Animal Health Update

The benefit of 6 in 1 vaccinations  
*District Veterinarian Tim Biffin*

Given that many sheep producers are currently lamb-marking some may be considering: what is the difference between 5 in 1 and 6 in 1 and is there any benefit.

In short, I believe there is a benefit in 6 in 1 vaccines over 5 in 1, with, the greatest return on this investment achieved through administration to fat lambs. That is to say, you should be vaccinating any trade lambs with a 6 in 1 vaccine.

5 in 1 is a type of multivalent clostridial vaccine, providing protection against multiple different clostridial bacteria. The use of such vaccines in sheep (as per label guidelines) is considered a minimum standard of practice. This is because the probability of clostridial disease occurring and the consequence of an outbreak in sheep flocks are both quite significant (and can be devastating).

All sheep at their first exposure MUST receive two multivalent clostridial vaccines 4-6 weeks apart to have any confidence in the vaccine’s efficacy. Given that the first vaccine exposure should be as early in the sheep’s life as possible, that is, as lambs, most producers find this easiest to achieve at lamb marking and then at weaning. Following this, annual booster vaccination is also required (this might be given pre-lambing to help with the lamb’s immunity).

6 in 1 is a multivalent clostridial vaccine, like 5 in 1, however it also provides protection against *Corynebacterium pseudotuberculosis* (the causative agent of ‘cheesy gland’). This vaccine will not prevent 100% of cheesy gland lesions; however, it will reduce the incidence of the disease. Cheesy gland lesions are usually pussy lumps affecting lymph nodes of the head and neck, but may also cause similar lumps within the chest. At an abattoir, these will cause significant amounts of carcass trimming, and subsequent financial deductions to the producer. Beyond the reduction in carcass quality, these lumps have the potential to cause other issues in older sheep, thus, they are best minimized from the flock.

Grass tetany  
*District Veterinarian Emily Stearman*

The current seasonal conditions have been highly conducive to cases of grass tetany right across the Riverina.

Risk factors for low blood magnesium:

- Cattle under stress – particularly lactating cows (higher requirement for magnesium).
- Breed predisposition – Angus, Murray Grey, Shorthorn’s more susceptible.
- Warming day/night temps - >8°C night temperatures following four or more days of <7°C night temperatures when cattle are grazing grass or cereals.
- Rapidly growing short grass or cereals on high potassium soils.

Magnesium is required for normal muscle function and is important in many other metabolic processes. Clinically low magnesium levels occur when a combination of the above factors exists.

If grass tetany is diagnosed on a property the risk of recurrence in subsequent years is high. However it is easily managed by supplementing the diet with magnesium. At this time of year many people are feeding cereal hays; magnesium supplements can be applied directly onto the hay, on a daily basis. Various commercial and home mixed licks are also beneficial, however licks containing greater than 30% magnesium are quite bitter and animals will avoid them. It is common practice to mix Ag lime and salt with Caumag for a dry lick, adding molasses to create a wet lick.
If you are experiencing sudden deaths or are concerned about your herd, contact your local district vet for specific advice.

**Bloat**

*District Veterinarian Rahul Shankar*

Bloat occurs when gas is trapped in the rumen. Bloat occurs more often at this time of year because of the rapidly growing young fresh grasses, such as rapidly growing rye grass, and legumes such as clovers, medics and Lucerne. Bloat becomes severe when the animals are unable to release the gasses from the rumen (eructation) because of an accumulation of froth locking gasses in the rumen. Feed low in fibre and high in protein, soluble sugar and water content leads to an increase in froth and gas build up.

Bloat is a major cause of sudden death in cattle. Bloat in cattle and sheep often occurs with pulpy kidney, so it is recommended to vaccinate against clostridial disease (5-in-1, 6-in-1, 7-in-1 or TASVAX 8-in-1) before putting stock out onto fresh lush pasture.

When cattle are moved onto bloat-producing pastures they will commonly bloat within an hour or two. Prevention includes filling the animal with hay each day before grazing, applying pasture oils, using rumen capsules, drenching the rumen directly with oil, applying anti-bloat products to the flank or water troughs, using anti-bloat licks and blocks and also considering use of fermentation modifiers such as monensin.

Treatment of bloat in severely affected animals needs rapid relief. Producers could try administering vegetable oil (250–500 mL) or paraffin oil (100–200 mL) via a tube or drench gun into the mouth when swelling is noticed. However if the animal is in distress then call for private veterinary assistance immediately.

**Management strategies to improve lamb survival**

*District Veterinarian Kristy Stone*

The loss of lambs between the lambing and weaning period is a major component of reproductive wastage.

The most important determinant of lamb survival is birthweight which is heavily influenced by ewe body condition during pregnancy, particularly during late pregnancy. Ewes in ideal body condition (CS3) at lambing give birth to heavier lambs than ewes in poorer body condition (CS 2). Birth weights are most sensitive to changes in ewe condition in late pregnancy – an increase in one body condition score of the ewe, can increase lamb birth weight by up to 0.5kg.

Poor nutrition can also impact negatively on maternal behavior and milk production resulting in mismothering and starvation.

Managing twin and single bearing ewes separately can help tailor nutritional requirements to increase birthweight in twin lambs while reducing an increase in dystocia in single-born lambs. Ewe body condition can be easily monitored during pregnancy allowing feed to be adjusted accordingly. While dystocia can be associated with over-feeding of fat ewes (CS4 or higher) in late-pregnancy, (particularly single bearing ewes) however poor ewe pelvic development, incorrect sire selection and malposition will also contribute to dystocia and should be considered if dystocia is occurring.

Protection from shelter is important to minimize susceptibility to starvation particularly in smaller lambs (particularly twins). Rows of tall grass, trees, shrubs, or native tussocks can provide adequate shelter to reduce wind chill. Importantly paddocks also need to be selected based on feed availability, low work risk and size of the paddock/mob.

Lamb losses due to predators is often secondary to other conditions (exposure, starvation, or mismothering) however can account for 5-10% losses and shouldn’t be overlooked. Baiting for foxes should commence prior to and during lambing.

Investigating lamb deaths can help tailor management strategies for lamb survival in subsequent years.

**Summary**

1. **Ewe nutrition is VERY important**
   a) Ewes in better condition give birth to heavier lambs
   b) Aim for BCS 3 in ewes during pregnancy - higher for twin bearing ewes
   c) Monitor BCS regularly
   d) Scanning for twins/singles to tailor nutritional requirements

2. **Paddock selection**
   a) Reduce wind chill
   b) Small lambs, particularly twins are most susceptible to wind chill
   c) Prepare paddocks well in advance (something to keep in mind for next year)

3. **Predator control**

4. **Investigate lamb death**
Information sessions

Information sessions to be held across the Riverina discussing:

- J-BAS and the recent BJD management changes.
- LPA (Livestock Production Assurance Program) changes. These changes apply to ALL livestock producers.
- Biosecurity planning - relating to the LPA changes and the BJD management changes.
- Funding opportunities for land managers to improve and manage the health of our landscapes.

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<tr>
<th>Town</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>Hay</td>
<td>Wednesday 16 August</td>
<td>4pm-5:30 pm</td>
<td>Hay Services Club, 371 Murray Street, Hay</td>
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<tr>
<td>Gunbar</td>
<td>Thursday 17 August</td>
<td>10:30am-12:00 pm</td>
<td>Gunbar Church Hall</td>
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<tr>
<td>Darlington Point</td>
<td>Tuesday 22 August</td>
<td>1pm-2:30 pm To follow paddock health walk being run in the morning</td>
<td>Tubbo Station, 14070 Sturt Highway, Darlington Point</td>
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<td>Griffith</td>
<td>Wednesday 23 August</td>
<td>8:30am-11:30am</td>
<td>Southside Griffith Leagues Club, 2 Bridge Street, Griffith</td>
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<tr>
<td>Ardlethan</td>
<td>Wednesday 23 August</td>
<td>1pm-2:30 pm To follow paddock health walk being run in the morning</td>
<td>Bygoo Station, 40 Sprys Lane, Ardlethan</td>
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<tr>
<td>Narrandera</td>
<td>Thursday 24 August</td>
<td>8:30am-10:30 am</td>
<td>Ex Serviceman's Club, 41 Bolton Street, Narrandera</td>
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<tr>
<td>Young</td>
<td>Thursday 24 August</td>
<td>9:00am-12:00pm</td>
<td>Young Services Club, Flamingos Room, 42 Cloete Street, Young</td>
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<tr>
<td>Cootamundra</td>
<td>Thursday 24 August</td>
<td>2:00pm-4:00 pm</td>
<td>Cootamundra Library, 61-71 Wallendoon Street, Cootamundra</td>
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<td>Yanco</td>
<td>Friday 25 August</td>
<td>8:30am–10:30 am</td>
<td>All Serviceman’s Club, 11 Main Avenue, Yanco</td>
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<tr>
<td>West Wyalong</td>
<td>Tuesday 29 August</td>
<td>10.30am-12:30pm</td>
<td>Elders, 305 Neeld Street, West Wyalong</td>
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Riverina Local Land Services
District Veterinarians

**Wagga Wagga**
Tim Biffin and Emily Stearman
6923 6300

**Young**
Elizabeth Braddon and Rahul Shankar
6381 4700

**Gundagai**
Kristy Stone
6940 6900

**Hay**
Courtney Simkin
0427 418 006

**Narrandera**
Sophie Hemley
6958 1800

www.riverina.lls.nsw.gov.au