Animal Health Update

Phalaris Staggers
by District Veterinarian Rahul Shankar

Towards the end of May and the start of June, several reported and diagnosed cases of phalaris staggers have occurred across the Riverina area.

Phalaris staggers is an incoordination syndrome that occurs due to the ingestion of phalaris pastures containing dimethyltriptimime alkaloids.

It takes a minimum of 10 days for signs of the disease to occur in stock (both cattle and sheep), with most cases occurring a month to 2 months post-grazing.

Characteristic signs of the disease are limb weakness (with or without knuckling of the hocks, fetlocks or knees), head nodding and bunny hopping with a wide base stance gait. In cattle the nerves that control eating and swallowing are affected, so cattle could also suffer from a high degree of weight loss.

Image 1: Affected ewe with hindlimb weakness and incoordination.

Diagnosing phalaris staggers: Can only be done on post-mortem analysis of the brain, in combination with the characteristic signs mentioned above.

There are no known treatments for animals affected by phalaris staggers. Humane euthanasia of animals suffering from the disease is recommended.

Prevention of phalaris staggers focuses on checking on the variety of phalaris present in your paddock, assessing soil cobalt levels, and administering slow release cobalt bullets once phalaris staggers has been diagnosed on the property.

Older varieties of phalaris are known to have the alkaloid toxin present in it, but newer varieties (within the last 5 years, do not have these toxins present). Check with your local agronomist in regards to the newest varieties of phalaris available, specifying the need for them not to have the alkaloid present.

If you are in any doubt as to whether phalaris staggers is affecting your flock or herd, contact your local LLS veterinarian immediately.

For an in-depth look into phalaris staggers along with video footage showing affected animals, please visit the following link:


Middle Eastern Respiratory Syndrome (MERS) by District Veterinarian Tim Biffin

Most of us have probably heard about the recent outbreak in South Korea, but what is MERS and should we be worried?

MERS is a virus, similar to SARS. An Egyptian Virologist working at the Dr Soliman Fakeeh Hospital in
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Jedda, Saudi Arabia first discovered MERS in June 2012, rather controversially. Despite some very thorough work and what may have been all good intentions, Dr. Ali Mohamed Zaki (the virologist), was subsequently dismissed from his employment at the hospital as a result of his discovery.

Today we know that bats in the Middle East and Africa are the native host of MERS, having spread the virus to camels at least 20 years ago (in the mid 1990s). The prevalence of infection in camels in some Middle Eastern countries has been found to be extremely high (one survey found 100% in Oman). It is believed that infection in camels enables “spill over” into people only via close contact e.g. being sneezed on, or drinking unpasteurised camel milk (which is actually a common practice in some areas of the Middle East). Similar to spread from camels, human-human transfer is only from close contact exposure e.g. being coughed on.

MERS has currently been reported in over 20 countries, including Saudi Arabia, Jordan, Qatar, Egypt, the United Arab Emirates, Kuwait, Turkey, Oman, Algeria, Bangladesh, Indonesia, Austria, the United Kingdom, South Korea, the United States, and Mainland China. Most of which were from “importation” of the virus with infected people. Having said this, MERS does not present the same type of concern that some other emerging infectious diseases do, such as Ebola. This is because infected camels are the key feature of viral release and sustained infection in human populations. Having said this, MERS should still be viewed as a very serious disease that requires strict control measures.

Moral of this story: Middle Eastern public health organisations should be focusing on minimising the spread of MERS from camels to humans. If you are travelling to the Middle East be wary of the camels: do not drink their unpasteurised milk, do not walk through camel abattoirs, and do not kiss the camels.

Land Transport of Stock by District Veterinarian Gabrielle Morrice

The new Standards for the Land Transport of Livestock have been in place now for 2 years.

The majority of farmers are extremely vigilant about the welfare of their animals and are often the people who notify us when there are concerns about the welfare of animals in their area or at the saleyards. The following information is also available in the MLA “Fit to Load” guide (go to http://www.mla.com.au/Cattle-sheep-and-goat-industries/Animal-welfare)

It is important that livestock being transported to the saleyards for sale (or to other properties) are in a condition that is suitable for them to be trucked. The legal responsibility rests with the person in charge of the animal (but if one of our saleyards is shut down, or shows up on a national current affairs show, we will all be affected in some way).

Livestock should be assessed pre-loading and should NOT be loaded if:
- the animal is not strong enough to undertake the journey
- cannot walk properly, bearing weight on all four legs
- is severely emaciated or visibly dehydrated
- is suffering from visible distress or injury
- is in a condition that could cause it increased pain or distress during transport
- is blind in both eyes
- is in late pregnancy

Saleyards faced with animals being presented in this way will be likely to humanely destroy the animal, with the cost of destruction and disposal charged to the owner of the animal.

Low Selenium levels in Cattle by District Veterinarian Emily Stearman

Selenium is an essential element in ruminants playing a significant role in normal growth and fertility. Clinical disease as a result of low selenium is uncommon in young cattle grazing high quality pastures, despite
plant levels often being below that of the animal requirement. Selenium’s role is highly complex; even at suboptimal levels selenium can be causing losses in production.

Low selenium levels:
- reduce ability to prevent tissue damage - ie. heart and other muscle (White Muscle Disease)
- impair function of the immune system
- alter iodine metabolism

Risk Factors Predisposing to Low Selenium
Region/Soil Composition
- high winter rainfall areas or >500mm annual rainfall
- central and Southern tablelands and slopes
- ignatius rock and high acid soils
- irrigation exacerbates losses in soil

Pasture Factors
- large clover germinations in Autumn
- rapid pasture growth in Spring

Fertilizer applications
- sulphur inhibits selenium uptake
- promote change in pasture species ie: increase in clover
- generates rapid growth

Indications there may be a problem:
- ill-thrift/poor growth
- suboptimal milk production
- suboptimal fertility
- retained fetal membranes
- premature calves, peri-natal deaths, abortions,
- subclinical mastitis

Blood testing animals where any of the above risk factors are present will indicate if there is a potential problem on the farm.

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### Chronic copper toxicity by District Veterinarian Emily Stearman

Throughout May we saw some clinical cases of Copper Toxicity. In particular older sheep that have grazed summer pastures of high Heliotrope content; a case also occurred in a neighbouring LLS where lifelong grazing of subterranean clover was the primary source of poisoning resulting in excessive storage of copper within the liver.

Copper toxicity can occur secondary to liver disease or from primary ingestion of high copper feed sources. Typically lush subterranean clovers are deficient in molybdenum and sulphur but high in copper. The body will preferentially avoid copper absorption, eliminated by the liver. When underlying liver disease is present and high copper pasture is grazed the liver stores copper rather than expelling it. Due to this, sheep with known exposure to liver toxic plants such as Heliotrope and Paterson’s Curse should not be grazed on copper rich pastures.

**Clinical signs** include jaundice, weight loss and ill thrift. Death occurs when the animal is significantly stressed (high worm burden, nutritional stress or extreme weather events), triggering sudden release of copper into the blood stream. This results in a haemolytic crisis and imminent death.

**Post mortem images**: body fat is severely jaundiced, kidneys, liver and spleen are dark-black in appearance; focal haemorrhage can be seen on most of the abdominal organs.

![Image 2: Abdomen](image2.png)
Disease is confirmed by measuring copper levels in kidney or liver tissue.

**Prevention:** Where underlying liver damage is suspected, avoid grazing pasture of high copper content. Highly acidic soil can alter nutrient uptake in plants; supplementing clover pastures with molybdenum can be beneficial. It is recommended to seek agronomist advice for soil and pasture management. Where deaths are occurring or grazing susceptible sheep on high copper pasture is unavoidable, oral molybdenum combination drenches are a useful treatment and preventative. Contact your local veterinarian for further advice.

**Worm activity**

**Griffith/Hay:** Around the Griffith region there have been significant worm egg counts reaching 680 eggs per gram in young lambs. These eggs were from the thin-necked intestinal worm, which occurs in the major sheep producing areas of the country. Scouring and death will occur in young lambs if not treated. Prompt treatment (drench) is required in lambs when worm egg counts reach 200 eggs per gram. These worms commonly occur after dry summer periods when short green pick emerges.

Strongyle egg counts have also been on the rise around the Griffith area with counts of 480 eggs per gram; Trichostrongylus (black scour worm) makes up the bulk of the count. Treatment (drenching) is indicated when counts reach 150 eggs per gram in the non-seasonal rainfall region. Production loss can be significant before any signs of Trichostrongylus infection occur.

Even though many paddocks are sparse with feed, worm egg counts are also on the rise around Hay, Hillston and surrounding areas therefore using a ‘worm test kit’ is recommended.

**Wagga Wagga:** Very few Worm Egg Counts have been seen this month; residual sowing and concurrent lambing are likely responsible for this. Worm counts seen in the area still show significantly high proportions of Barbers Pole Eggs. We have seen Cooperia appear in very low levels in recent sheep test but there is no need to be alarmed; drenches that treat other round worms will also cover Cooperia.

Worm management advice is very similar to last month. If lambing has not started, a pre-lambing drench should be considered 2-3 weeks prior to lambing. This is particularly important for Merino Weaner production systems, aiming to minimise the effects of worm burdens on young sheep at weaning.

Consideration to weaning pastures and preparation should be well under way. Low risk grazing pastures include stubble or forage paddocks, paddocks grazed by cattle for 2-3 months of summer or >6 months for cooler months, or pasture not grazed by sheep younger than 18 months of age.

Consider drenching ewes and weaner lambs at 12-14 weeks post lambing and move onto low risk pasture. Early weaning at 12-14weeks of age is recommended to ensure early separation of the two age classes reducing the risk of egg exposure as well as nutritional competition. This has concurrent trade offs for return to joining weights in ewes.

**Young:** Worm counts for our district have remained low. A few producers that had experienced high counts 6 weeks prior have re-tested their stock with numbers dramatically reduced. Numbers averaged from 0epg-390epg for this past month. Temperatures have fluctuated from frosty mornings and frigid nights the last few weeks to warmer days and nights this past week, but still not enough for infective larvae to take advantage of these conditions.

The last few days have brought in a good spot of rain to our eastern areas, which has brought smiles to all the producers out this way.
Other Announcements

Lamb Survival workshops a success
Recent lamb survival workshops held at Cootamundra, Boree Creek and Tubbul went off extremely well. Workshops were held in collaboration with Holmes & Sackett and Moses & Son. Producer feedback was extremely positive and all of the participants took away vital pieces of information in regards to lamb survivability and how to conduct a basic post-mortem analysis on lambs.

Win with sheep parasites
New subscribers to ParaBoss News (or updated current subscriptions) in June or July 2015 will go into a draw for great prizes.

Spend a few minutes and you could win:

- Riverina Pasture Supplements: 1 x $850 prize
- ACTA Mouseoff® BD Rodent Block 9 kg Pail: 4 x $220 prizes
- Allflex Products: 4 x $220 prizes

ParaBoss News is a free monthly e-newsletter providing state and regional updates on worms, flies and lice, feature articles on controlling sheep parasites and a quick 3-question quiz to test your knowledge.

Go to www.paraboss.com.au and choose SUBSCRIBE.

National Carbon Farming Conference and Expo

When? July 7-10, 2015
Where? Albury, NSW

At the Carbon Farming Conference & Expo this year Delegates will learn about all the NEW METHODS available through the Government’s DIRECT ACTION, hear case study presentations by early adopters who have earnt BIG DOLLARS to drought-proof their properties and most importantly talk to the many Project Developers on hand who can guide farmers through the process of deciding the Method/s they should use when registering a Project for CARBON CREDITS.

Earning CARBON CREDITS is no longer just about Soil and/or Trees.

In a Carbon Farming first delegates this year will learn how a ‘Whole of Farm Audit’ will identify MULTIPLE METHODS for Farmers to use.

eg Soil Carbon, Finishing Beef Earlier, Feed Supplement, Mobile Farm Machinery, Stationary Pumps, Trees (do not discount them - plant them, save them, use the Government’s One Million Trees and GREEN ARMY program) … just to name a few!!

There are now so many new opportunities for the Land Sector to earn CARBON CREDITS over the next 10 to 15 years and drought-proof their properties...BUT there are also so many more competitors in this space including BIG companies who will gain access to the ERF by reducing their Emissions.

SO - TIME FOR FARMERS TO GET THEMSELVES ORGANISED AND BUILD THEIR CARBON PLAN .... NOW!

Farmers and other Delegates should visit the National Carbon Farming Conference & Expo website and register ONLINE to attend any or all of the following:

- The 2 Day Conference
- The Field Trip (See AMAZING NEW Carbon Farming Machinery)
- Carbon Farming 101 Workshop
- Carbon Cocky Awards Gala Dinner
- Advanced industry workshop
- Transport Emissions Reduction Workshop

You can register here ----- http://www.carbonfarmingconference.com.au
Riverina Local Land Services
District Veterinarians

Please note new office numbers

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