck – District Veterinarian Goulburn

Hydatid disease is caused by a small tapeworm (*echinococcus granulosus*) that lives in the intestines of dogs, dingoes and foxes (definitive host). They become infected by eating offal (internal organs) normally from sheep or goats (intermediate host) contaminated with hydatid cysts. Humans are not part of the normal life cycle of the hydatid tapeworm (accidental host). Humans become infected by handling infected dogs and /or their faeces. This occurs because the hydatid eggs are very sticky and are easily transferred from the dog's coat to human hands and then be ingested if hand hygiene is

not adhered to. Children on farms are particularly vulnerable. Humans do not become infected by eating contaminated sheep or goat meat.

Upon infection the tape worm can lodge in a variety of organs most often in the liver and lungs, and less frequently in the bones, kidneys, spleen, muscles and central nervous system. Abdominal pain, nausea and vomiting are commonly seen when hydatids occur in the liver. If the lung is affected, clinical signs include chronic cough, chest pain and shortness of breath. Other signs depend on the location of the hydatid cysts and the pressure exerted on the surrounding tissues. Non-specific signs include anorexia, weight loss and weakness. IF you suspect you may have hydatidosis please contact your primary care physician.

This is not a disease of the past. A recent survey showed that of 1.2million beef cattle slaughtered at eastern Australian abattoirs between 2010 and 2018, 33% were infected with hydatid disease. They cost abattoirs $450,000 dollars annually in condemned and downgraded product.

What you can do to prevent infection?

De-worm your domestic and farm dogs every 6 weeks with a product containing praziquantal (specific for tapeworm). Tips: buy dog worming tablets in bulk and have on hand.

Do not feed farm and domestic dogs raw offal or allow dogs to scavenge dead animals.

Feed commercially available dry dog food.

Dispose of offal and carcasses in a way that prevents scavenging by wild dogs, foxes or domestic dogs (use an offal pit, deep burial or burning).

Dr David Jenkins (Charles Sturt University) is currently looking into the burden of hydatids in farm dogs in the South East. If you would like to know the risk on your property and you have a farm dog that is overdue for worming, please assist the project by collecting fresh faeces and submitting to the Yass office. For more information on this project please follow the link and to arrange sample drop off call Alex Stephens 6118 7700.

Learn more about Dr Jenkin's research here.

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