

A photograph of several sheep in a grassy field. A semi-transparent white oval is overlaid on the right side of the image, containing the title text. The background shows a line of trees and a fence in the distance.

RIVERINA LOCAL LIVESTOCK UPDATE

December



Local Land
Services

Case study: The Facts on How to Vax

By Elizabeth Ferguson, Team Leader Animal Biosecurity & Welfare

Q All livestock

Vaccines have changed the way farmers and vets manage many infectious diseases, and there is no doubt that vaccines pay for themselves by preventing some serious, production-limiting diseases. However, it is important to understand how to administer vaccines correctly to prevent some costly mistakes.

Vaccinating your sheep and cattle using the correct technique can result in fewer vaccination reactions (including lumps), a lower chance of causing infections at the site, and reduced carcase trimmings and condemnations at the abattoir. Some vaccines can cause serious health issues if not properly administered. For example, Gudair®, if administered incorrectly, can result in damage to the spinal cord, resulting in a severe neurological disease known as “Gudair staggers”.

Some simple steps can be taken to prevent the unwanted side effects of vaccination and can help to improve the efficacy of the vaccine.

Firstly, make sure all vaccines are stored and used according to the manufacturer’s guidelines. Most vaccines contain preservatives to prevent bacterial contamination, but if stored incorrectly, or used past its expiry date, the vaccine will either have reduced efficacy or may cause infection in the animal. Some vaccines can only be used for 24 hours after broaching, whereas others can be used up to 30 days post-broaching. If in doubt, read the label!

Prior to vaccinating, it is important to ensure you have the correct equipment. New needles should be used when starting to vaccinate, and needles should be changed frequently (every 50-100 animals). This reduces the risk of infection and damage to the animal’s skin. Needles for lambs and sheep should be 6mm (1/4 inch) and 18 gauge. Needles for cattle should be 12mm (1/2 inch) and 16 gauge. To prevent human injury while vaccinating, it is recommended to use vaccinators with a shroud covering the needle, such as the Safeshot®, or the Sekerus® vaccinator when using Gudair®.

Vaccines should be stored in a fridge or cooler when not in use. When using the vaccine, make sure it is held within an insulated vaccine pouch to protect it from heat and sunlight, both of which can reduce the efficacy of the vaccine.

Most livestock vaccines are designed to be given “subcutaneously”, which means injecting in the space between the bottom layer of skin and the top layer of muscle. Most unwanted side effects occur when the vaccine is inadvertently administered into the muscle, causing a reaction resulting in lumps and potentially abscesses.

This is especially important when using oily vaccines such as Vibrovax®, Gudair®, and Piliguard®, as lumps can readily occur if the vaccine enters the muscle.

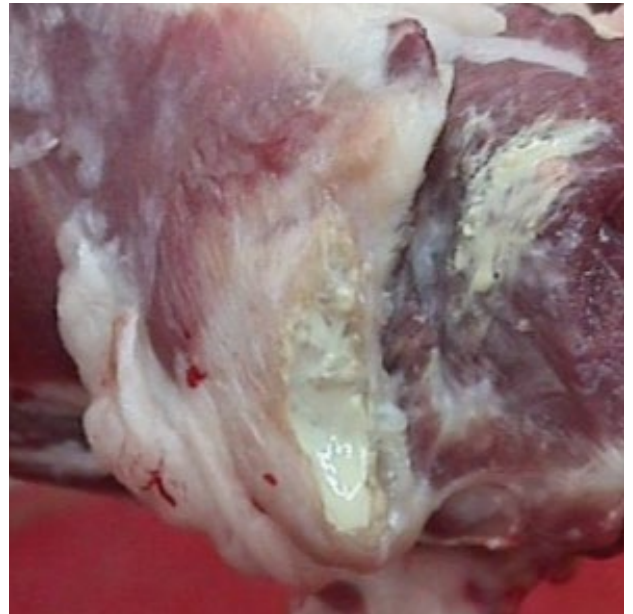


Image: Injection site reaction in the carcass (from www.animalhealthaustralia.com.au)



Image: Injection site abscess which compressed the spinal cord, causing neurological signs in lambs

To inject the vaccine into this space, the bevel of the needle should be angled so that it is facing the skin and the needle inserted at a 45 degree angle to the skin.

You should feel a slight decrease in resistance when the needle is in the correct position, and the vaccine can then be administered.

In the sheep, the correct place to vaccinate is on the side of the neck, approximately halfway down the neck. The site of vaccination is important as if there is a local reaction to the vaccine, any lumps or abscesses are removed at the abattoir with minimal carcase trimming required. This site is also important when using Gudair®, as it minimises the risk of an abscess pressing against the spinal cord, causing staggers.

Cattle should also be vaccinated on the side of neck, halfway between the head and the shoulder, taking care to avoid the major blood vessels that run on the lower side of the neck, and the tough (nuchal) ligament, running on the upper side of the neck.

After using the vaccines, make sure all needles are disposed of in a sharps container, and store the vaccine as per the label instructions. Make a record of the batch number and expiry date of all vaccines used in case any adverse events occur which need to be investigated by the manufacturer.

Injectable vaccines are designed to prevent some of the more common infectious diseases we see in livestock. However, if not used properly, the efficacy of the vaccine may not be optimal, or the vaccine itself may cause serious health issues. It is worth reading the label prior to using the vaccine, making sure all your equipment is properly maintained and ensuring the vaccines are being administered correctly.

For any advice on livestock vaccine usage or programs, please contact your local District Vet.

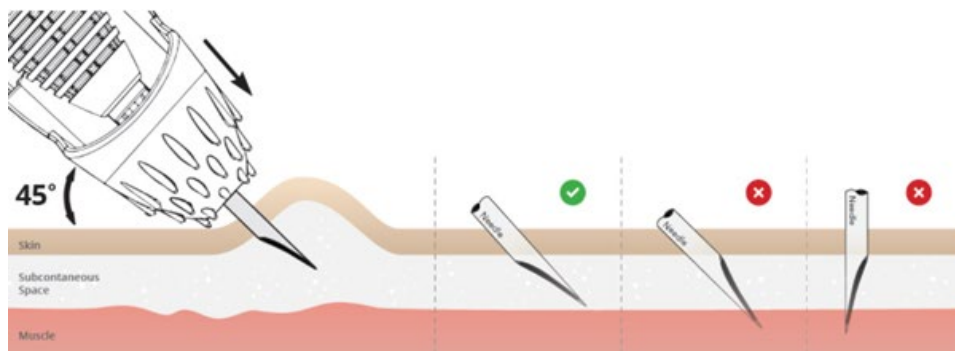


Image: Correct insertion of needle under the skin (image from www.zoetis.com.au)

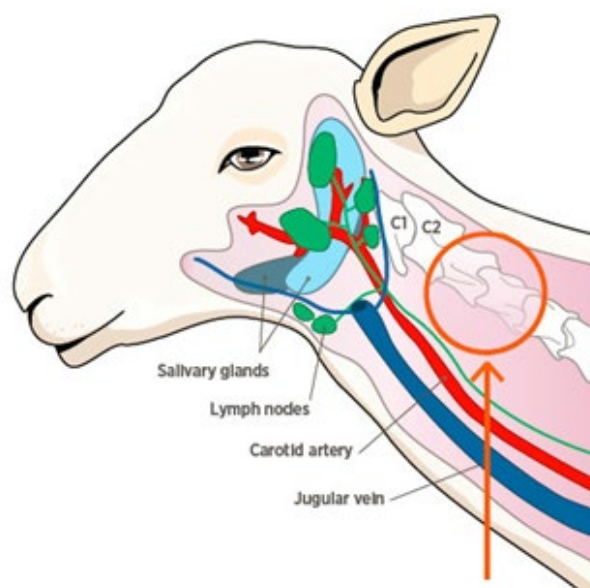


Image: Correct site of vaccination in the sheep (from www.zoetis.com.au)

Announcements and additional warnings

EXOTIC DISEASE AWARENESS

Over the next few months, we will look at a number of exotic animal diseases that have been declared as priority diseases. This means there is a high risk of these diseases entering Australia, and state and federal departments are on alert for any signs in our animals. These diseases are foot and mouth disease, avian influenza, lumpy skin disease, African horse sickness and African swine fever.

LUMPY SKIN DISEASE

Lumpy skin disease (LSD) is a viral disease that affects cattle. The virus, which is related to sheep pox, is spread by biting insect vectors, such as mosquitoes. The virus is very stable in the environment, and can survive for up to 6 months in the environment, and up to 18 days in dried hides. It can survive for months in skin lesions and scabs.

Clinical Signs

The LSD virus does not cause a high number of deaths, but most infected animals develop a fever, depression, and prominent skin nodules. These nodules can occur anywhere on the body and vary in size from 1cm to 5cm in diameter. The nodules eventually ulcerate, leaving small open wounds over the animal's body. Infection also results in a marked reduction in milk yield and abortion in pregnant animals, with other complications commonly occurring, such as pneumonia and mastitis. The disease can also result in infertility in cows and bulls.

How Are We Keeping it Out?

Australia has very strict biosecurity to ensure that any animal products, including cattle hides, that have been imported have been treated to ensure they are free of any virus. The greatest risk of introduction is through illegally imported animal products, which our biosecurity teams are constantly monitoring and policing. Currently, the virus is not in any close neighbouring countries, and so the risk of transmission by insect vectors from our neighbours remains low.

What Can We Look Out For?

As the Australian cattle herd is currently free of LSD, if the virus enters Australia we can expect that large numbers of vulnerable cattle will become infected. It is important to watch out for any suspicious signs, such as cattle with milk drop, reproductive issues (including abortions) and any changes in the skin. If you suspect anything suspicious, please do not hesitate to call your local District Veterinarian or the Emergency Animal Disease hotline on 1800 675 888.

For more information on LSD, you can go to:

- <https://www.awe.gov.au/biosecurity-trade/pests-diseases-weeds/animal/ead-bulletin/ead-bulletin-no-121>



*Image: Cattle with severe Lumpy Skin Disease
(photo from www.fao.org)*

GRAZING SHEEP ON STUBBLES

Nicholas Wright, CSU Veterinary Science Student

It is coming into that time of the year where stubbles are sought as a source of feed for grazing stock. It is important to ensure you understand the common misconceptions, the problems associated, and ways to maximise the usage of these pastures.

Stubble components vary widely due to species variation, interactions with climate, soils and crop management and paddock conditions. Stubble component quality is consistently below maintenance quality for commonly grazed crop stubbles. Ensure you prioritise ewe lambs followed by pregnant ewes or ewes in preparation for joining followed by older or dry ewes for access to the highest quality stubbles. To maintain weight without supplementation a stocking rate of 3 dry ewes/hectare for 7 weeks is recommended.

Things to consider:

- Do the classes of stock grazing stubbles need supplementary feed to maintain condition score or grow? Protein content of stubbles is usually below 10% (14% is required for growing stock).
- Supplementation with salt (to drive water intake) and calcium (cereals are low in calcium)
- Water supply: sheep require more water when grazing dry feed (3-5 L per head per day, intake will increase if salt is present in the diet).
- Acidosis: there is an increased risk of acidosis on stubbles as there is no gradual introduction of grain. Young stock are at the highest risk. This risk is heightened if there is grain spillage during harvesting. Potentially place on barley or lupin stubbles before wheat stubbles to slowly introduce grain to the diet.
- Eye trauma and spread of pink eye in dry, dusty conditions over summer.

More information about grazing modern stubbles can be found at:

- [Stubbles | Australian Wool Innovation](#)



PHOTOSENSITISATION IN LIVESTOCK

Adelaide Nunn (CSU Final Year Vet Student)

What is photosensitisation?

Photosensitisation is a disease affecting cattle, sheep and goats whereby the consumption of toxic plants causes an overload of photodynamic agents which react with sunlight to cause skin damage.

There are two forms of photosensitisation, primary and secondary, which are categorised based on how the disease develops.

Primary photosensitisation is caused by the ingestion of toxic plants containing light-sensitive agents which react to sunlight. In Australia, the most common of these is called phylloerythrin.

When livestock ingest these toxic plants, the phylloerythrin is absorbed into the bloodstream and when exposed to sunlight, these pigments can fluoresce, resulting in skin damage.

In these cases of primary photosensitisation, production losses can be significant, but the liver is not damaged and mortality of stock is less likely to occur.

Plants containing toxins that cause primary photosensitisation include:

- St John's wart
- Buckwheat

Secondary photosensitisation occurs when there is liver disease which stops the normal metabolism of photodynamic agents by the liver. The levels of photodynamic agents then build up in the bloodstream. If an overload of these agents occurs, skin exposed to sunlight becomes severely damaged. The initial cause of liver damage may be through the consumption of certain toxic plants or by other insult. If the liver damage in livestock is severe, there are often mortalities.

Plants containing toxins that cause secondary photosensitisation include:

- Hairy panic
- Sweet grass
- Caltrop
- Heliotrope
- Paterson's curse
- Lantana
- Fungus of lupinosis

Clinical signs?

Signs of photosensitisation include red, weepy and swollen skin, which may lead to ear drooping or closed eyelids. If excessive swelling is present, animals may have difficulty breathing or grazing. In severe cases, the surface of the skin may crack, turn black and slough off.

In sheep, the face, ears and muzzle are the worst affected areas, however, sheep that have been recently shorn may be affected over the whole body.

In cattle, lesions are usually limited to white-coloured areas but skin damage can occur along the back and on the udder.

There is intense irritation and pain associated with the skin damage. Affected animals will be agitated and lose their appetite, seek shade and scratch against fixed objects.

The severity of the skin lesions depends on the type and amount of toxic plant ingested, the stage of growth of the plant and the amount of sun exposure.

In cases of secondary photosensitisation with liver damage, animals may also become jaundiced in the eyes, skin and gums.

In cases of primary photosensitisation, signs generally appear within 2-3 days of ingesting the plant. However, in cases of secondary photosensitisation, signs may not occur until weeks after the animals have been removed from the toxic pasture.

Treatment?

Treatment strategies are directed at removing the toxic plants and protecting livestock from sunlight:

1. Remove stock from the paddock where the disease is occurring.
2. If possible, put stock in a darkened shed.
3. Provide stock with water and cereal hay (or lower quality hay with no green colour).
4. Seek veterinary attention for severely affected or valuable animals.

It should be emphasised that livestock with photosensitisation are highly allergic to sunlight and this condition is not sunburn. Affected livestock require complete protection from sunlight for at least a week.

Mild cases of primary photosensitisation should improve in less than a week after being removed from the toxic source. In severe cases or where liver damage is suspected, recovery may be more prolonged.

Prevention?

Appropriate pasture management and control of toxic plants is important in preventing the onset of photosensitisation. In high-risk periods (spring and summer) regular assessment of stock should be conducted to enable early recognition and treatment of the condition to minimise losses.

SURVEY - DO YOU FARM BEEF CATTLE?

If so, please tell us what matters most to you about managing diseases in your beef cattle.

Many diseases in cattle can be difficult to diagnose and even more difficult to treat. There are lots of resources available to provide guidance with disease prevention, but no one farm is the same. What works for one farm might not work for another.

Jake Fountain, a PhD student with Charles Sturt University and the Graham Centre for Agricultural Innovation, is undertaking a study that looks at the value of on-farm disease prevention for the Australian beef producers.

By participating in our survey, your responses will highlight the priorities of your beef farming style so that we can improve messaging around disease prevention to match these priorities.

All participants that complete the survey will also have the chance to enter our draw prize, with a chance to win:

- 1 of 10 \$50 Visa gift cards
- 1 of 5 \$100 Visa gift cards
- 1 of 2 \$300 Visa gift cards
- 1 of 1 \$700 Visa gift card

Click the link below to be part of the conversation.

- https://www.surveymonkey.com/r/BEEF_FINAL

Survey closes 23rd December 2021.



MOVED OR CHANGED CONTACT DETAILS? PLEASE LET US KNOW

Accurate records are essential for our response to emergencies affecting agriculture and animals, and keeping you updated on relevant news and events. We'd greatly appreciate landholders keeping us informed on any change in your contact details.

To let us know of any changes, please contact us on 1300 795 299.

MERRY CHRISTMAS & HAPPY NEW YEAR FROM THE LLS VET TEAM

Thanks for your support over 2021 in keeping our local livestock industries healthy and safe!

Our offices will be closed from 12:00 pm Friday 24 December 2021 for the Christmas break and will re-open at 8:30 am Monday 10 January 2022.

For life threatening emergencies, please call 000 immediately.

If you suspect a significant animal pest, disease, or residue or experience a large number of unexplained livestock deaths, please contact the Emergency Animal Disease Hotline on 1800 675 888.

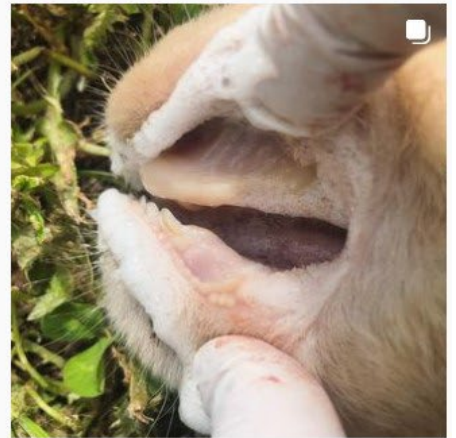
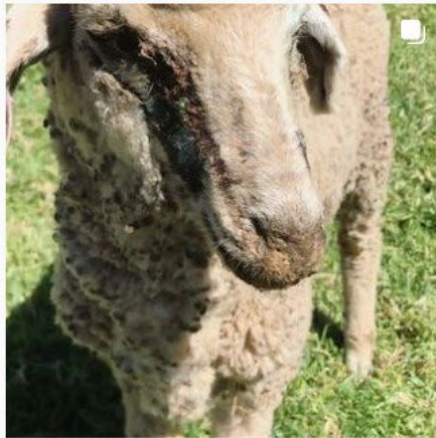
If you need to report an exotic plant pest or disease, please call the Plant Pest Hotline on 1800 084 881.

For assistance with non-emergency livestock health issues, please contact your nearest private vet.

Enjoy the Christmas break, stay safe and we look forward to seeing you in 2022!



Follow us at [@locallivestockvets](https://www.instagram.com/locallivestockvets) on Instagram to see photos and videos direct from the paddock!



CONTACT YOUR CLOSEST DISTRICT VETERINARIAN

WAGGA

Emily Stearman - 0437 644 714 or 6923 6300

Dione Howard - 0428 115 134 or 6923 6300

NARRANDERA/GRIFFITH

Georgia Grimmond - 0427 418 006

HAY

Elizabeth Ferguson 0439 557 567

GUNDAGAI

Amy Underwood - 0428 262 112

YOUNG

Elizabeth Ferguson 0439 557 567