

# Animal Health Update

South East Local Land Services  
September 2020

## LOCAL DISEASE WATCH

### Alex Stephens District Veterinarian Yass and Lou Baskind District Veterinarian Palerang

This month District Veterinarians, with the assistance of final year vet students, have undertaken several **late term abortion** investigations both in cattle and sheep. Getting definitive results in these cases can be difficult, see the article below for more in-depth information.

The prolonged and severe cold snap of late August did unfortunately contribute to ewe losses from **pregnancy toxemia** and lamb losses due to **exposure**. It also contributed to losses in lactating cattle on crops from **hypomagnesaemia (grass tetany)**. Hypomagnesaemia could also be a real ongoing risk in cattle grazing on crops and pastures where there is minimal clover and minimal roughage. Lambs on crop on one property were found to develop **rickets** despite having loose lick calcium available, low Vit D levels due to prolonged cloudy days would have contributed. Ill thrift in weaner sheep was investigated and mild **selenium deficiency** found.

**Bloat** has continued to cause cattle losses due to lush clover pastures. Mouth ulceration in yearly cattle was investigated and the appropriate samples taken to rule out exotic foot and mouth disease and vesicular stomatitis. With mucosal disease also ruled out, lesions were thought to be typical of **oral necrobacillosis**.

Anthrax was ruled out in 2 cases of sudden death with bleeding from the nose, **pulpy kidney** was the cause in one case and **acidosis** in another. **Bovine Johne's disease** was found to be the cause of persistent weight loss in a cow. **Marek's disease** was found to be the cause of deaths and paralysis in some home bred poultry, vaccination can prevent this disease. By far the most prevalent problem this month has been **foot abscess** in ewes and **foot rot causing lameness** due to persistent wet conditions. You can read more about managing foot abscess in lambing ewes [here](#).

Once the weather starts to warm to daytime averages of more than 10 degrees we will enter an ideal foot rot spread period. Producers are again reminded that **virulent foot rot is a notifiable disease** and those with lame sheep have a legal biosecurity duty to check the feet for foot rot and notify the District Vet. Benign foot rot can look like virulent foot rot so it is important to involve your District Vet to make an accurate diagnosis and develop a plan.

**Cattle lice** are very prevalent at the moment. They are loving the cool weather and long winter hair coats of the cattle. Treatment is only required if cattle appear distressed or are causing hide damage

from rubbing. If lice have laid eggs (nits), two treatments 14 – 16 days apart may be needed to break the lifecycle.

July was the typical month to **drench cattle weaners** and move them to a worm-safe pastures, so do this now if you haven't already. This will help limit the rapid rise of *Ostertagia* numbers in spring. Monitor closely for signs of worms such as poor growth (illthrift) and diarrhea (scouring).

The best way to get a handle on where worms are at in your sheep is to do a **WormTest – a faecal egg count**. Kits are available from the LLS offices – while technically “closed” due to COVID, you just need to ring ahead and make a time to collect your kits. Call 1300 795 299.

Feecal egg count (FEC) testing though the DPI lab was low in August, probably because many sheep in our area currently have excess nutrition, and many ewes are currently lambing. Currently FECs are of most value on mobs of yearling weaners. Many sheep that had last been drenched in February still had worm counts between 0 and 40. It is very valuable to monitor now, both to see if the hoggets do actually need drenching and it is also very important to monitor for higher counts which may indicate the presence of **barber's pole (heamonchus)** worm in your FECs.

Current predictions are that September may be warmer than average. This may contribute to higher worm risk, depending on pasture heights and pasture contamination levels. If FECs are high, it is extremely important to drench effectively. If you use long acting mectins, prime with either a white clear(levamisole) combo, levamisole, startec, zolvix or closantel. Resistance of barber's pole worm to mectins and reduced efficacy of long acting closantels is a real issue in our district. Manage barber's pole early in the spring, just as the weather starts to warm to > 15degrees and allow egg hatching, by drenching effectively and moving to a clean pasture. This will greatly reduce the buildup of worm numbers and pasture infectivity. Remember that pastures last grazed with sheep in autumn may still be infectious now.

## **THE INVESTIGATION OF ABORTION OUTBREAKS IN EWES**

### **Kellie Wilson Charles Sturt University, final year Veterinary Student**

Outbreaks of abortions in ewes can result in considerable economic losses for producers. A thorough investigation is required in order to reach a diagnosis and implement appropriate management strategies for the future. Some of the infectious agents can cause disease in humans as well as animals, and this is an important consideration for producers. Some diseases can be vaccinated against and others require management to minimise.

#### **Signs of abortion in a flock**

- increase in the number of dry ewes which may be seen at lamb marking or as empty ewes at scanning
- blood stained breeches
- aborted fetuses
- decreased lamb marking percentages
- early lambs with increased mortality.

### **Potential infectious causes of abortion**

- Campylobacter sp.
- Salmonella sp.
- Toxoplasma gondii
- Chlamydia abortus
- Listeria monocytogenes
- Brucella ovis (Brucellosis)
- Pestivirus (Border disease)
- Neospora caninum

### **Potential non-infectious causes of abortion**

- trace mineral deficiencies such as copper and selenium
- ingestion of plant toxins, often seen with annual ryegrass toxicity and nitrate/ nitrite poisoning
- inadequate ewe condition at joining may result in infertility
- rough handling in the early stages of pregnancy (before 42 days) can result in some pregnancy losses, although after this time pregnancies become much more robust.

### **Abortion outbreak investigation**

Often the investigation into the cause of abortion in a flock is challenging. This can be due to a combination of factors including the retrospective nature of the investigation, the lack of available diagnostic samples and the limitations of diagnostic tests to comfortably confirm a specific diagnosis. The investigation should begin with the collection of a complete flock history with an aim to define which animals are affected and gain an understanding as to the reproductive status of these animals. Seasonal variation due to variations in condition score also occurs and needs to be taken into consideration.

Scanning data is highly beneficial as it allows for early detection of the problem. It also provides an accurate estimation of stage of gestation which can aid in determining the cause of the outbreak. For example, with an increase in ewes scanned empty, the veterinarian may recommend clinical examination and sampling of the rams for bacteria such as Brucella, Actinobacillus and Histophilus, in an aim to investigate potential infertility in the rams and abortions in the ewes.

The flock should be inspected for signs of clinical disease which may not always be present. The veterinarian may advise for samples to be taken to gain more information about the potential cause of the abortions. There are two main options for diagnostic testing which include, the inspection and testing of placentas and aborted foetuses and the collection of blood samples from affected animals for testing. The placenta and aborted foetuses may be appraised for gross abnormalities, which may be used to suggest a particular cause of disease. Swabs of the tissue can be made and cultured for the presence of suspected bacteria and slices of tissue can be taken and observed microscopically at a cellular level. The value of these tests can vary based upon the quantity and quality of the sampled material as well as the ability of the test to rule in or out a particular disease.

Often it is difficult to find aborted material and commonly, if found, the specimens are inadequate for a diagnosis to be reached as they are contaminated or not fresh. Blood testing appears to be a more frequently used option, as the collection of blood from affected animals can be easily achieved.

However, there are some significant limitations to this form of testing and the results must be interpreted appropriately. For example, if blood that is collected from the affected ewe is found to have antibodies to the suspect pathogen, this does not necessarily confirm the cause of the abortions. This result confirms that the ewe has been exposed to the pathogen during its lifetime, it does not indicate if the infection is historical or currently active. The other difficulty is that blood testing is often done a significant time after the abortion event.

The diagnostic tests that your veterinarian may recommend will depend on the specifics of the case at hand, taking into consideration the flock history, the clinical presentation of the animals involved and the availability of appropriate samples. Electing to investigate the cause of the problem allows for the appropriate steps to be taken in order to reduce ongoing losses in the future. It is important to remember that by scanning ewes, this may lead to an early detection of the problem and is more likely to result in the cause of disease being found. If you are concerned about a potential abortion outbreak in your flock contact your District Veterinarian for more information.

## ILL-THRIFT IN HOGGETS

**Amber O'Neill Charles Sturt University, final year Veterinary Student**

Ill-thrift continues to be an ongoing problem for many producers and can lead to poor wool production and reduced growth rates, as well as reduced future reproductive performance.

There are many causes for ill-thrift in weaners, including malnutrition, worm burdens, selenium deficiency, mycoplasma ovis infection and cobalt deficiency. With so much feed available why might we be seeing illthrift now?

**Selenium deficiency**, seen as white muscle disease in severe cases, is due to an inadequate dietary supply of selenium and typically occurs in big clover years in weaners. A deficiency in selenium results in cell membrane damage and tissue necrosis resulting in reluctance to move, hunched posture, difficulty breathing and death in severe cases, although it more commonly presents as ill-thrift. Selenium deficiency is generally a property-specific problem, with deficient properties required to put measures in place to prevent clinical signs of deficiency across all ages of sheep. Lambs can be protected by vaccinating ewes 4-6 weeks prior to lambing with a selenium-containing vaccine or better still using a long acting selenium injection (Selovan®) which lasts for 18 months. Lambs are given a long acting dose at weaning which then lasts them through until they get their first adult dose prior to lambing as 2-year olds. If you are concerned about selenium deficiency a simple blood test of your hoggets' is advised this spring. You can find more information on selenium deficiency in our [September 2019 Animal Health Update](#).

**Cobalt deficiency** is another cause of ill-thrift in weaners, especially after winter rainfall as we have seen in the South East over the last few months, with rapidly growing pastures and well-drained soil being risk factors. Sheep with cobalt deficiency usually also show signs of weepy eyes, anaemia and small lambs. Cobalt deficiency can be prevented by giving regular vitamin B12 injections or giving rumen cobalt pellets at weaning, which last for 1-3 years. There are also options for spraying pastures with cobalt sulphate or using multi-mineral drenches.

**Worm burdens** should be considered as a possibility for ill-thrift weaners, with chronic infestations of Barbers Pole worm and Small Brown Stomach worm causing ill-thrift and infestations of Black Scour worm and Thin Necked Intestinal worm (nematodirus) causing ill-thrift, scouring and weight loss. Routine faecal egg counts and strategic drenching are effective methods in preventing ill-thrift caused by intestinal worms.

**Liver Fluke** may also cause weight loss and anaemia in weaners, especially on properties along rivers or creeks. Similarly, mycoplasma ovis also causes anaemia as well as ill-thrift and is a blood parasite that generally affects stressed weaners. Minimising stress and ensuring hygiene thus minimising transmission at lamb marking will reduce the number of sheep affected by mycoplasma ovis.

If ill-thrift is a concern in your mob or for more information, contact your local District Veterinarian on 1300 795 299.

## **SHEATH/PIZZLE ROT TREATMENT OPTIONS**

**Amber O'Neill Charles Sturt University, final year Veterinary Student**

Infection of the prepuce is often termed sheath rot or pizzle rot and is a disease that affects mainly wethers grazing protein rich pastures such as clover. Sheath rot often leads to severe inflammation, urine retention, ulceration of the pizzle and a strong smell of ammonia at the opening of the prepuce.

High protein diets cause an increase in urea in the urine, allowing bacteria such as *Corynebacterium renale* to thrive. These bacteria live in the urinary tract of sheep and convert urea to ammonia. Ammonia is an irritant and causes ulceration of the prepuce and skin. Wethers are particularly susceptible as they often collect urine in the prepuce which results in wet wool or hair and subsequently provides the ideal environment for bacteria to thrive. This wet environment surrounding the prepuce often leads to fly strike as well. The removal of wool around the prepuce and debridement of necrotic tissue as well as combination antimicrobial therapy can be used to treat affected sheep. The use of copper sulphate (10% solution or mixed one-part copper sulphate with eight parts petroleum jelly) on ulcers can also be effective.

Prevention is better than treatment, with testosterone injections often used to improve the metabolism of protein and therefore reduce the concentration of urea in the urine so that bacteria are unable to thrive and establish infection. This can also be used as a method of treatment if needed. Controlling dietary protein is another method of prevention.

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