

Animal Health Update

South East Local Land Services

October 2020

LOCAL DISEASE WATCH

Alex Stephens District Veterinarian Yass.

Beware introducing Foot rot

Much of the South East has entered an **ideal foot rot spread period**, due to preceding winter rain fall, high pasture growth rates, clover and capeweed density and rising temperatures.

Benign and virulent foot rot, caused by the bacteria *Dichelobacter nodosus*, are expressing to a maximum amount. There are many different strains of the bacteria with variable amounts of power to under run the heal. For more information see <https://www.dpi.nsw.gov.au/animals-and-livestock/sheep/health/footrot/footrot-sheep-goats>

Virulent foot rot is a notifiable disease, meaning that you must call your local District Veterinarian if you notice lame sheep and under running of the hoof at the heal. The District Vet will look at the proportion of sheep that are affected, and how severely affected they are, to classify the disease. They will then work out a short and long-term plan to minimise and eliminate the disease.

Take great care when restocking that you don't buy foot rot in, especially if purchasing sheep from interstate. Keep any new sheep that you have purchased isolated from the rest of the flock until the end of spring. Ensure your boundary fencing is good and that you check all strays

Foot bathing is a very effective management tool. 10% Zinc sulphate is the most frequently used chemical. To use most effectively it requires a contact time of at least 5 minutes- ideally up to 15 followed by at least an hour of drying time. For more [information see here](#).

Selenium deficiency

Selenium deficiency is a region and property specific problem made seasonally worse in years where there is profuse clover growth. Deficient properties will need to put measures in place to prevent clinical signs of deficiency, such as white muscle disease in lambs and ill thrift in weaners

One prevention option is to:

- Vaccinate ewes 4-6 weeks before lambing with a selenium-containing vaccine or preferably a long acting selenium injection every second year.
- Inject lambs with long-acting selenium at weaning (lasts 12-18 months).

Dermo/ dermatophilosis/ lumpy wool

Dermo particularly affects young sheep and has been noticed this year by some producers in their lambs at lamb marking. It causes hard scabs to form in the wool, or in severe cases a hard shell in the fleece. It is caused by the bacteria *dermatophilus congolensis*, which rapidly spreads when sheep are held in close contact after episodes of wetting.

Outbreaks have been seen this year due to the prolonged wet weather. Some producers have been enquiring about antibiotics to treat these sheep. Most affected sheep will self-cure without antibiotics, but more severely affected sheep where the infection persists at the skin level should be identified and treated at least 2 months before shearing to allow scabs to lift. For more information see [here](#).

Flystrike

Flies will be a major issue this spring. The more proactive you are with flies the better, as maggots drop off and pupate in the soil on your property, to hatch in greater numbers and growth is exponential. Use preventatives and early effective treatment of any strike.

To create a flystrike management plan tailored for your property visit the [Flyboss webpage](#). If you are interested to see if you have emerging resistance issues please participate in the research project, sample kits are available from your LLS office.

Bloat

Bloat has been a big problem this winter and spring. Cattle with bloat present dead or with a distended abdomen particularly on the left flank, and often with a grunting respiration. Younger cattle with less grazing experience are most at risk. A sudden change in diet can cause bloat, but this season it has been caused by the high proportion of clover in the diet >60% combined with inadequate pasture roughage.

Frothy bloat is caused by the entrapment of normal gases by a stable foam that forms with slime that is created by the proliferation of certain bacteria on certain diets.

On introduction to a high risk pasture: start cattle on a bloat prevention before they go onto the pasture, then ideally feed dry hay to fill the rumen and reduce engorgement before letting them on. Closely monitor them that day and daily afterwards until you feel more comfortable.

For long term risk reduction on higher risk pastures this involves using any or all of these three options:

1. Include roughage in the diet in the form on hay.
2. Allow access to an active that destabilises the foam. This is either an oil or a detergent. Alcohol ethoxylate is the active ingredient in most blocks. It can be purchased in pure formulation to treat affected animals or mix with molasses or salt or fed in block formation. They need to consume at least 10 mls of the active daily which equates to around 100 grams of bloat block.
3. Feed loose licks which contains an antibacterial agent such as rumensin® or monensin. This was the active ingredient in bloat capsules (which are unavailable). This product is effective and also gives a production advantage of increased weight gain, but again beware as consumption of them must be adequate, in order for them to be effective.

Enterotoxaemia

Any pastures that are high risk for bloat are also high risk for pulpy kidney, which is why we also advise a booster 5 in 1 vaccination for bloat control, as some bloat losses will be pulpy kidney. Pulpy kidney is caused by circumstances which result in abnormally high growth of the normal gut clostridial bacteria and its resultant toxin. It is associated with rapid changes of diet but also high energy diets.

Rapidly growing weaned or unweaned lambs are at highest risk, especially those on lush pasture or cereal crops. Animals are often found dead or will go down convulse and die quickly.

Pulpy kidney can be prevented through vaccination using a 5 in 1 (or similar) vaccine. To be effectively vaccinated sheep need two initial injections, 4-6 weeks apart and then given booster injections yearly. In high risk situations they need a booster every 3 months. Vaccination of ewes 2-6 weeks prior to lambing will protect lambs until lamb marking.

Pulpy kidney risk is reduced in a similar way to reducing bloat risk. That is adding more fibre into the diet and avoiding sudden diet changes.

The most important pointer that you may or may not be doing, is to not be afraid to give extra boosters to maximise protection of young stock.

South East Worm boss report.

The faecal egg count (FEC results) from the DPI lab this month have shown some higher counts due to a large proportion of barber's pole worm, and larval cultures have shown barber's pole to be present even in some of the lower counts.

Barber's pole worm loves warm and wet conditions, especially when grass is short and green. It causes anaemia and death and has a short life cycle, so problems can escalate quickly. To manage this parasite, it is very important to do more frequent FECs to monitor for a problem (at least every 6 weeks) especially at this time of the year. Drench effectively onto clean pastures, and or use an effective long acting product.

It is also important to monitor for anaemia, through symptoms of weakness or pale gums, and to note that anaemia can be caused by other diseases that can be diagnosed by your vet such as mycoplasma ovis (a blood borne parasite) fluke or deficiencies.

There have been many positive fluke tests in cattle, both pooled ELISA blood results and faecal sedimentation tests. If fluke is present on your property and cattle have not been drenched for fluke during the winter a drench early in the spring is a good idea to control parasite numbers.

There have been a higher number of FECs performed in goats this month and all have indicated a requirement for drenching. Goats are natural browsers of shrubs and if grazing closer to the ground they have less natural resilience to worms. Note that they have a higher metabolic rate to sheep and that you should talk to your veterinarian about altering drench dose rates to ensure goats are effectively drenched.

WATCH YOUR CHOOKS FOR AVIAN INFLUENZA

Mark Doyle District Veterinarian Bega

In these times of a worldwide pandemic it is probably not the news we wanted to hear that we should all be watching our chickens for signs of disease too. Whilst lockdown was going on for people in Victoria there have been outbreaks of avian influenza (AI) in a number of poultry and emu farms in the last couple of months. Whilst they seem to have been contained to Victoria it is important that owners of birds remain diligent, as the virus that causes AI is transmitted by wild birds.

AI is a highly contagious viral infection, affecting mostly birds, including all species of commercially farmed poultry. Australian native and migratory birds including waterfowl can carry the virus, and the virus spreads through contact with infected birds or contaminated materials and objects.

This is not the highly pathogenic influenza strains that have gained worldwide attention – nor is it closely related to those strains. It is in no way related to the current Covid-19 pandemic

Local and district veterinarians are on the lookout, so please notify them if you notice any strange symptoms in your chickens. Signs can include difficulty breathing, watery eyes, nasal discharge, discolouring of the combs, wattle and shanks, swelling of the head, ruffled

feathers, diarrhoea and nervousness, drops in egg production, eggs laid without shells, and sudden death.

Thanks to the work of a local South Coast veterinarian who was aware of what to watch out for I was recently notified of a backyard flock that had such symptoms. With co-ordination between that veterinarian, the landholder and myself we were able to swiftly take samples from the flock and send them for analysis. Fortunately they did not have AI, but they did have another disease called Infectious Laryngotracheitis (ILT).

ILT is another highly contagious respiratory disease of chickens caused by a herpesvirus. It can infect pheasants, partridges and peafowl, but does not normally affect turkeys, ducks or wild birds. Signs include mild breathing difficulties and reduced egg production to conjunctivitis, nasal discharge, sneezing, coughing, gasping, depression and death. Outbreaks require a source of infection such as proximity to or recent introductions of other infected chickens. Transmission can also occur on any other material that comes into contact with chickens including feed and feeders, egg trays, vehicles, contaminated litter, personal clothing, etc.

Please keep an eye on your chickens and other household birds and poultry and get in touch with your local veterinarian or me if you notice anything suspicious.

Biosecurity for poultry owners

Below we outline some steps you can take to keep your poultry happy and healthy, plus help protect the poultry industry.

- Prevent your chickens or poultry from accessing open dams, lakes, creeks or other watercourses where wild birds congregate.

Excluding your birds from these areas reduces the risk of contracting disease from wild birds.

- Quarantine new poultry until you're sure they are disease free

A minimum quarantine period of 30 days is recommended and birds should be housed in an area completely separate to the flock and an area that is not used for any other purpose.

A distance of 10 metres from the main flock is enough to prevent aerosol transfer of most diseases.

Use separate food and water dishes and food storage containers to those used in the main run.

Purchasing from accredited, reputable sources means you can have greater confidence that you're not bringing home pests and disease.

- Separate poultry, including feed and water, from wild birds

Housing and intermingling with wild birds is one of the key risks for the introduction of diseases like avian influenza. Wire mesh of 10mm x 20mm will exclude most wild birds, including small birds like sparrows.

It's important to remember that wild birds will be especially attracted to feed and water so take extra precautions to ensure they can not access these areas.

- Practise good hygiene at all times

Regularly clean and disinfect feed and water containers, don't share equipment with other birdkeepers unless it's been cleaned and disinfected, and clean concrete floors, walls and aviary wire regularly Wash hands after handling animals and birds, and before preparing or eating food or smoking.

Unwashed hands should not be put near the mouth.

- Minimise visitors to your poultry. If people do visit ensure they wear clean shoes.

For more information on keeping poultry visit www.dpi.nsw.gov.au/animals-and-livestock/poultry-and-birds or <https://www.australianeggs.org.au/news/biosecurity-for-backyard-chooks/>

COCCIDIOSIS IN CHICKENS

Lou Baskind – District Vet Braidwood

One of the most evocative scenes in spring is that of little baby chickens. You may have received them as day-olds from a hatchery, or you have attentively tended to them in an incubator, or you have a dedicated hen who has sat staunch and broody. Here they are, with all their youthful awkwardness, bringing with them the joy of a new spring.

But with that youth comes a naïve immune system, and these little creatures are vulnerable to disease. Careful management and husbandry are necessary for them to thrive. Your meticulous attention will result in both high animal welfare and improved production – leading to good survival rates and successful egg layers, meat birds, show breeders or backyard companions – whatever your venture.

One disease in particular strikes fear in the hearts of most who raise chickens. **Coccidiosis** (commonly known as “cocci” or “coxy”) is a disease of the gut caused by a microscopic intracellular parasite. This parasite causes severe intestinal damage resulting in diarrhoea with blood, and considerable pain. The chickens become weak, pale, ruffled and listless. Groups of chickens might have their heads sunk in towards their necks, huddled together and shivering. Cocci can cause death, often rapidly.

Chickens at risk of cocci are those that have never been exposed to it before.

The group of most concern is chickens between 3 weeks and 5 months old. In some unhygienic and stressful environments, it has been reported in chickens as young as 1 week of age. In most cases, once chickens get to laying age, they will have developed a level of resistance.

The cocci parasite can cause severe outbreaks because it has a rapid lifecycle and very high multiplication rate. The chickens swallow the parasite eggs, called oocysts [oh-uh-sists], which have spores inside them. These spores infest the cells of the intestine wall. They form a colony that absorbs nutrients from the chicken’s cells. This colony then explodes the cell, releasing *many thousands* of “daughter-parasites” that then invade other intestine wall cells.

This extensive damage causes pain and prevents the chicken absorbing important nutrients and fluids. The result is bloody diarrhea, dehydration and depression. The damage also gives an opportunity for bacteria to invade.



A young chicken with signs of coccidiosis

The “daughter-parasites” take on male or female forms and reproduce to create more oocysts. The oocysts are expelled in the droppings. The oocyst has a thick casing which makes it very resistant to temperature and disinfectants – in fact studies have shown oocysts may still be present in soil where chickens have run for 9 months after the chickens were removed.

When the oocyst first forms it is not able to cause infection straight away – it needs to develop spores, a process that takes place outside of the chicken in the droppings or soil. This happens most rapidly at temperatures between 20 – 30°C. **In spring and early summer, not only do we have lots of susceptible young chickens, but simultaneously the parasite is swiftly gaining pace in development.**

As chickens grow and their immune systems develop, they can gain resistance to this parasite. We can't eliminate cocci in the environment so **the answer is to keep the level of cocci low enough** that the immune system can start to recognise the parasites and build defences without becoming overwhelmed.

7 steps to controlling coccidiosis in young chickens:

1. Dry up damp areas of the yard or brooder

The cocci parasite is most comfortable in shaded, mild to warm, moist soil. It doesn't like to be dried out or reach temperatures above 37°C.

- If you have damp areas of the yard find any method to dry them out – improve drainage or apply lime, crusher-dust, gravel, sawdust etc.
- Repair leaking waterers and taps.
- If you have a brooder (a heated house for the little ones) sprinkle a new layer of dry substrate/litter on top, or scoop out and replace damp litter, once or twice daily. Monitor closely that the litter is not damp.

2. Avoid crowding

- As tempting as it is to hatch or buy more and more chickens (we call it "chicken maths"!) crowding is a crucial risk factor for coccidiosis. Be sensible about how many chickens you can maintain in the space you have.

3. Limit exposure of young chickens to any chicken droppings

- Use feeders and waterers that exclude chickens from climbing in on top of the feed and defecating in there. Feeders that have holes for access, and nipple-style waterers are ideal and can be bought or made.
- Do not feed on the ground – this allows oocyst-containing soil to mix in with feed and get inadvertently swallowed. For this reason, throwing scratch-mix or scraps is best avoided until chickens are adults.
- In brooders remove droppings, or cover them with fresh litter, twice daily.

4. Don't move cocci around on shoes and equipment

Shoes, clothing or equipment that has soil or droppings attached can harbour and move oocysts. This is a common way that chickens become exposed to a new strain of cocci.

Wash your hands well with soap and water before tending to chickens.

If tending to different age groups, start at the most vulnerable (the youngest) and move through the age groups to adult chickens.

Sick chickens should be removed from the flock and tended to last.

After tending to the chickens wash off soil and droppings from shoes and equipment and leave in the sun to dry well.

5. Stop visitors from introducing new strains

The strains of cocci carried on visitors' shoes might be different to what your chickens have been exposed to before and they may have no immunity.

- Have some clean slip-on garden clogs or gumboots available for visitors to use on your property.

6. Consider feed or drinking water-based preventatives

Medicated feeds and drinking-water preventatives impede the development of the cocci parasite. They hold it at a level that prevents disease but exposes the chickens enough to allow them to develop some immunity

- Commercial chick-starter and pullet feeds containing these “coccidiostats” are a useful addition to your control program.
- Do not rely on these medications alone. Preventative medications cannot be used as a band-aid for unhygienic and crowded conditions.

7. Treat quickly

If you have good reason to suspect coccidiosis you must act fast. The disease progresses very quickly. Amprolium is a medication often used as a preventative but can be a treatment if given at a different dose. Follow the label directions carefully. Baycox (Toltrazuril) may be superior in severe infections but is expensive and requires a veterinary consult and prescription.

ZOONOSES - SALMONELLA - ANIMAL DISEASES THAT CAN INFECT YOU

Henry Clutterbuck – District Veterinarian Goulburn

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.

Infection with *Salmonella* spp. bacteria is referred to as salmonellosis. Salmonellosis affects a wide variety of animals including humans. It has been flagged a major public health concern in many countries. The clinical presentation can range from a healthy chronic carrier state to acute or chronic enteritis to septicemia.

Symptoms in livestock

Salmonellosis has been recognized in all parts of the world but is most prevalent in regions with intensive animal husbandry. Enteric, septicaemic, and reproductive diseases are all possible manifestations of Salmonella infection. Reproductive losses are only of concern in sexually mature females, enteric disease can be seen in susceptible livestock at any age from true neonates through adulthood.

Symptoms in humans

Symptoms of salmonellosis include headache, fever, stomach cramps, diarrhoea, nausea, and vomiting. Symptoms often start 6-72 hours after infection. Symptoms usually last for 4-7 days, sometimes much longer.

Transmission

Salmonella is mainly spread to humans when they eat under-cooked food made from infected animals (that is, meat, poultry, eggs, and their by-products). Spread by 'cross-contamination' occurs when *Salmonella* contaminates ready-to-eat food: for example, when food that will not be cooked further is cut with a contaminated knife or via the hands of an infected food handler. *Salmonella* can spread from person-to-person via the hands of an infected person. It can also be spread from animals to humans.

Diagnosis

Diagnosis is done through your GP or hospital by testing faecal samples for *Salmonella*.

Treatment

NSW Health guidelines don't indicate use of antibiotics in lower level uncomplicated cases. Supportive care for gastrointestinal symptoms is crucial. For more complicated cases hospitalisation and treatment

may be warranted. If you suspect that you have contracted salmonellosis please contact your primary care physician.

Prevention

The most important message is without doubt personal hygiene. Washing of hands after handling any animal product is vital as the bacteria is spread by ingestion of infected material. Thorough cooking of meat products especially poultry is also important.

More information:

<https://www.health.nsw.gov.au/infectious/factsheets/pages/salmonellosis.aspx>

This article did not deal with the current Salmonella Enteritidis outbreak. More information can be found here:

<https://www.dpi.nsw.gov.au/animals-and-livestock/poultry-and-birds/health-disease/salmonella-enteritidis>

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