Animal Health Update

Your role in the National Livestock Identification Scheme (NLIS) by District Veterinarian Gabrielle Morrice

If you own stock or they are present on your land, you must have a Property Identification Code (PIC).

A PIC is a prerequisite for the transfer of sheep, goats, pigs and cattle onto and off the NLIS database. The requirement to have a PIC also applies to holdings with horses, deer, camelids, bison, buffalos and 100 or more poultry (or 10 or more emus or ostriches!).

Sheep, goats, pigs and cattle cannot be moved or traded without a PIC and when they are moved or traded this has to be entered onto the NLIS database (in the case of sheep, goats and cattle). If you are using an agent, they might do that for you (BUT check to make sure and don’t assume it will happen). NB Pigs being moved must have the movement, including property PICs, recorded on a PigPass which is kept by the sender and recipient of the pigs for seven years.

The NLIS database is important for many reasons:

**Traceability:** My number one in terms of trade maintenance. If stock are found at an abattoir or other property to have a disease or residue that has trade or animal health implications of significance, then knowing their last property origin and sometimes the ones before that right back to birth will be required to mitigate disease or stop the movement of animals into the food chain that contain chemicals or medicines that consumers don’t want to eat;

On top of consumer protection and disease control, it is very important to our trading partners that we have a system that is capable of doing this;

Specific examples of disease control and traceability include:

- Maintenance of the Riverina Regional Biosecurity Areas (RBA), and other RBAs, with the benefit of increased biosecurity in those areas and enhanced trade opportunities;
- Tracing footrot infected sheep that enter the state from Victoria, which helps to maintain our State Footrot Protected area status;
- Bovine Johne's disease (BJD): tracing the origin of newly detected infected animals;
- Lead affected cattle can be traced and monitored until the lead levels are found to have dropped below reportable levels;
- Stock theft investigations by the NSW Police use the NLIS system;
- Straying and impounded stock can be identified and their owner notified.

The onus is always on the purchaser to ensure that the livestock are correctly entered onto the NLIS database as having moved onto their property within 7 days of the movement.

With sheep, all PICs on the tags need to be recorded on their NVD when being sold, unless you use a PINK Post-Breeder tag. Cattle have electronic tags, so each animal is recorded individually on the database. Please note, SAFEMEAT has phased out the use of pre-2013 NVD books, so producers selling stock should be using the 2013 NVD book or an electronic version (e-Dec NVD).

If you are unsure of whether your uploads are occurring correctly: check the database, ask at an LLS office for help, or call the NLIS helpline.
Protect your scanning rate
by University of Sydney Veterinary Intern William Grech

Maximising your lambing percentages is key to increasing profitability and production. Addressing causes of reduced pregnancy rates during mating and early pregnancy will increase your potential lambing percentage.

Reduced pregnancy rates are largely due to failure to ovulate, failure to mate, early embryo loss, and failure of fertilisation. Identifying areas for improvement in these four pathways will increase lambs on the ground.

Ovulation rate is directly related to lamb percentage when healthy and disease free rams and ewes are joined. Adequate ewe nutrition and body condition (3-4) is vital to maintain good ovulation rates. Nutritional flushing prior to mating can increase ovulation rates, especially in lighter ewes. Feed related hormone imbalances, such as phyto-estrogens from lush clover or lucerne, can not only reduce ovulation rates but also increase embryonic losses. Genetics, younger ewes and seasonality can all cause change in ovulations rates.

Protect your lamb marking rate
by District Veterinarian Tim Biffin

Continuing on from Will’s article, further losses can be expected from scanning (i.e. pregnancy) through to lamb marking. More than 80% of these deaths occur within 48 hours of birth. There is a myriad of causes for these losses; however, the majority can be reduced with improved management practices, namely, the management of ewe nutrition.

Primary and secondary birthing trauma (ie dystocia) followed by Starvation-Mismothering-Exposure (SME) complex are the most common causes of reduced lambing percentage in the Riverina. Depending on the area, primary predation (feral dogs, pigs and foxes) may also cause significant losses.

Other causes of lamb loss, much less common, may benefit from veterinary investigation and treatments. These include primary abortion (infections such as campylobacter, toxoplasma, listeria), lamb infections (navel ill), nutrient deficiencies (e.g. copper, selenium, iodine) and bizarre congenital abnormalities (such as spinal bifida and cleft palates).

Inappropriate lamb birth weight is the greatest risk for lamb mortality within the first week of life. Optimum lamb birth weights are 4.5-6.0kg depending on breed and single/twin status. Survival decreases sharply when birth weight drops below 4.0kg or rises above 6.5kg. Ewe nutrition should be managed during pregnancy to optimise lamb birth weights.

As a guide, ewe BCSs should be maintained at 3/5 during early pregnancy, then 2.8-3.0 for single bearers, and 3.0-3.3 for twin bearers. Grazing management should allow twin bearing ewes access to >1500kg DM/Ha in late pregnancy and ewe scanning should not occur sooner that 90 days post joining.
Feeding rates by District Veterinarian Rahul Shankar

Going into winter it is a good time to remind yourself about some basic feeding rates. It’s also important to remember that energy is the most important nutrient and this means that cereal grains and manufactured pellets should be the basis of any ration for either sheep or cattle. The importance of roughage for cattle is greatly over-rated. Some basic figures to keep in mind:

- Weaner sheep – 2.5Kg/week
- Adult sheep – 3.5Kg/week
- Weaner calves – 2.5kg/day
- Dry cows – 4.0Kg/day

Additional allowances:
- Late pregnancy 25% (cattle), 50% (sheep).
- Lactation 60% (cattle), 100% (sheep). Providing about 25% more roughage will also improve milk production.
- Cold stress 20% (cattle), 100% (sheep)
- Cereal grains and good quality pellets can be regarded as having similar energy values and feeding rates. Useful conversions when using a mixture of feeds are 1Kg grain/pellets = 1.5Kg clover/Lucerne hay = 2Kg rough pasture hay/cereal straw =0.8L of molasses.

Blue-Green Algae by District Veterinarian Matt O’Dwyer

A few people have phoned the LLS concerned with changes to the water colour of their ground water tanks (dams) and troughs. One of the dams came back positive for Blue-green algae. Algal blooms occur when nutrients are high in the water, the temperature is right and the light intensity is not too high. The perfect conditions for growth occur during the warmer months when water temperature is higher, light is good and the water level is lower increasing the amount of nutrients. Blue-green algae also prefer very slow moving water in rivers or creeks and growth is rapid when water is ponded. Blue-green algae will kill stock in two ways. The first is the ‘Fast death factor’ syndrome; it takes about 30 minutes for signs to begin and stock are found dead at water’s edge. The second is the ‘Slow death factor’ syndrome characterized by liver destruction followed by jaundice, photosensitisation and death. The algae releases Toxins that can change rapidly and increase as the bloom starts to die off. Some of the toxins can persevere for more than three months before declining in concentration and dams may look clear but are still toxic. Treatment involves moving the stock off the water immediately. In addition there are chemicals available that can be added to the water under direction. If you are concerned about your stock water then please call Local Land Services and we can test the water.

Biosecurity near misses by Regional Veterinarian Eliz Braddon

I recently read the latest Biosecurity Bulletin from DAFF (Dept of Agriculture, Fisheries and Forestry) and was quite surprised to read just how many near misses Australia has had with regard to biosecurity risks. I was, at the same time, very impressed at the way these things were found by the various biosecurity and quarantine officers involved in these stories that I thought I would share a quick summary:

Un-retorted (not in a sealed air tight container, not heat treated and fresh requiring refrigeration) meat products containing pork, beef and chicken, being disguised as vegetables. The particular country these products were imported from did, in fact, have outbreaks of Foot
and Mouth Disease and Avian Influenza at the same time these products were imported.

**FMD** is estimated to cost Australia $52 million over 10 years, the most recent AI outbreak cost $5 million and also impacted on the availability of eggs for a number of months.

Kaffir lime leaves which were later proved to be positive for Asian Citrus Canker were illegally imported into the country and sold via grocery stores. Thankfully, the virus in these leaves was proven not to be viable enough to spread disease to local citrus trees.

Citrus canker is a serious bacterial disease of citrus trees including grapefruit, lemons, limes and oranges. The disease attacks the leaves, twigs and fruit causing the leaves to drop and fruit to fall to the ground before it ripens.

An army of dried frogs, soft cockroaches and various other dead insects which appeared to be cicadas, grasshoppers and wasps were discovered in a mail parcel.

Introducing live or dead animal or insect species from another country can risk our native fauna and flora through a variety of ways – competition, toxicities, disease introduction. Examples of when this has gone wrong in the past – cane toads, small hive beetle, foxes, rabbits…

So I guess the message here is – thank goodness Australia is looking out for these things and also it is everyone’s responsibility to keep an eye on things that are unusual (noisy furniture, weird looking fruit, “foreign delicacies”).

**Emergency Animal Disease (EAD) Quiz by Regional Veterinarian Eliz Braddon**

What’s wrong with this cow?

- Woody tongue (Actinobacillosis)
- Dental problems
- Infectious Bovine Rhinotracheitis
- Bovine Viral Diarrhea / Mucosal Disease
- Foot and Mouth disease

A timber buffet that was purchased in Australia was found to have a Long-Horned Beetle larvae munching away at it from the inside out – much to the surprise of the owners of the buffet. They reported strange “munching” noises coming from the buffet to biosecurity officers who then discovered the bugs.

An outbreak of Asian Long-Horned Beetle has the potential to devastate Australia’s apple and pear plantations and destroy forests and native bush.

A visiting tourist entered the country with live marine blood worms that they were intending to use as bait while fishing in Australia.
Before you answer, what if I now told you that a lot of your cows were looking like this today and they were ok a few days ago; and they are also lame?

If you picked e) Foot and Mouth disease you are correct!

One of the difficulties facing Australia in a Foot and Mouth disease outbreak is how fast will we recognise the disease. This means that everyone from the paddock (producers, agents, abattoir workers) to the top of government (private vets, district vets, veterinary laboratories, State and Federal veterinary officers) have to be aware of their role in that diagnosis. For those of us at the ground level, we need to be able to recognise the signs as unusual (for FMD, that is salivation, lameness, depression, fever and multiple cattle affected) and then seek the appropriate help.

As a producer, what would you do if these were your cows?

Your answer should be to call a vet. This could be your local private vet or your local district vet. These are the people equipped to get a speedy diagnosis and also assist in containing the disease. You could also call the Exotic Disease Hotline 1800 675 888.

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**Riverina Local Land Services**

**District Veterinarians**

Please note new office numbers

**Wagga Wagga**
Tim Biffin and Emily Stearman
6923 0900

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

**Gundagai**
Vets at Young/Wagga to assist in the interim
6940 6900

**Griffith/Hay**
Matt O'Dwyer
6960 1300 (Griffith) 6993 1403 (Hay)

**Narrandera**
Gabrielle Morrice
6958 1800

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www.riverina.lls.nsw.gov.au