

Animal Health Update

South East Local Land Services

September 2019

LOCAL DISEASE WATCH

Alex Stephens District Veterinarian, Yass.

Temperatures have warmed substantially, coincidentally co-ordinating with the first days of spring. Lack of soil moisture is limiting pasture growth across much of the South East area. Producers are again assessing stock numbers, pasture growth predictions, feed on hand and stock water levels heading into a drier spring.

District Veterinarians have done a number of investigations this month as well as supporting the RSPCA in assessment and response to a number of animal welfare concerns.

Investigations have shown Bovine viral diarrhoea virus, aka BVDV or **Pestivirus, to be the cause of significant infertility (early abortions)** on one beef cattle property **and also the cause of multiple deaths on another property in yearling steers**. These steers had been infected in utero while their mothers were pregnant and were born persistently infected (PI) with the virus. They eventually succumbed to and died from mucosal disease at around 12 months of age. This disease is perpetually around and cycling in and out of herds. Producers can protect their herds against this disease by using strict biosecurity or by vaccination using Pestigard®. For more information see:

https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0015/226041/Bovine-pestivirus-infection.pdf

Sudden death investigations have shown a couple of cases of Redgut in sheep. Although this disease is more commonly seen in sheep on pure lucerne stands, it was seen in these cases in sheep on short predominantly clover pastures. The disease is caused by rapid movement of ingested food into the hind gut. Minimal rumen fill and increased gas build up in the hind gut results in a gut torsion resulting in sudden death. The disease is prevented by ensuring adequate roughage in the diet. **Cases of pulpy kidney were also seen in young lambs** where the ewes had not received a 5 in 1 vaccination.

There were also some **reports this month of bloat and deaths in cattle on crops**. In all three cases the cattle had been on the crop for some time, it was an important reminder that as conditions change so does the bloat risk of pastures and crops. Bloat prevention options are outlined in the Primefact 'Bloat in cattle and sheep': https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0009/111411/Bloat-in-cattle-and-sheep.pdf

Lamb marking is underway and while the ewes are in the yards this can be a very good time to monitor for reproductive diseases. One disease that had been discussed a lot, due to the vaccine now available is campylobacter or 'vibrio'. **Where ewes have been scanned in lamb but then lamb marking results are disappointing discuss this with your District Veterinarian. It may be worth testing**



the ewes at lamb marking for evidence of infection with campylobacter.

For more information see:

<https://centrallandlands.nsw.gov.au/livestock/livestock-advice/sheep/abortions-in-sheep-the-silent-killer>

Two to three month old lambs on an oats and annual grass pasture showed progressive signs of stiffness and lameness and then went down with a severe weakness. **The cause was found to be selenium deficiency.** For more information on the risks of selenium deficiency in sheep and cattle, see the article below.

An investigation is ongoing into some unusual symptoms in newborn lambs. The lambs were born alert and keen to drink, but wobbly and unable to stand. **Autopsy investigation has found the cause to be a malformation of the brain.** A genetic cause is possible, and nutritional and infectious causes are also being investigated.

YASS BRUCELLOSIS OVIS SURVEILLANCE PROJECT Alex Stephens and Fiona Kelk District Veterinarians, Yass

Ovine brucellosis (OB) is an infectious bacterial disease of sheep caused by *Brucella ovis*. OB occurs in all districts, in any sheep breed and causes considerable economic loss in many flocks, through ram wastage, low lamb-marking percentages and extended lambing periods. **Ovine brucellosis is spread by bought in infected rams, or straying infected ewes or rams during joining.** OB is thought to be at a relatively low prevalence in the South East but actual prevalence is unknown. Every year positive flocks are detected in the area. Certainly, due to the fact that it is easily spread by straying rams, where it has been detected on one property there are often a number of adjoining land managers that are also affected. As OB is not a notifiable disease, these producers may not be aware of their risk.

OB may have been introduced into your flock and **it is important to maintain yearly surveillance for this disease.** Yass District Veterinarians are keen to understand the actual prevalence of OB in the local area and help producers protect themselves from this disease. For this reason they have initiated a surveillance project to test at least 20 flocks across the district and to raise awareness of this disease. **OB should be suspected in any case where lambing performance is below par, and can be easily investigated with an examination of the ram mob.** Scrotal palpation is a good screening test and can be followed up with blood testing if abnormalities are found. While blood testing is usually performed by your private or District Veterinarian, scrotal palpation is a skill that can be learnt by all sheep producers so that they can monitor yearly for this disease when checking rams annually pre joining.

Any producers wishing to participate in the project **to have staff learn the skills required to monitor yearly for this disease** and have your ram flock checked for this disease can contact their local District Veterinarian or the Yass office.

For more information about Ovine brucellosis see:

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/145824/Ovine-brucellosis.pdf

SELENIUM DEFICIENCY IN CATTLE AND SHEEP IN THE SOUTH EAST

Lou Baskind District Veterinarian, Braidwood

Selenium deficiency can cause production losses and poor growth in young livestock, as well as White Muscle Disease (a progressive syndrome of stiffness, weakness, collapse and death) and other ill-thrift syndromes. It also plays a role in fertility and in the immune system of cattle and sheep, and in wool growth in sheep.

Selenium is an essential trace element. As the word “trace” suggests, selenium is required in very small amounts in the diet. In the body, selenium forms an enzyme that acts as an important antioxidant, protecting cells from the damaging molecules known as free radicals. Despite the tiny amount needed, the absence of selenium can have serious impacts on normal health and growth. On the other hand, selenium is the most toxic of the essential trace elements, and over-supplementation can cause poisoning.

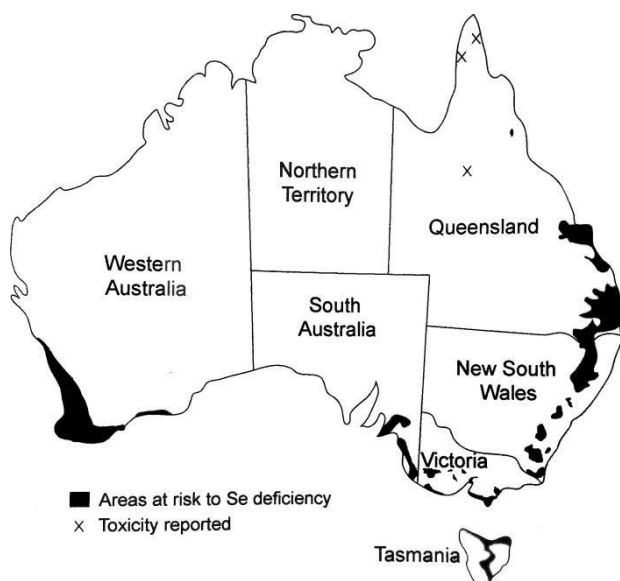


Fig. 13.2.8 Areas of Australia in which Se deficiency occurs in livestock. (Redrawn from Peverill *et al.*, 1999)

Parkinson, Vermunt and Malmo, 2010

Insufficient selenium levels in cattle and sheep occur as a result of a complex soil-plant-animal relationship. The selenium is present in the soil, taken up by the plant, and eaten by the animal. The following factors can make it more likely that livestock could have insufficient selenium levels:

- granite-based or sandy soils which are typically low in minerals (soils of the Southern Tablelands are known to be low in selenium)
- acid soils
- Higher rainfall areas of Australia, or periods of high rainfall
- time of year, with levels being lower in spring and higher in autumn
- clovers in the pasture, for several reasons:
 - further acidify soils
 - contain high levels of polyunsaturated fatty acids which lead to more free radicals and so a higher requirement for selenium in the animal
 - promote rapid animal growth and so a higher requirement for selenium in the animal
 - shallow-rooted and take up less selenium
- young animals (growth has a higher requirement for selenium)

- any practice that intensifies and improves pasture production such as application of fertilisers, cropping or sowing
 - promotes more plant growth and thereby “dilutes” the available selenium from the soil
 - Superphosphate fertilisers affect the proportion of clovers
- high stocking rate
- change from drought conditions to lush pasture growth.

Selenium can be supplemented in a variety of ways. Several common husbandry products such as worm drenches and vaccinations include a small amount of selenium. These products can top-up marginal selenium levels for up to 12 weeks. There are also stronger products in injection or pour-on form, and long-lasting products in injection or pellet form that can supplement animals for up to three years. Supplementing breeding females passes on selenium to the foetus and through the milk. Selenium can also be added direct to pasture or mixed with fertilisers.

Mineral lick blocks contain only tiny amounts of selenium to avoid the risk of poisoning if the animal consumes too much of the block. Lick blocks are unlikely to protect from a deficiency.

If you have several of the risk factors listed above, it is a good idea to investigate further with blood testing. It is recommended that you test in late winter or early spring and that a group of young growing stock are tested. Testing a minimum of five and up to 10 animals will give good confidence in the results. The stock must have had no selenium supplements for at least 12 weeks prior to the test. That includes supplementation to the mothers of young lambs and calves.

If you feel your risk is not as high based on the above list, you could try the selenium-boosted vaccination or drench products and observe for improved growth and condition. Never use this trial method with injections, pour-ons or pellets due to the risk of poisoning and killing stock. Remember to only use **one** selenium-boosted product per 12 weeks if not monitoring with blood tests, as the combination of products could cause poisoning. Selenium poisoning causes abdominal pain, drooling, blindness, paralysis and death.

Certain supplementary feeds may be formulated with selenium, and as such, stock that are being hand fed may have adequate selenium levels. Contact the manufacturer of the feed to clarify.

For more information, or to discuss the particular risk factors for selenium deficiency in your livestock, please feel free to contact your Local Land Services District Veterinarian.

1080 AND PROTECTING YOUR DOG

Alex Stephens District Veterinarian Yass

The South East Feral Fighters program has been extremely successful. Last financial year a total of 27,629 baits were laid on 840 properties for foxes. While baits can be laid at any time of the year most baiting is done in autumn and prior to lambing to minimise fox numbers and maximise live lamb numbers.

Whenever 1080 is used steps are taken to reduce the risk of unintentional poisonings. All 1080 users must have a current AQF3 or have done the LLS Vertebrate Pest Training course. The user then signs an indemnity form and pesticide record agreeing to abide by the conditions of use. They must notify all land managers within a 1 km radius prior to the baiting commencing and must display signs of current 1080 use on their gateways.

We are committed to ensuring that unintentional poisonings are absolutely minimised. **The best way to prevent dogs from being poisoned is by ensuring they are kept tied up, muzzled or in an enclosure where they will be safely away from any source of poison.** It is important to do this for

the entire period of time that the baits are out and then collect up all untaken baits after seven days for burial in a hole at least 50cm deep. Domestic dogs are potentially at risk of poisoning because, like foxes, they are very susceptible to 1080. As there is no specific antidote, 1080 poisoning treatment in dogs has a low success rate, so prevention is the best option.

Accidents do happen, plan stock work to avoid working dogs in areas near where baits have been laid and use muzzles if you have to. Although baits should be buried, it is possible that foxes may carry and drop baits and a few baits will move from the place that they are laid. This is why it is not advisable to allow dogs to be in an area within a 1,000m of where baits have been laid.

If you are suspicious that your dog has just ingested a bait, the sooner you can induce the dog to vomit the better. Due to the distance of many producers from their local veterinarian it may be best to try to induce vomiting in your dog immediately before taking directly to the vets. It is recommended you contact your vet for advice, and to inform them of your impending arrival.

How can I make my dog vomit?

Some household items can be used to induce vomiting in dogs, but all should be used with some caution and only in a case of emergency as most are caustic. **Do not attempt in a dog that is already showing symptoms.** Vomiting should be induced immediately after you suspect your dog has eaten a bait, not in response to seeing signs of poisoning.

The best emetic (or rapid vomit inducing agent) that could be safely carried in your ute glovebox would be a packet of **washing soda crystals** (sodium carbonate) available from a supermarket or a pharmacy. Use 2-4 crystals orally, given as you would a pill. Do not use laundry detergents or powders.

Signs of 1080 poisoning may include the following:

Anxiety, hypersensitivity, failure to respond to the owner, frenzied behaviour, uncontrolled urination and defecation, convulsions, fitting and seizures, difficulty breathing and coma.

Suspect poisonings:

The signs seen in 1080 poisoning can be seen with other poisons and veterinary conditions. It is important that if you suspect 1080 poisoning in your pet that it is tested for appropriately by your local or District Veterinarian and the EPA contacted if there are concerns about any inappropriate 1080 usage.

For more information see:

<https://www.pestsmart.org.au/first-aid-1080-and-your-dog/>

SURVEY – NSW SHEEP PRODUCERS' PERCEPTIONS ON LAMB MORTALITY & PREGNANCY SCANNING

Are you a sheep producer within NSW? If so, you're invited to complete a short research survey regarding your perceptions on lamb mortality and the benefits and costs of pregnancy scanning.

The survey aims to provide insight into the low adoption rates of pregnancy scanning for multiples by examining producer perspectives and characteristics on both sides of adoption. The findings of the research will be used to determine the major barriers to adoption and where targeted



extension efforts would be most beneficial to increase the adopting of pregnancy scanning for multiples. No personal information will be collected, and all responses will remain anonymous. The survey will take approximately 10-15 minutes to complete.

This survey is being circulated on behalf of student Jazmine Hobbs who is completing a Bachelor of Agribusiness with Honours degree at the University of New England, Armidale, NSW. Jazmine is conducting this research under the supervision of Associate Professor Stuart Mounter.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE19-176 Valid to 22/08/2020).

Link to the survey:

https://unesurveys.au1.qualtrics.com/jfe/form/SV_2mn8Oyp3qVGRAJ7

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