Animal Health Update

Maximising lamb percentage - nutrition

District Veterinarian Courtney Simkin

Nutrition can have a major impact on sheep over their lifetime; affecting performance, profitability and the quality of the end product.

Nutrition of both ewes and rams is one of the vital components when maximising lambing percentage. Joining over spring/summer can result in nutritional deficiencies. This can be controlled with careful management.

Rams

In rams sperm take an average of 6-7 weeks to fully mature. Therefore any boost to nutrition for rams must begin at least 8-10 weeks prior to joining.

Rams should be in good body condition (BCS 3-4) for joining; if possible it is best for the ram to maintain good body condition year round.

Rams in lower condition score that are supplemented (flushed) prior to joining can have an increase in the size of their testicles (compared with non-supplemented rams) and in turn their sperm production, energy and vigour.

To flush rams, good quality supplements such as lupins are required. Rams should have been previously exposed to any supplements prior to being flushed so they can start consuming it straight away.

Ewes

Ewes should be at body condition score of at least three for joining and no more than 4-4.5. The previous seasons lambs should ideally be weaned at 14 weeks post the start of lambing but if not possible at least four to six weeks before the start of joining.

Ewes in the right body condition score should not need extra supplementation. Instead maintain them on an even plain of good nutrition.

Studies have shown that the ewe’s body condition score is the major determinant of ovulation rate.

The Lifetime Ewe project found an increase of about 20% extra lambs per 1+ increase of BCS when rising from BCS of 1.5 to 4, but once a ewe reaches a body condition score of 4+ the rate of dystocia increases.

Ewes consuming a rising plane of nutrition post-joining can have increase in embryonic loss as their progesterone levels can decrease. A sharp decline (or under) nutrition in the first 21 days post joining can also cause early embryonic loss.

Placental development occurs at days 30-90 of gestation; good nutrition will allow the ewe to maximise placental growth.

Ewes with weight loss of 5kg or more (about ½ BCS) during this time will have lambs of lower birth weight. This lower birth weight cannot be rectified with end of gestation nutrition. It is therefore vital to maintain an even plain of good nutrition pre, during and post joining.
Shearing

Metabolism of sheep will be increased for about 2-3 weeks post shearing. This can be combined with supplementary feeding to boost body condition of both rams and ewes. Care must be taken with timing as the metabolism boost needs to occur during preparation for the joining period.

Feed must be available to keep up with an increased appetite; otherwise the body condition may go backwards and have a negative effect on sperm production and ovulation rate.

Worm burden

Worm counts should always be completed in preparation for joining. Any extra energy provided to your rams and ewes should be going towards achieving ideal body condition score not feeding parasites.

Please note - all BCS (body condition score) mentioned are out of five and are based on BCS over the short ribs; mid spine of sheep.

Tips for grazing stubble

District Veterinarian Emily Stearman

High quality stock feed is often a production limiting factor across the Riverina during summer.

Dry conditions following a lush spring and the conclusion of harvest has left predominantly dry feed for sheep and cattle to graze.

Stubble provides a good source of roughage but is limited otherwise in its nutrient value, especially once ground grain is grazed out. There are things we can use to better utilise this resource which will enable livestock to maintain weight and clear stubble from paddocks prior to sowing.

The rumen is a large fermentation tank, full of bacteria that have the specialised role of breaking down roughage to provide nutrients to the animal.

These bacteria require protein and energy to fulfil their role. When the nutrient value of plant material is limited, the ability of the bacteria to breakdown the plant is reduced. The gut remains fuller for longer as digestion is slowed, the animal then spends less time grazing and two outcomes occur – less stubble is utilised and the animal losses body condition.

Urea and molasses based products provide extra nitrogen (for example protein) and energy to the gut bacteria to support optimal utilisation of stubble.

These come in wet and dry lick forms as well as lick blocks; more commonly dry licks and lick blocks are used for sheep and liquid supplements used for cattle.

Supplementation will provide production and economic return especially in young stock during their growth phase where traditionally they would lose weight at this time of year.

While care should always be taken grazing pregnant stock on low quality feed, appropriate protein and energy supplementation, in the form of hay or grain can help reduce the incidence of pregnancy toxaemia seen on stubble.

National livestock standstill quiz (part 2) adapted from Department of Agriculture and Food, WA

1. Initially, how long will a national livestock standstill last?
   a) 24 hours
   b) 48 hours
   c) 72 hours
   d) 1 week
   e) I don’t know!

2. If there is an outbreak of foot-and-mouth disease in Victoria, where does the standstill apply?
   a) Victoria only
   b) Victoria, South Australia and New South Wales
   c) all states and territories except Tasmania
   d) All Australian states and territories
3. If I am transporting livestock when a national livestock standstill is called, what should I do?
   a) stop and contact the NSW DPI or Local Land Services immediately
   b) complete the journey
   c) return to the property of origin

4. If my animals urgently need to be moved during a livestock standstill, where can I apply for an emergency movement permit?
   a) Transport company
   b) NSW DPI/LLS
   c) RMS
   d) NSW Police

5. If livestock are at a saleyard or a show or being transported during a livestock standstill, who is responsible for managing their health and welfare?
   a) NSW government
   b) owner of the stock
   c) person in charge of the stock in their current location
   d) Federal government
   e) Industry groups

Where do I find the answers, you ask? At the end of this newsletter!

Are you missing out on green feed?

**District Veterinarian Tim Biffin and Agronomist Lisa Castleman**

Lucerne is a perennial legume known as the “King of Fodder”. There are known challenges to lucerne-growing, and a body of experience and knowledge to provide solutions.

Redgut in sheep and bloat in sheep and cattle are the two biggest and well-known conditions associated with grazing stock on a diet of predominantly lucerne.

Redgut mainly affects lambs, but will also occur in older sheep grazing pure lucerne. It results from an increase in hindgut fermentation and then displacement, twisting and strangulation of the intestine; before shock/sudden death. Redgut is easily prevented by increasing the amount of roughage available to the animal: simply provide a few bales of hay in the paddock or consider using a mix of pasture species.

Bloat on lucerne, particularly in cattle, is more difficult to manage. The condition is related to an excess of high quality (lucerne), therefore, the solution is dilution.

Provide roughage at watering points, dry or wet licks, water additives, drenches or encourage grass species in the pasture. There are a number of bloat prevention products on the market and lucerne-growers often use them in combination.

**Lucerne Management Online** is a short course offered online to primary producers. Experienced lucerne-growers, agronomists and vets offer management tips and solutions for common issues: fill feed gaps, harvest summer storms, provide quality feed and finish stock in prime condition.

http://www.dpi.nsw.gov.au/content/agriculture/profarm/courses/lucerne-management

Image 1: Lucerne paddock

**Hairy panic or witch grass poisoning**

**District Veterinarian Emily Stearman**

Summer in the Riverina comes with the imminent risk of hairy panic (witch grass) toxicity, a common and unfortunately, palatable grass species.

While the grass can be toxic to other species, sheep are most susceptible. Young sheep are typically worst affected, this is most obvious when
ewes and lambs are grazing on a panic pasture. This is largely due to grazing behaviour.

Older sheep will graze other less toxic species while young animals graze less preferentially, consuming higher amounts of the soft, sweet panic grass.

The toxin has a primary effect on the liver resulting in secondary photosensitisation. Many producers have adapted to managing sheep affected by primary photosensitization, however supportive care for liver damage is more of a challenge.

Critical care typically involves offering the highest quality feed to support the immune system and encourage recovery. However, high protein diets place the liver under further undue stress.

During the recovery phase, which can be up to two weeks, lucerne pasture, lucerne hay and cereal grain diets should be avoided to prevent organ shutdown and death.

Signs of toxicity, including jaundice, lethargy, facial oedema or facial ulceration, are an indication that stock need to be moved off the pasture. The first clinical signs may be as subtle as animals preferentially seeking shade or a large number of sheep rubbing faces.

Photosensitive animals should be kept out of direct sunlight; when ulceration is severe antibiotics may be necessary to treat secondary infection.

Nutritionally, quality low protein roughage hay and adequate fresh water should be readily available. Recovery can be prolonged and fatality is common if liver damage is severe.

Your district vet is available to discuss the disease should it occur on your farm.

With the intermittent rain we have had over the last few weeks, producers should be wary of lupinosis, a fungal disease caused by *Diaporthe toxica*. The fungus infects all parts of the plant but is more commonly seen on dry steams at maturity and on pods and in some cases seed.

Grazing lupin stems with high levels of toxin usually results in livestock getting lupinosis within a couple of days, while at lower doses the disease develops over a number of weeks.

Lupinosis causes liver damage to affected stock and affected animals have a loss of appetite and weight loss.

Wool growth and staple strength may also be reduced while twinning and conception rates may be significantly reduced.

Weaners are more susceptible to the effects of lupinosis because they feed less selectively and are more likely to consume stem material as compared to adults.

In cattle, lupinosis causes poor performance, photosensitization and liver damage – very similar to pregnancy toxemia with cattle dying suddenly when grazing stubble.

Reducing the risks of lupinosis focuses on reducing the need for livestock to graze lupin stems. In addition:

- Ensure there is sufficient lupin grain and green weeds available in the stubble paddock.
- Graze lupin stubbles soon after harvest. The longer grazing is delayed the greater the risk that rain will promote fungal growth.
- Avoid putting hungry stock onto lupin stubbles.
- Do not graze stubbles that contains discolouration that may be attributed to the fungus.

### Lupinosis

**District Veterinarian Rahul Shankar**

Producers around the district are grazing lupin stubble paddocks for various classes of stock.
Grain poisoning – please be mindful!

District Veterinarian Tim Biffin

Grain poisoning, also referred to as rumenal acidosis, as most people will know, is related to excessive grain ingestion. In affected ruminants, grain is not being digested properly and instead ferments in the rumen. In severe cases high levels of lactic acid and other toxins are produced, which, as they are absorbed into the animal’s circulation cause severe illness often resulting in sudden shock and death.

A recent disease investigation involving sudden death (without apparent symptoms) of 14 merino lambs from a mob of approximately 400 caught a seasoned Riverina sheep producer by surprise. The mob had been grazing a barley stubble (that had no obvious grain spills) for approximately five days before the deaths occurred. From postmortem examination of two lambs there was evidence of rumenal acidosis:

- erosions of the esophagus lining
- sloughing of the rumen wall with associated discolouration/ inflammation
- “watery porridge” appearance to the rumen contents.

The lambs had been moved onto dry pasture at the time of inspection, however, upon paddock inspection of the barley stubble it was apparent that a spreader had not been used on the back of the header at the time of harvest. 4-14 grains of barley were observed from parting the strips of trash that had been left in the stubble from harvest. There was also the occasional whole head of barley observed.

It is very likely that the use of a spreader could have avoided this situation from occurring as the sheep were able to follow and engorge on a trail of barley.

Grain poisoning is a disease of prevention, not treatment (as response to treatment is often poor). With the increased reliance on grain (including stubbles) as a feed source across the Riverina over the next few months, producers are advised to make informed management decisions. Please contact your local district veterinarian for further information.

Announcements

RAMping Up Repro Workshops

Zoetis has partnered with Sheep Connect NSW (funded by Australian Wool Innovation (AWI)) and Holmes Sackett to provide sheep producers current best practice information on ram health and inspections as well as reproductive drivers and management tools in the lead up to and post joining. The format will be a small, hands-on, theoretical and practical workshop.

The aim is to have some rams present in the yards to be able to discuss what and how to look for when conducting pre-joining examinations this will include a the opportunity for each producer to conduct a pre-joining inspection.

There will also be extension materials provided (written predominantly by Dr Matt Playford with some key collaborators), as well as morning tea and lunch.

The keynote speakers will be:
• Dr Matt Playford (Dawbuts) a leading veterinarian and parasitologist
• Megan Rogers (SheepConnect NSW) and/or a representative from AWI (TBC) to provide a market update
• David Brown (Holmes Sackett) delivering the economics of ram selection and the value in your enterprise.

Producers will hear from industry experts on:
• how to complete pre-joining ram checks, and when to do this to ensure that rams are prepared in good time for their work
• find out what factors impact on the performance of your rams
• see for yourself, what to look for when inspecting rams for soundness (events will be run on farms)
• practical implications of management to ram performance
• true costs of rams and how good choices give pay back through the flock.

There will be five events held in late January - early February which will coincide well for those preparing rams for autumn joining. (Places are limited to ensure that these events are as hands-on as possible)

Dates as follows:
30 January – Harden
31 January – Yass
1 February – Bombala
2 February – Cooma
3 February – Tumbarumba

PLEASE NOTE: precise locations are available at registration online at:
www.eventbrite.com.au/e/ramping-up-repro-registration-30322511448

Cost per person is $75, which includes morning tea, lunch and workshop materials.

Lucerne online – an online course for farmers and graziers

Answers to the National Livestock standstill quiz
1. c
2. d
3. a
4. b
5. c

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