



RIVERINA LOCAL
LIVESTOCK UPDATE

February



Local Land
Services

Case study: Worry about the worms you can't see

District Veterinarian Kristy Stone

Q Sheep

CASE HISTORY

A producer called because a particular mob of weaned Merino lambs were showing signs of poor body condition, ill-thrift and were dying. The mob were weaned early January onto a pasture and had been drenched at the time.

CLINICAL EXAMINATION

On clinical exam, the sheep were in poor body condition and were weak and lethargic. Their gum colour was light pink. There was no evidence of diarrhoea.

A post mortem examination revealed signs of fat mobilization and free-fluid in the abdomen (associated with malnutrition) and some minor irritation in the abomasum. The intestinal wall and faeces were normal but there were large amounts of tapeworm in the small intestines of one lamb.

DIAGNOSIS

Malnutrition & intestinal parasitism including tapeworm

WHAT DOES THIS MEAN?

A plan to improve their nutrition was made. The strongyle count was low in one sheep and moderate in the other, so the decision to do a worm egg test on the mob was made to help with a decision to drench.

The tapeworm finding, although remarkable, is actually not something to get concerned about. *Moneizia expansa* is the most common species of tapeworm found in sheep and heavy infestations can occur, particularly in lambs. Unlike the other intestinal parasites, tapeworm does not cause widespread inflammation to the gut wall that results in significant protein loss (or blood loss as with Barber's pole).

In general, drenching to target tapeworm is not recommended. Research trials have shown that there is no significant increase in weight gain between lambs treated for tapeworm and those that didn't receive treatment. In addition, as drenches containing praziquantel are only available with a single active ingredient such as levamisole or abamectin, use of these products may speed up drench resistance in other, more production-limiting worm species.



WHAT CAN BE DONE TO PREVENT?

Providing good nutrition particularly to susceptible stock such as young or pregnant animals is important for growth, health and immunity. Performing worm egg counts (WEC) on a regular basis helps detect high worm burdens before production losses and deaths occur.

Preventing tapeworm may not always be possible, particularly in young sheep, but generally as they mature, they become more resistant to infection. The important thing is not to be particularly concerned if you are seeing large eggs in faeces. Other species of tapeworm can infect dogs and in the case of Echinococcus, can then spread from dog to human. These species are best controlled through methods such as preventing dogs from eating sheep carcasses, not feeding dogs raw meat (freezing or cooking first) and maintaining good worm control in dogs.

FOR FURTHER INFORMATION:

[Intestinal tapeworm \(wormboss.com.au\)](http://wormboss.com.au)

Case study: **Historic acidosis**

District Veterinarian Georgia Grimmond

Q Sheep

CASE HISTORY:

190 five year old Merino Ewes were purchased and transported from the Central West to a property in the Riverina. On arrival they were vaccinated with Cydectin® Eweguard and placed onto an ungrazed wheat stubble paddock supplemented with lick blocks and vetch hay. By this time, livestock had been held off feed for a 24-hour period. Deaths began the next day, with the producer finding five sheep dead over a period of a week. The producer observed that deaths started to decline by the second week. By the third week the producer reported that deaths had ceased for the last five days however it was discovered that another ewe had died. The District Veterinarian was called out to investigate.

CLINICAL EXAMINATION:

It was reported that affected ewes would either be found dead or initially present with lethargy, abdominal pain, dehydration and inappetence. Clinically affected ewes would be found dead within 12 hours of presenting clinical signs. At the time of the investigation, all remaining ewes in the flock showed no abnormalities.

POST-MORTEM FINDINGS:

The most outstanding gross lesion in the ewe was a large 30cm firm mass extending from the rumen outward to involve all four stomachs and adhering to the abdominal wall. It appeared to be made up of various tissues – including abdominal fat, the rumen wall and omentum. The rumen was severely thickened, eroded, hemorrhagic and had multiple 1-3cm areas of dark purple ulcers extending from the inside of the rumen wall through to the outer surface. The carcass was dehydrated, with all organs congested with blood. A localised peritonitis surrounded the large mass.

DIAGNOSIS:

Historic acidosis - causing secondary rumenitis and peritonitis

WHAT DOES THIS MEAN?

In this case, the prolonged period without feed during transportation followed by the sudden introduction to grain predisposed these ewes to acidosis (also known as grain poisoning). Acidosis is caused by ingestion of excessive amounts of carbohydrates or rapidly fermentable feedstuffs. Once ingested, this feedstuff is broken down in the rumen resulting in the explosive proliferation of lactic acid-producing microbes. This creates an acidic environment within the rumen.

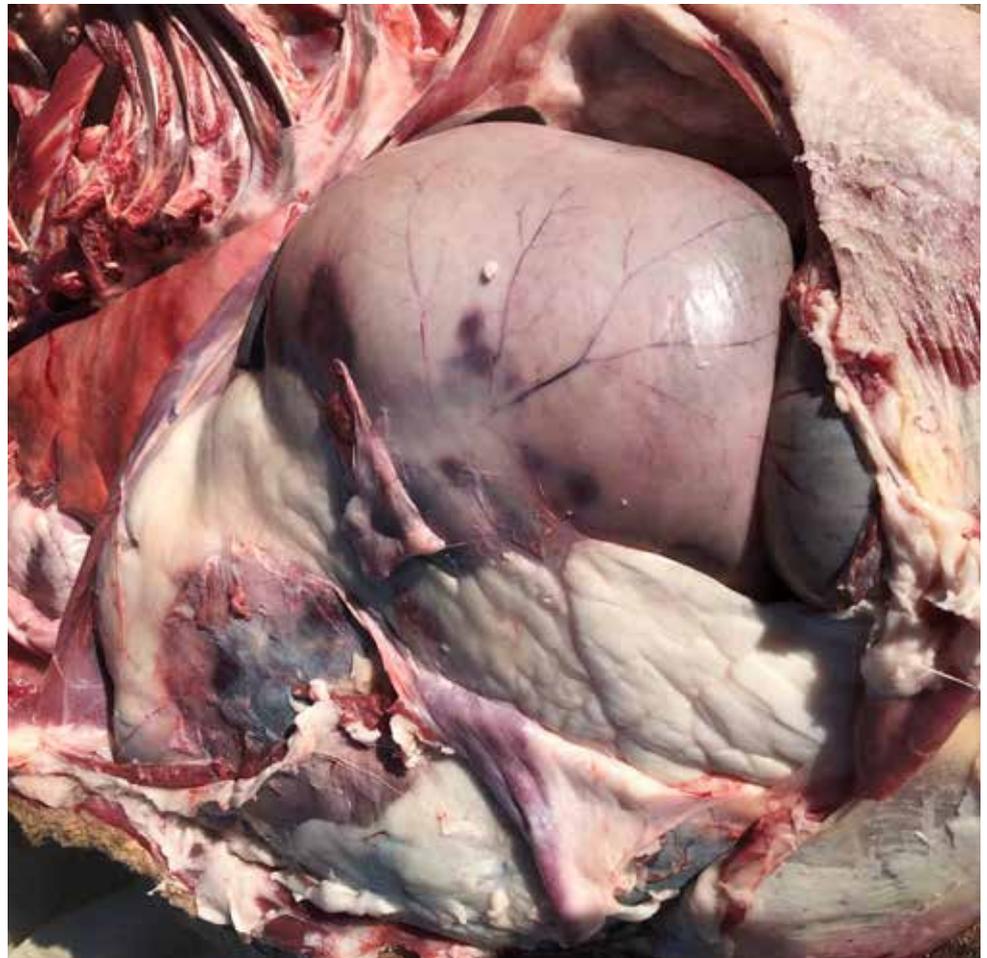


Image 1: Rumen and mass in situ.

Once the rumen pH is less than 5, several things happen:

1. Rumen motility and function reduces – affecting the sheep's ability to digest and absorb nutrients.
2. Lactic acid is absorbed across the rumen wall, making the blood more acidic – which can cause circulatory failure and laminitis.
3. The high osmolarity of the lactic acid – causes water from the blood to be drawn back into the rumen. Rumen contents become watery (presents as scours) and the sheep quickly becomes dehydrated.
4. The low pH degrades the integrity of the rumen wall which then allows pathogens to pass through. These pathogens can then spread to other organs causing sepsis.

Acidosis can be acute, subacute, chronic or be the catalyst to other secondary issues – and is mostly dependent on the magnitude and persistence of an acidic rumen environment. Acutely acidotic animals quickly succumb to the effect of shock and dehydration and are either found dead or are showing signs of severe colic, as was reported initially in this case. Sheep with a chronic or subclinical acidosis often have more subtle signs with varying severities of weight loss/ production losses, lethargy, scouring and colic. These animals often recover after a period of adaptation or intervention.

In the case of this ewe, the low pH of the rumen caused physical damage to the rumen wall which 1) resulted in rupture of the rumen with spillage of rumen contents into the abdominal cavity, and 2) predisposed her to secondary infections, in this case a mycotic infection.

The unusual mass found on post-mortem was the ewe's immune system attempting to heal and wall off infection following rupture of the rumen.

WHAT CAN BE DONE TO PREVENT?

- **Limit time off feed:** when stock go for extended periods without feed, their normal microbial population within their digestive tract or 'gut flora' decline. This provides the opportunity for the overgrowth of disease-causing bacteria within their gut.
- **Provide safe feed source on arrival:** when stock arrive on farm ensure they are provided good quality hay before introducing new feed or putting them out to pasture. Hay is a relatively safe feed source that will provide adequate gut fill and 'kick start' the rumen bugs into functioning properly again.
- **Introduce grain diets slowly:** to minimise the chances of developing acidosis, sheep should be acclimatised to the grain before being put onto ungrazed cereal stubbles. Hungry stock should not be introduced to grain.



Image 2: Thickening of the rumen wall.

FOR FURTHER INFORMATION

- Acidosis: https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0016/101338/grain-poisoning-of-cattle-and-sheep.pdf
- Livestock Requirements for Transport: <http://www.animalwelfarestandards.net.au/files/2015/12/Land-transport-of-livestock-Standards-and-Guidelines-Version-1.-1-21-September-2012.pdf>

Announcements + additional warnings

BARBER'S POLE WARNING

With mild temperatures, continued moisture and pasture mass, this Summer is providing perfect conditions for Barber's Pole worm. Over the past few weeks recent worm egg counts across our region have reflected this ideal environment, with counts up to 7000 eggs per gram (epg) of manure being seen.

While clinical signs of weakness, lethargy, inability to cope with stress of mustering or yarding and scouring can all be symptoms of a worm burden, they are not always displayed. Diagnosis of a worm burden should be made based on WECs, rather than waiting for the worm burden to build up to the point of causing production losses and potential deaths. Barber's Pole worm's ability to rapidly build up population means that regular monitoring should be employed, particularly for susceptible stock that have been moved onto dirty pastures.

Most at risk classes of stock?

Lambs and late gestation/lactating ewes are highest risk. Currently with many producer finishing lambs, these are the animals showing the highest counts. These are also the animals which production losses and reduced growth rates will have the greatest impact. Young stock should be closely monitored.

How often should you be carrying out WEC's in a challenging season?

WECs can be done every six weeks if there is known pasture contamination. A post drench WEC is an easy way to ensure that the drenching done has been successful. This should be done 10-14 days post drenching.

SUMMER PNEUMONIA – ANGUS BLACKWOOD (CSU FINAL YEAR VETERINARY STUDENT)

Pneumonias typically present after consecutive hot, dusty days in January and February. The most common presentation of summer pneumonia is the formation of a tail in the mob, where producers describe seeing lethargic lambs and others may be found dead.

Clinical signs may be worse following stressful events such as mustering, yarding or on hot days and include dullness, a decrease in appetite, falling behind the mob when mustered, difficulty breathing and nasal discharge. The level of coughing in the mob is variable and not always observed.

Sheep of all ages can be affected however a commonly seen presentation is in weaner lambs grazing lucerne pastures. Mycoplasma species of bacteria have been associated with summer pneumonia, however other bacteria may also be involved.

Diagnosis is obtained through a combination of history, clinical signs and post-mortem done by your veterinarian.

Some strategies to reduce the risk of summer pneumonia include reducing stress, providing shade on hot days, avoid working with sheep in the hottest part of the day, avoid mixing lambs from different mobs and avoid sudden changes in diet.

Treatment and prevention options are available but should be discussed with your veterinarian as they are dependent on the type of pneumonia you are seeing.



Upcoming events

WEBINAR: WORMS ARE BACK! HOW ARE YOU COPING?

18th February 2021 13:00

Online

Dr Matt Playford gives an update on this year's unfolding worm season. Matt will cover what is happening across NSW, how to minimise the impacts and what you can do to get your prevention program running more effectively.

Registration: [Sheep Connect NSW - WEBINAR- Worms are back! How are you coping?](#)

WEBINAR: SUMMER WEANER MANAGEMENT

25th February 2021 13:00

Online

Sheep Connect NSW's Megan Rogers discusses ways to optimise weaner management this summer.

Registration: [Sheep Connect NSW - WEBINAR- Summer weaner management](#)

PASTURES RESEARCH UPDATE 2021

9th-10th March 2021

Griffith: 9 March 2021: 8.30am-3.30pm. Griffith Exies Club, Jondaryan Avenue. Wagga: 10 March 2021: 8.30am-3.30pm. Joyes Hall, Charles Sturt University.

With livestock markets booming and renewed interest in pasture renovation, Riverina Local Land Services is working with the NSW Department of Primary Industries (NSW DPI) to host a Riverina Pastures Research Update. This workshop will set you on the right path for this year's pastures sowing, management and considerations for the future.

Topics include:

- getting the most out of lucerne pastures to maximise production and persistence
- the latest guidance on managing soil acidity in the cropping zone
- hard seeded legumes - the grower perspective
- tropical grasses for southern environments - what are the opportunities?
- how to best manage mineral balance in sheep grazing cereals
- farming smarter – spatially managing acid soils for improved pasture establishment and production
- pasture management to obtain profitable grazing outcomes.

The latest research will be on show from the NSW DPI Pastures and Livestock Systems Team and leading industry consultants. There will be plenty of opportunity for your questions to be answered.

Attendance cost for each event is \$20.00 per person which includes tea, coffee, morning tea and lunch. Places are limited at each event and registrations via Eventbrite are essential. RSVP closes 8 March 2021.

[Download the flier](#)

Register online here: http://bit.ly/Riv_PU

WEBINARS THAT ARE TIMELY...

Spotlight on Barber's Pole Worm with Dr Brown Besier

Understanding what makes Barber's Pole worm such a successful parasite and its lifecycle, allows you to understand its weaknesses and the most appropriate methods for management.

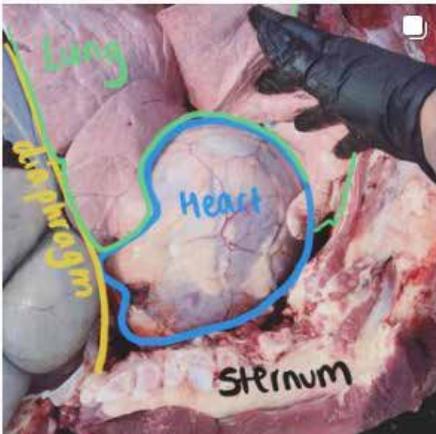
[Sheep Connect NSW - Tools & Resources](#)

Sheep Blowfly Resistance

A wonderful summer in the Riverina region has brought with it some challenges, one of the most commonly identified being flystrike management. In this webinar Deb Maxwell discusses sheep blowfly resistance and the latest recommendations for control.

[Sheep blowfly resistance update with Deborah Maxwell - Whooshkaa](#)

Follow us at [@locallivestockvets](https://www.instagram.com/locallivestockvets) on Instagram to see photos and videos direct from the paddock!



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