Rickets and calcium deficiency in lambs on cereal crops by District Veterinarian Gabe Morrice

This area has had cases of calcium deficiency and rickets in lambs grazing cereal crops in past years when conditions are right. A combination of factors leading to low calcium levels and rickets has meant some lambs have gone down particularly when moved or yarded. Internal parasites and malnutrition can also contribute to the development of rickets.

Although some affected lambs respond well to injections of calcium, other cases have been found to have rickets (soft skeletal bones) as well resulting from a lack of calcium and possibly vitamin D. These cases may exhibit lameness as a result of bone fractures.

Affected lambs are generally either lame or down and unable to rise. They can appear bright and alert.

Frequently when examined they have elevated temperatures and may have fractured bones in their legs or their ribs.

Autopsies have found very soft ribs and facial bones as well as fractures of the ribs. Blood test results show a mixed range of calcium levels (but often low).

Many overcast days, along with the naturally short day length of winter, combined with possible antivitamin D factor in green growing cereal crops, are leading to a low availability of vitamin D.

Vitamin D is required for the absorption of calcium and lambs have a high requirement for calcium to calcify their growing bones.

If we could predict a predominantly overcast winter, it would be beneficial to give preventive vitamin D to lambs at marking and/or weaning.

If alternative pasture containing legumes, or sun-cured legume hay (Lucerne or clover), can be provided, this will assist in overcoming the problem. Yarding the lambs to treat with injectable vitamin D may exacerbate the problem.

Stock-grade lime/coarse salt provided as a loose lick is recommended to reduce the incidence of calcium deficiency. The addition of Causmag to this lick will also be beneficial to prevent subclinical grass tetany and thus benefit growth rates whilst grazing cereals.

Producers are encouraged to seek advice from their veterinary adviser if they observe similar signs in their lambs due to the complexity of causes.

Not all lame lambs will be due to rickets, they make up a small percentage of the lame lambs seen.

The important thing is to get all lame lambs checked so that the correct treatment can be given as soon as possible, leading to minimal losses.

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Winter considerations for sheep by Regional Veterinarian Eliz Braddon

Cold weather – on its own, this is not such a big problem but it will certainly increase energy requirements for stock.

By adding hay to a feeding regime, it will help stock to have a "little furnace" in their rumens as heat is created when the hay is being digested. Especially important if bad weather is predicted to last a few days.

Additionally, providing paddocks with some shelter is also great - hills/slopes that allow stock to get out of the wind; as well as trees, rock formations etc.

Add wet and windy conditions and there is cause for more concern. These conditions will significantly increase energy demands. This is particularly true for pregnant ewes about to lamb, lambs at foot and freshly shorn sheep.

Pregnant ewes that are only weeks off lambing could be impacted by cold, wet, windy weather due to the increased energy required to keep warm in addition to the already high energy demands of carrying lambs.

Ewes on pasture only or crops only - these pastures/crops will now be significantly full of water so their overall energy benefit for the ewe will be decreased. Hay here will help to not only provide heat for the ewe but also increase the fibre content of the diet. If ewes are light or overly fat and carrying multiples, then energy may need to be supplemented as well using grains/pellets. This will provide a high energy hit with a small volume.

Ewes already on grain supplements - producers just need to watch that they are coming to the feeders/trails. Sometimes when the weather is really miserable, they will stay in the sheltered areas of the paddock and not continue to grain feed. Two results are possible – can start to see metabolic issues like pregnancy toxemia despite available feed OR sometimes ewes set themselves up for a grain overload when they come back onto the feeders - more likely with wheat or barley than oats.

Newborn lambs at foot - lambs lose heat very quickly because of the large surface area to body weight ratio.

Mothers with lots of milk (eg fed 20% fibre in diet and good quality diet overall) will certainly be better at protecting their lambs than those with limited milk supplies.

Having plenty of shelter options in a paddock to get lambs out of the wind as much as possible is also key (eg Trees, rock formation, hills etc).

Lambs <3kg body weight are at greatest risk so multiples generally are the ones to be wary of.

Freshly shorn (eg < 1week usually) sheep - sometimes we get mortalities with shearing at this time of year when combined with wet, windy weather.

If possible, shed fresh shorn sheep for a day or two until weather dries up - this will help them maintain body temperatures without their "clothes".

Additionally or if shedding is not possible, feed them hay straight out of the shed to again provide an internal heat source. Providing shelter in a paddock is also key - gullies, trees, downwind slopes etc.

What does Local Land Services do about lice?

by District Veterinarian Tim Biffin

Currently, sheep lice is not a notifiable disease, and it is only regulated in the public domain. Under the Stock Diseases Act (1923) it is not an offence to have lousy sheep on your farm. However, it is an offence if your lousy sheep stray onto a neighbour’s property or onto public land, such as a public road or travelling stock reserve (TSR).
With this level of state regulation, the responsibility of farm biosecurity (lice control) has been largely passed onto producers. Therefore, producers should have their own plan for the control, eradication or prevention of sheep lice on farm. Local Land Services is available to assist in this process.

**Please talk to your neighbour**

In the event that a neighbour is causing difficulty (re lice), Local Land Services may be consulted for advice on the management of the disease.

Producers should discuss this information with neighbours (including the neighbour causing issues) in attempt to reach a solution. If a plan is developed, it should be documented and discussed with your district veterinarian.

**Boundary fences**

Often boundary fences are an issue: who’s responsible for it, cost sharing etc. In this case, if over the fence negotiations fail, producers are referred to a Community Justice Centre for mediation support [http://www.cjc.justice.nsw.gov.au/](http://www.cjc.justice.nsw.gov.au/).

Failing this, a party may then apply to the local Court or local land board for an Order to be issued, as detailed in the *Dividing Fences Act 1991*.

**Frustrating re-infestations**

Despite an okay fence line, and the distaste you may have for your neighbour, it is very possible that you are re-infesting your own flock and not realising it.

In this event, the district veterinarian should be contacted to help you develop a technically sound plan for louse control on your farm. You never know, this step might actually identify faults in your management that you didn’t realise. Local Land Services may also develop one with your ‘problem’ neighbour – depending on the response received.

Only once you actually have an approved lice control plan, documented, and in place on your farm can local land services will provide you with regulatory support. Local Land Services staff are available to assist you in this process.

**Many plans in practice**

Regional control groups for sheep lice are generally the most successful means of control; however, they do require producer commitment, motivation and cooperation.

Riverina Local Land Services will assist in this process, as has been seen in the recent lice control group that has been established in the Young area, pictured below. You could think of these as similar to the old footrot control groups.

**At the saleyards**

Currently, the livestock agents in Wagga have nominated the Wagga Wagga sheep & lamb sale as a “lice-free” sale. Subsequently, local land services staff monitor for and regulates lousy sheep in the saleyard as part of routine attendance. Unfortunately this method is only capable of identifying obvious cases – it is by no stretch of the imagination a guarantee of disease (lice) freedom.

**Managing Russian Wheat Aphid**

Following the decision that the newly arrived pest, Russian wheat aphid (RWA) is not technically feasible to eradicate, growers are advised to seek...
advice from local agronomists about how to manage the pest in cereal crops.

RWA can infest a large variety of cereal crops – wheat, barley, oats, rye, triticale and rice and other grass species.

It has a high dispersal potential, including being carried large distances by the wind, and on machinery, equipment and live plant material.

Although the aphid is considered a serious pest, it isn’t yet known how it will affect crops in Australia.

There are many factors that will impact how well it does in our environment including natural enemies which attack RWA including parasitic wasps, ladybird beetles, lacewings, damsel bugs, hoverflies and entomopathogenic fungi.

The first case of RWA was identified in a wheat crop at Tarlee in South Australia’s Mid North on 13 May and is now considered to be widespread in South Australia.

RWA is approximately two millimetres long, pale yellowish green with a fine waxy coating. The body is elongated compared with other cereal aphid species.

Plants with heavy infestations of RWA have their growth stunted with tillers lying almost parallel to the ground.

To date, RWA has not been reported in NSW. However, if you are suspicious you may be affected by RWA, please contact one of our local land services agronomists immediately.

Image 3: Russian wheat aphid (Diuraphis noxia) colony. Phil Sloderbeck, Kansas State University, Bugwood.org

Preventing post-marking arthritis by District Veterinarian Kristy Stone

Arthritis in lambs develops as a result of bacteria entering the body through infected marking or mulesing wounds and spreading around via the bloodstream. The bacteria lodge in the joints causing inflammation; causing one or more affected joints to become hot, painful and swollen. Outbreaks of arthritis in lambs can be caused by a variety of bacteria.

Treatment with antibiotics can be successful if infection is caught early however advanced cases often do not respond due to irreversible damage in the joint.

Prevention is crucial to the management of arthritis. Methods include:

- choosing the right lambing paddock
- lambing on a well grassed paddock with minimal faecal contamination
- maintain good hygiene at lamb marking
- avoid wet or dusty yards
• disinfect marking & mulesing instruments frequently
• place lambs onto their feet when released from the cradle to avoid contamination of fresh wounds
• avoid yarding lambs in yards for prolonged periods
• provide optimal conditions for wound healing
• leave lambs undisturbed after marking for 3-4 weeks
• avoid pastures with long wet grass
• vaccination
• consider vaccinating ewes against Erysipelothrix in cases where Erysipelothrix is the causative bacteria.

Identifying the type of bacteria responsible is important for determining suitable treatment and prevention protocols. Your district veterinarian can perform a post mortem and submit samples to the laboratory to assist with diagnosis.

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