

Animal Health Update

South East
Local Land
Services

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Disease Watch

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District Veterinarian Yass

Producers are urged to be aware of nitrate toxicity as alarmingly high levels of nitrates have been reported in hay tested through the laboratory. Crops, pastures and weeds grown during drought times can have nitrate levels above safe limits, resulting in livestock poisoning. Nitrate concentrations are usually higher in young plants and particularly in the stalk, consequently young failed crops that have been baled for hay or silage can have very high nitrate levels. Producers are urged to request feed test results on purchased hay and to be very careful when putting hungry stock onto crops. Always feed hay prior to allowing access and watch stock closely for the first 24 hours.

District Veterinarians have also seen more deaths this month from pulpy kidney in young stock, emphasising the importance of the 5 in 1 vaccination booster.

Windy dusty conditions have seen an increase in the amount of pink eye cases seen by producers and veterinarians. Many cases have been self-resolving but other cases have occurred in an outbreak and required flock treatment.

Producers are starting to feedlot more lambs and some deaths have been seen from acidosis.

The recent producer workshops on feedlotting lambs were well attended and economics, set up, and animal health concerns were discussed. For those that missed the workshops a great summary can be found at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0020/193313/Feedlotting-lambs.pdf

Animal health is an important consideration when feedlotting. Many of the deaths that we see can be prevented by careful attention to diet, water, environment and social stress. The diet needs to have adequate levels of protein and energy for the size of the lamb and at least 10% roughage.

Younger lambs required higher protein and require more roughage to obtain adequate rumen development and function. Grain diets must be balanced for calcium (1%) and salt (0.5%) to prevent growth abnormalities and bladder stones.

Acidosis is the highest death risk to lambs in feedlots. Ensure lambs have had a recent 5 in 1 booster and that grains are introduced at slowly at recommended rates and that all lambs are eating grain in the paddock before moving to a feed lot situation. Include a buffer in higher risk situations. Water supply, quality, cleanliness and palatability is extremely important for animal health and growth rates. Dust levels can contribute to pneumonia and

pink eye. Social stress is another killer. Lambs require a minimum of 5 square meters each, but will do better with 30 square meters. Tail-enders and poor doers need to be removed from the feedlot situation, and often will do well in a smaller group.

Consider enriching the environment with tyres and balls and things to climb on, lambs like to play and do better if they are happy. Where lambs have not had access to green feed a vaccination of A,D and E vitamin is advised. Most lamb feedlots have very low death rates, if you are experiencing deaths in your feedlot please consult your local or district veterinarian.

Toxic summer weeds- Pyrrolizidine Alkaloids

Lou Baskind

District Veterinarian Palerang

Pyrrolizidine alkaloids (PAs) are a type of toxin found in Paterson's curse, common heliotrope and fireweed and many other plant species. Toxicity depends on several factors including the level of toxins in the plant, the dose consumed and the species consuming it. Pigs, horses, alpacas and poultry are most sensitive to alkaloids, cattle have intermediate sensitivity, while sheep and goats are reasonably resistant. Toxicity levels tend to increase to a maximum as the plants are flowering.

All above-ground parts of the PA-containing plants are toxic, including the seed. In normal circumstances these plants are unpalatable; however, when appropriate feed is not available, hungry or naive animals may be forced to graze them. Also, these toxic plants can be baled into hays, or their seed can contaminate feed grains at harvest.

As animals consume the plants, the toxins build up over several months causing chronic organ damage, especially to the liver. Once illness becomes evident, the damage is already severe and irreversible and there is no treatment. Affected animals may die or have prolonged illness, resulting in reduced productivity and sudden death during times of stress such as mustering.

Many plants contain PAs, with the most important in our region being *Echium plantagineum*, known as Paterson's curse or Salvation Jane, *Heliotropium europaeum* known as common heliotrope, and *Senecio madagascariensis*, known as fireweed.

Current drought conditions favour the establishment of the summer-active common heliotrope and fireweed due to reduced groundcover.

NB- See figure 1 at end of Update for guide.

What to do:

1. Ask for a Commodity Vendor Declaration (CVD) when buying in feed or fodder to assist in the management of weed risks.
2. Be vigilant of new plants establishing in degraded pastures and disturbed areas such as sacrifice feeding paddocks/drought lots/overgrazed pastures.
3. Use a combination of techniques for control including cultivation, competition, chemicals and grazing management (see below).
4. Do not bale for hay or make silage from pastures contaminated with PA-plants.

Grazing management:

Because sheep and goats are relatively resistant to PAs, they can be used for control if done correctly. A different mob of animals should be used each year to reduce exposure. Merinos and goats are more resistant than British breeds of sheep. Use adult wethers not breeding females or juveniles. Graze the plants when they are young to prevent them from setting seed. On properties with both winter and summer-active PA plants, do not graze with the same mob for more than two consecutive seasons. Never graze horses, pigs or poultry on PA plants.

Remember, by the time you see evidence of illness in stock it will be too late to take action. Be vigilant and act quickly to control these plants.

For more information see the following links:

Common heliotrope:

http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0/010/155926/heliotrope-common.pdf

Fireweed:

http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0/007/49840/Fireweed.pdf

Paterson's curse:

http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0/011/88490/patersons-curse.pdf

Or search for these weeds on the WeedWise database: available at <http://weeds.dpi.nsw.gov.au/> or download the free smartphone app. The database includes identification, control and biosecurity duty for over 300 weeds.

Pulpy Kidney-Enterotoxaemia

Henry Clutterbuck

District Veterinarian Goulburn

Highlights

Cause: Overgrowth in the gut of bacterium *Clostridium perfringens* which releases epsilon toxin killing the animal.

Affects: Sheep, Goats, Cattle

Risks: Young fast growing animals on lush pasture or grain with no or incomplete vaccinations

Diagnosis: Post mortem by LLS DV or local vet.

Treatment: Seldom rewarding

Prevention: Vaccination with "5 in 1 vaccination"

With recent seasonal changes and many sheep entering feedlot situations or utilizing failed crops we strongly advise producers to revisit their vaccination protocols. Changing conditions has seen an increase in available pasture in some areas. This poses an increased risk of young stock dying from Pulpy Kidney (Enterotoxaemia).

What is pulpy kidney?

Pulpy kidney is a disease that effects sheep, cattle and goats. It occurs when high energy (high carbohydrate) feed is consumed. This is normally in the form of fresh green grass or grain. The presence of this high carbohydrate feed in the gut allows the overgrowth of the *Clostridium perfringens* type D bacterium. This bacterium releases a toxin called epsilon toxin which poisons the animal.

Which animals are at risk?

Pulpy kidney usually manifests in young fast growing animals that are unweaned or recently weaned, particularly lambs. Animals that have recently been moved to lush pasture are another risk factor. Most commonly unvaccinated animals or animals who have not received their second vaccine dose are effected. Heavy losses regularly occur.

Diagnosis

If you experience multiple sudden deaths and suspect pulpy kidney in your flock please call your

local LLS District Veterinarian or Local Practitioner. Diagnosis is readily achieved through post mortem.

Prevention/Treatment

Vaccination. A vaccination program with 2 doses 4-6 weeks apart initially and then a yearly booster is required to achieve long lasting protection. When animals are entering a high risk situation it is advised that they have had an additional booster within the last 3 months. Unfortunately there is no specific treatment for pulpy kidney. For valuable animals treatment can be attempted but the results are seldom favourable.

Fly strike Tools

Alexandra Stephens

District Veterinarian Yass

How well are your blowfly and lice treatments working on your farm?

AWI and NSW DPI are jointly funding a project to determine the presence and extent of insecticide resistance in two major parasites of sheep, the sheep blowfly and the sheep body louse. By monitoring for the emergence of resistance to currently registered products this project gives producers the most up to date information on resistance issues. This research can't be done without producer input. NSW DPI researchers are seeking wool growers who are willing to provide maggots from fly struck sheep and fleeces from lousy sheep. Producer confidentiality will be maintained and you will receive the results for your flock as well as contributing to a statewide overview.

Sheep blowfly (maggot) collection kits are available from your local LLS office or can be obtained by emailing narelle.sales@dpi.nsw.gov.au directly. Please contact Narelle prior to shearing to discuss the submission of a fleece for lice testing.

Are you familiar with flyboss.com.au, a branch of paraboss?

Like worm boss and lice boss, this is a fantastic resource of information. It has up to date information about flystrike treatment and prevention treatment options, and the latest product lists. It also has interactive decision support tools. These tools combine information about your chemical and non-chemical flystrike

preventions with information from a nearby weather station to develop you a tailored flystrike calendar. This tool allows you to vary your details to compare flystrike prevention options to optimize protection times for your flock.

<http://www.flyboss.com.au/>

South East Local Land Services District Veterinarians

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<i>Heliotropium europaeum</i>	<i>Senecio madagascariensis</i>	<i>Echium plantagineum</i>
Common heliotrope	Fireweed	Paterson's Curse
<ul style="list-style-type: none"> • Grey-green, upright, branched plant bearing small white trumpet-shaped flowers with yellow throats. • Mainly distributed west of the Great Dividing Range • A summer active plant of fallows, degraded pasture, or disturbed sites. • Extremely drought tolerant • Does not tolerate competition from vigorous crop and pasture species 	<ul style="list-style-type: none"> • A daisy-like plant that bears bright yellow radiate flowers • Mainly distributed in coastal regions east of the Great Dividing Range, but habitat is expanding • Competes strongly and can dominate the pasture • Prefers bare ground and needs moisture for establishment but can then grow and flower at any time of year except mid-winter as it does not tolerate frost 	<ul style="list-style-type: none"> • A light-green hairy erect plant that grows around 60cm in height and bears purplish-blue flowers • It is a competitive plant and dominant in a range of habitats, especially if grazing pressure is low • It usually dies off over summer, especially if moisture is insufficient
		

Figure 1: Toxic Summer weeds table.