Animal Health Update

South East Local Land Services

March 2021

SOUTH EAST DISEASE SURVEILLANCE RESULTS

Alex Stephens District Veterinarian Yass.

Your local District Vet can help you to investigate, diagnose and manage herd health or mortality issues in your herd or flock. They provide impartial advice and can assist you with disease management and your biosecurity plan. Each month we provide this report of diseases and issues detected and managed in the last month by producers, their veterinarians and animal health advisors.

Heavy worm burdens causing deaths: Haemonchus (barber's pole worm) has been causing deaths in mature sheep, lambs and weaners right across the South East. As conditions have been perfect for this worm and scour worm numbers to increase rapidly, deaths have been seen when sheep have been drenched with an ineffective drench or not drenched and rotated to clean pastures. See the wormboss report below for more information, but the key point is **test your sheep now with a faecal egg count (FEC) to avoid losses.**

Pestivirus (BVDV) has been diagnosed as the cause of calves born with limb deformities. It is a complex disease, and every year we diagnose persistently infected calves (PIs). The virus is circulating all the time in and out of herds and causes disease when pregnant cows experience the virus for the first time when in the first trimester of pregnancy. It causes either abortion, still born calves, or calves born that persistently shed the virus (PIs) until they die prematurely, usually before 2 years of age. It is a real profit thief. Preventing the virus from infecting naive pregnant cows is the key, through use of Pestigard® vaccination, biosecurity and identification of PI calves. Testing calves that you suspect are PIs is simple and inexpensive by sending plucked tail hairs in an envelope to the laboratory. Test kits are available from Local Land Services offices or call your local District Vet to discuss control options.

Johne's disease has been diagnosed on multiple properties in sheep recovering from the drought on the Monaro. These animals became obvious as the season improved, weight gain occurred in the rest of the mob, yet the affected individuals remained obviously poor. Although the infection is acquired in infancy the disease lies latent until stress, such as drought times, causes the immune system to break down and disease results. This disease is prevented in the long term via vaccination of lambs at lamb marking with Guidair®.

Digestive problems on grazing brassica: Grazing brassica crops have provided excellent nutrition for both cattle and sheep. Problems usually occur on introduction, beware bloat, pulpy kidney and nitrate poisoning. A range of other problems can occur 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.

Bovine respiratory disease has been causing losses on the coast in dairy cattle as well as in beef cattle weaners being backgrounded elsewhere in the South East. Prompt investigation of mortalities is key in early identification of this disease and then work with your veterinarian to identify and treat sick animals as soon as possible. See more information in the article below.

Zinc supplementation has been started in many dairy herds on the coast due to rising spore counts in pastures. In a Dairy Australia led and funded program, **Facial eczema** spore counts are monitored throughout the risk period for Facial Eczema You can find the results of those spore counts on the Dairy Australia website. The correct levels of supplementation of zinc are vital as there is a very narrow band of effect before toxicity can occur. Speak to your local district vet about the risk in your area and relative need for supplementation.

Lead toxicity: Accidental access to lead is still one of the most common forms of inorganic chemical poisoning in farm animals. Prevention is the best cure. The most common source is old lead batteries, but there are many other varied sources such as old lead paint and licking the ash from burnt painted objects, eating linoleum and sump oil. Cattle are most at risk as they like to taste new finds. Symptoms may be finding dead stock, or those with unusual nervous signs or blindness. Stock exposed to abnormal lead intake must not be slaughtered for human consumption until levels return to normal. It is very important to talk to your District Veterinarian if you suspect lead poisoning.

Deaths due to phalaris staggers: Phalaris is a popular perennial grass across southern Australia. Frustratingly, some varieties of phalaris can produce potentially poisonous toxoids some seasons. The most usual form of poisoning is 'phalaris staggers'. Phalaris can also cause a sudden death syndrome. Symptoms include depression, anorexia, and uncoordinated gait, collapsing, convulsions and death. This month toxicity has resulted in sudden deaths in weaner lambs, sparking a warning for other producers to take care on known risky pastures. One of the toxic alkaloids inhibits the ability of the animal to metabolize nitrogen. **Highest levels of the toxoid are found in the leaf blades of the first autumn regrowth after heavy grazing.** Toxicity is worse when soils are cobalt deficient and higher in fresh shoots which contain a high nitrogen load. Stressed plants will also temporarily have higher nitrogen levels. Those plants that are quickly absorbing soil nitrogen from recent rain and as plants recover from grazing pressure are more inclined to be toxic. There is also an animal factor in toxicity, when animals are older and used to a higher nitrogen diet they are less at risk. Younger animals changing from a low nitrogen diet- or animals which have been fasted are most at risk. Risk is best managed by ensuring certain risky phalaris pastures are not grazed too heavily this autumn, and by being aware of the risk when introducing new mobs.

BOVINE RESPIRATORY DISEASE AND MANNHEIMIA HAEMOLYTICA (MH)

Mark Doyle District Vet Bega and Charlie Seppelt Sydney University Veterinary student

What is it?
Bovine respiratory disease (BRD) is a major disease process in cattle with numerous causative factors and significant implications for the industry. It is the most common cause of disease and death in Australian feedlot cattle and is caused by a combination of stress and disease-causing viruses and bacteria. We also see BRD in other intensive situations such as dairies and have had a recent outbreak in some coastal dairy herds. *Mannheimia haemolytica* (MH) is the primary bacteria implicated in BRD cases and an understanding of how it causes disease and how to recognise it is imperative in controlling and preventing outbreaks of BRD in cattle herds.

How can I tell if my cattle have it?
M haemolytica ordinarily lives in animals' throats. It then takes advantage of a stressed animal with a weakened immune system and lungs damaged by an initial viral infection and establishes

infection. The bacteria expresses virulence factors that promote the progression of disease. They can infiltrate and destroy active parts of the animals' immune system, reducing its ability to clear the bacterial infection and contributing to the development of an awful respiratory disease - purulent fibrinous pneumonia.
BRD is likely to produce typical signs of respiratory disease such as: depression, lethargy, extended head, droopy ears, discharge from the eyes or nose, coughing, rapid shallow breathing and death. While a tentative diagnosis can be given by observing the animal, a more definitive diagnosis can be pursued by taking nasal swabs, or samples from an animal's trachea and lungs, or a postmortem investigation.

What do I do if they have it?
The important thing to do is to identify sick animals as early as possible, through clinical signs and elevated temperature. Isolate them from other members of the herd as soon as possible and instigate appropriate treatment in consultation with your veterinarian.

How is it treated?
Previous methods of treatment and prevention involved the use of antibiotics and traditional bacterin vaccines. These approaches have proven less effective with time. Antibiotics weren't used properly, the bacteria developed multiple resistant strains to the antibiotics and evidence has shown that some of the older vaccines did not provide adequate protection.
Antibiotics can still be an effective mode of treatment if it is used correctly and the MH is susceptible to the antibiotics used. A more appropriate approach may include the use of modern vaccines which are better designed and are able to provide 50-70% efficacy in the prevention of *M haemolytica* pneumonia.
For a more holistic approach, it is important to remember that there are multiple underlying causes of BRD which means that there can be several factors that need to be managed to prevent infection. This may involve getting more certain diagnosis for targeted treatment, the use of appropriate vaccines and therapeutic intervention, and the improvement of management practices to reduce stress in the animal's environment.

What next?
Work with your local private vet and/or DV to identify risk factors and what the most likely potential causes are on your farm and then manage those risks.

Tactics such as:

- selection of and appropriate administration of effective vaccines
- "backgrounding" cattle before entering a feedlot
- ensuring adequate hydration
- avoiding weather extremes or dusty conditions
- -gradually altering feed changes
- -minimising unnecessary transport and mixing of cattle
- good pestivirus management plan
- good husbandry techniques
- good ventilation in housed environments
- early identification, isolation and treatment of sick animals.

WORMBOSS MONTHLY REPORT

Lou Baskind – District Vet Queanbeyan - Palerang (Braidwood)

Rainfall and temperatures throughout January and February have been ideal for pasture growth and worms.

These conditions are very suitable for our three main sheep and goat roundworms' eggs – barber's pole (*Haemonchus contortus*), black scour worm (*Trichostrongylus spp*) and brown stomach worm (*Teladorsagia [Ostertagia] circumcincta*) – to hatch and become infective larvae.

Over summer, most sheep and goat producers in the South East have focussed their control on barber's pole worm. Many producers chose a closantel and mectin combination treatment as their summer drench hoping to achieve persistent barber's pole control and to limit pasture contamination with barber's pole eggs. Closantel is a narrow-spectrum drench, providing control of barber's pole worm but not scour worms. Resistance of scour worms to abamectin (commonly the second chemical in closantel combination drenches) is common, with brown stomach worm resistance thought to occur on 30% or more of farms in non-seasonal to winter rainfall areas of south-eastern Australia[1].

A risk with this approach is that black scour and brown stomach worm are overlooked until suddenly scouring, weakness, collapsing and deaths occur, and emergency drenching is required. At that point there will already have been significant production losses.

I recommend a WormTest Gold *with Larval Culture* to get an overview of the relative proportions of the three worm species on your property. At the EMAI State Veterinary Laboratory, this test costs around $80 ex GST.

Another consideration with closantel is its persistent duration of effect. Persistent treatments increase selection for resistance. This is because as levels of the chemical drop over time, worms are more likely to survive the chemical. They then pass on genetic survival traits to the next generation of worms.

Recent WormTests have shown resistance of barber's pole worm to closantel on some properties. One local property had an average count of 1180 eggs per gram (96% *haemonchus*) in merino weaners when tested six-and-a-half weeks after drenching with a closantel/abamectin combination. As label claims assert a six-week sustained activity, this did not immediately alert the producer to a concern. However, this mob was subsequently drenched with the same product again, and 14 days into the expected six-week protection period the mob had an average of 1580 eggs per gram (95% *haemonchus*). Effective drenches tested 14 days after treatment should have a worm count 98% lower than the pre-treatment count.

Ideally one should never drench repeatedly with a persistent treatment. An exit drench (also called a "tail cutter") should always be given 2 weeks after the end of the protection period of a persistent drench. Exit drenches should be short acting drenches of a different drench group to the persistent chemical. Levamisole-based multi-active drenches are a good option, unless you have known barber's pole resistance to levamisole on your property. If paddock contamination with worms is a problem, seek advice from a veterinarian or advisor before repeating long-acting treatments.

I cannot stress enough how important it is for you to monitor your worm levels now with a Faecal Egg Count (FEC) and worm type/ larval culture and then continue to monitor monthly into autumn.
Worm counts are very variable farm to farm and paddock to paddock, with average counts ranging from 100 to 7000.

Rainfall and temperatures are ideal for worm numbers building, and sheep may be condensing their grazing into patches of pastures where it is short and green. Worm numbers can increase rapidly in these conditions. Conditions will continue to be ideal into the autumn meaning that we will need to utilise effective drenching and pasture rotation to minimise the build-up of large larval numbers on the pasture.

Now is also the time to monitor for fluke, note that you must request this test separately with your FEC.

This autumn after a full year of full or nearly full soil moisture profiles, fluke numbers are really on the increase, as evidenced by positive samples at the lab. Fluke can cause bottle jaw, anaemia, weight loss, diarrhoea, and death, and are best monitored for and controlled before they cause liver damage.

Cattle producers might ask the vet to collect some (10) bloods for pooled fluke ELISAs at pregnancy testing to gauge the need for fluke control in the cattle.

Sheep producers can also use the blood test or request the faecal test when screening for worms.

[1] https://www.dpi.nsw.gov.au/animals-and-livestock/sheep/health/internal-parasites/drench-resistance-sheep-worm

AFRICAN SWINE FEVER

New variants of African swine fever have emerged in Asia raising the biosecurity threat to Australian pig producers.These new variants show less obvious signs of disease, making it more difficult to detect and control should it be introduced. This puts greater emphasis on the importance of border control, with illegally imported pork products through the mail and in baggage the highest risk and now the highest priority. The Australian Pork Industry has also been working with the DPI, District and private veterinarians, running intensive refresher courses. These courses and sampling days ensure that vets and those that work in the industry are equipped with the skills they need to quickly recognize disease and collect appropriate samples. The South East veterinary team have been participating in this preparedness.

What can you do to help protect our pig producers?

- Make efforts to reduce feral pig numbers on your property.
  contact your nearest Local Land Services biosecurity team for advice.
- Never allow feral or domestic pigs to access your rubbish. This rubbish may contain swill or meat products which is the highest risk of ASF entering Australia.
- Close all on farm rubbish pits.
- Report any concerns you have re unprotected rubbish bins in regional towns, picnic areas and open tips etc. to council or Local Land Services.
- Domestic pig pets must NEVER to be fed swill and must be protected from access to feral pigs.
- Each potential risk we close makes it safer for our pork industry.

Stop! Do not feed swill to your pigs.

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