

# Animal Health Update

South East Local Land Services

May 2021

## SOUTH EAST MONTHLY 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.

**Grass tetany** was found to be causing deaths in a mob of older Angus beef cattle with 6-month-old calves at foot grazing short lush green grass. For more information on this disease see the article below.

**Pregnancy toxemia** caused deaths 2-4 weeks prior to lambing, in well-conditioned twin and triplet bearing ewes. On one property this was caused by an outbreak of pink eye which interrupted the grazing of the ewes. On another property there was a case in triplet bearing ewes, caused by harsh weather. On a third hypocalcemia was an inciting cause. Read more about this disease in the article below.

Ewe deaths were seen on a property where the weight of the heavy twin bearing gravid uterus caused **spontaneous vaginal rupture** with resultant gut herniation and rapid progression to death. This is a very rarely seen disease thought to be a result of the great season creating large heavy lambs and a very heavy uterus.

**Barber's pole worm** was found to be causing anaemia and deaths in a mob of wethers due for drenching. These sheep did not display the classic bottle jaw signs but instead presented with weakness and death.

Bottle jaw is best investigated with faecal egg counts for worms and fluke, to rule out these diseases, where these are negative and weight loss is noted **Johne's disease** should be ruled out with a test or a postmortem. **Ovine Johne's disease** has been diagnosed on a few properties this month, where persistent weight loss was investigated.

**Pink eye** has been causing eye disease requiring management in both cattle and sheep properties.

**Flystrike** in sheep has persisted very late into autumn this season caused by the rainy weeks followed by warm weather.

**Selenium deficiency** was found to be the cause of retained foetal membranes in a herd of beef cattle. Selenium deficiency can cause immunosuppression and depressed fertility in cattle.

**Bovine respiratory disease complex** occurred in a mixed group of recently purchased weaner calves. More than 20% became sick requiring treatment and 2.5% died. This is a

multifactorial disease with stress factors such as weaning, viruses and comingling playing a large part when it strikes in the backgrounding industry.

**Pestivirus** caused a 15% loss of pregnancies in a batch calving dairy herd along with at least 8% of the calves born to that batch being born persistently infected (PI). Vaccination against this disease using Pestigard® might seem expensive but can be regarded as good long-term insurance, as when this disease strikes, as it moves in and out of naïve herds infecting pregnant cows, it causes a large financial hit.

**Footrot** in sheep has continued to require a large amount of the District Veterinarian time. Feet did not really dry out in the summer and then conditions in autumn have been suitable for spread in many regions. Lameness investigations are being conducted as well as trace forwards, trace backs and neighbour inspections around infected properties. We also assist producers with the creation and implementation of their eradication or management programs.

## **GRASS TETANY**

**Nicole Romness and Bruce Thompson – 4<sup>th</sup> Year University of Sydney**

### **What is it:**

Grass tetany, otherwise known as hypomagnesaemia, is a fatal metabolic disorder in ruminants associated with low levels of magnesium in the blood. Despite the primary cause being low magnesium in the diet, high concentrations of sodium and potassium in the forage are known contributing factors.

### **Causes and Who is at Risk:**

Grass tetany is a multifactorial disease. High risk conditions for grass tetany include:

1. Pasture: animals grazing grass dominant pasture or lush cereal crops, animals grazing grasses with high moisture content resulting in increased gut transit time and decreased absorption, animals recently removed to different paddock
2. Soil: acid sandy soils, heavy use of nitrogen and/potash fertilisers (high sodium and potassium levels interfering with magnesium absorption)
3. Animal: cattle are the most susceptible but is also reported in sheep and goats. Over-represented classes of cattle include:
  - a. Older cows with calves during winter and spring
  - b. Older cows grazing lush grass-dominant pasture
  - c. Dairy cows in peak lactation
  - d. Thin or overweight cattle
  - e. Angus cattle and associated cross-breeds.

### **Diagnosis**

Diagnosis is typically based on clinical signs, history and environmental factors. Blood testing can also be conducted to confirm a diagnosis. Signs include incoordination, excitation, convulsions and sudden death. Heightened aggression has also been reported in some cases which can be a useful sign to differentiate between grass tetany and disorders that cause similar signs.

### **Treatment**

Treatment of grass tetany involves supplementation with magnesium. Injections of calcium and magnesium in the form of a 4-in-1 flow pack under the skin work to quickly correct the disorder. Injection is then followed up with oral supplementation of magnesium which is available in products such as lick blocks, slow release capsules, and magnesium oxide or magnesium sulphate powder added to feed.

## Prevention

Prevention of grass tetany centers around magnesium supplementation and elimination of factors that inhibit magnesium absorption in the gut.

Management options to aid in prevention include:

- feed good quality hay or silage to increase roughage and energy intake
- limit high potassium feed (such as lush grass dominant pasture)
- move lactating cows to high dry matter, high legume pasture
- provide shelter
- limit stress
- correct soil acidity with lime or dolomite (dolomite contains magnesium).

Magnesium supplementation can be added to hay or pasture. A lactating cow requires 2g of magnesium per 1kg dry matter or around 50-70g/head/day of magnesium sulphate. Adding 3g of magnesium sulphate per 1kg of hay is usually sufficient, or 1kg magnesium sulphate per 350kg hay roll. Hay can be soaked or sprayed with a solution of magnesium sulphate powder mixed with water. For pasture supplementation, spray dry magnesium oxide up to 30kg/ hectare every 3 weeks or magnesium sulphate 20kg/hectare every 2 weeks during high risk periods.

## PREGNANCY TOXAEMIA-A DEFICIENCY OF ENERGY

**Nicole Romness and Bruce Thompson – 4<sup>th</sup> Year University of Sydney**

### What is it:

Pregnancy toxaemia, a deficiency of energy, otherwise known as ketosis, twin lamb disease or lambing sickness, occurs due to extremely low blood glucose levels. When glucose demand exceeds glucose supply, the body is forced to obtain energy through fat breakdown resulting in the production of ketones. When a ewe becomes sick with pregnancy toxaemia, extremely high levels of ketone production result in considerable damage to the brain and nervous system resulting in the classic blind 'dumb' ewe that progresses to death.

### Causes and Who is at Risk:

Pregnancy toxaemia results when the high demand for glucose, due to late pregnancy, is not being met appropriately. This can occur in drought due to inadequate nutrition but can also occur in good seasons, especially in fatter ewes if there is an interruption to the food supply or their ability to consume enough calories. Those most at risk include:

- ewes in late pregnancy (6 weeks prior to lambing) and ewes in early lactation (usually up to 3 weeks post lambing)
- ewes bearing twins or triplets (high glucose demands and little room for the rumen)
- ewes feeding on new lush, green pasture high in water and low in dry matter
- improper or declining nutrition- such as ewes grazing mature pastures
- interrupted nutrition due to stresses related to management, weather, transport, shearing, predators or a combination of these
- interrupted nutrition due to concomitant diseases (e.g. pink eye, foot abscess, footrot or hypocalcaemia).

### Diagnosis

Diagnosis is based on clinical signs, gestational period (last 6 weeks of pregnancy are at highest risk), and history of feed availability and type, while blood test findings (low glucose, high ketones) can also help support a diagnosis. Signs include anorexia, weakness, neurological signs (such as: depression, incoordination, impaired vision, head pressing, tremors, star gazing), constipation and death.

## **Treatment**

Treatment aims to correct blood glucose and hydration status. Treatment of ewes with liquid Vyrate® can be successful if started early. Early treatment of the disease by increasing the energy density of the feed and/or oral propylene glycol is vital to ensure success. It may also be necessary to induce parturition or perform a caesarean section to save an individual. If signs are already severe treatment may not be successful and euthanasia is advised with prevention of disease in any others the focus.

## **Prevention**

Careful nutritional management of pregnant ewe forms the basis of prevention of pregnancy toxaemia. Aim to avoid lambing down ewes too thin (<condition score 2) or overfat (>condition score 4) and aim to match pasture to requirements.

- scan pregnant ewes to separate singles and twins for different management. Ewes carrying twins will have an increased energy demand (2x maintenance levels compared to singletons which are 1.5x maintenance levels) and less rumen space due to uterus size
- provide high energy and high dry matter feed during late gestation and early lactation
- do not over condition ewes in early pregnancy to avoid over conditioned ewes in later pregnancy.

## **WORM EGG COUNTS ON THE SOUTH COAST**

### **Evelyn Walker District Veterinarian Berry**

Worm egg counts continue to be high in the Shoalhaven and Illawarra. Sheep and goats are showing mostly barber's pole worm at the moment with some black scour worms about. Beware that not all sheep and goats will show the classic signs of bottle jaw such as fluid like swellings of the face, neck or brisket. The best way to detect early worm burdens is to monitor your flock with regular egg counts. In this area, I recommend every 6 to 8 weeks minimum due to the conditions conducive for larval survival around here.

Lately, I have noticed that some producers have continued to use the same drench products over and over again. This practice will speed up drench resistance meaning that the product will eventually no longer work on your sheep or goat worms. In fact, I have seen drench resistance develop in a sheep flock after using the same product on 5 separate occasions. To determine whether you are rotating your drenches, look at the active ingredient. Don't limit yourself to what's left on the shelves at the local ag store.

You can have products ordered in that suit your management and your flock needs, e.g. a chemical with active residual against barber's pole worm, an effective product that has a short withholding period because you intend to sell soon, or even a product that you want to use that is safe on dung beetles.

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