

Sheep & Beef Talk

June 2018



Lepto in Humans on the Rise

This article is a summary of an article recently published in the Dairy Cattle Veterinarians' newsletter.

- In the 6 months Jan to June 2017, the number of reported human leptospirosis (lepto) cases increased 3 times to 91 cases vs 33 for the same period in 2016.
- More than 2/3 of those people infected were hospitalised and many will suffer long-term effects.
- Females represent 18% of cases for 2017 (6% in 2016)
- For the 61 cases where occupation was recorded, 36 (59%) worked on farms or had contact with livestock
- The vaccination status of herds for 15 farm worker cases was known: 9 herds not vaccinated, 3 partly vaccinated, 3 fully vaccinated.
- Of the 23 cases with no 'occupational exposure', 14 had contact with animals, and 10 with waterways

Lepto is a workplace hazard in the agricultural sector and is a serious disease caused by a bacteria which has several strains. People get lepto from contact with animal urine and contaminated water. The lepto bacteria gets into the body through the nose, mouth, eyes, mucous membranes and through cuts and scratches. It attacks the liver and

kidneys and can cause signs ranging from mild flu-like symptoms (usually without a cough or runny nose) to sensitivity to light and jaundice to liver and kidney failure and death.

Vaccination alone does not eliminate the risk:

A nationwide study in 2016 looked at the effect of long-term vaccine use on 4000 dairy farms. On these farms, which had all been vaccinating dairy cattle, the vaccine was working against the strains the vaccine covers. However, lepto strains not included in the vaccine were found in cow urine on 1 in 4 farms. Vaccination is very effective at reducing infection and lepto being passed in urine but must be done before stock hit their first winter (2 shots for unvaccinated animals) and with a booster given every year. As we can't cover every strain with vaccination and most animals can carry lepto there is always a risk of getting lepto.

Here are a few things you can do to reduce the risk to yourself, your family and your employee's and contractors.

- Minimise contact with urine from all animals
- Ensure vaccination of stock is up to date
- Vaccinate dogs against lepto (especially in the North Island)
- Control rats and mice, especially around supplementary feed

In this issue

- Lepto in Humans on the Rise

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Lepto in Humans on the Rise *Continued...*

- Don't eat, drink or smoke when working with animals
- Make sure hands are washed thoroughly before eating, drinking or smoking
- Cover cuts and scratches
- Ensure children are not exposed to risk
- Minimise contact with untreated water and effluent, including groundwater

Dry stock farmers at highest risk

A review in the 2012 NZ Medical Journal of human leptospirosis cases in the Waikato 2004 to 2010 found leptospirosis cases in dry stock farmers were typically caused by strains commonly seen in cattle. But of the dairy farmer cases, over 60% were caused by strains usually associated with rodents. This review noted that that infection was associated with males (93%) of working age (97%) who worked with animals, and that most cases were in dry-stock farmers, dairy farmers and meat processing workers. The authors concluded that those working with cattle continue to be at risk of infection and those at the highest risk were dry stock cattle farmers. The reasons for this are likely due to the low number of

beef herds which are vaccinated and that healthy sheep and deer can both be infected by leptospirosis and shed leptospirosis in urine.

Flooding is also a risk

Globally, tropical regions incur the highest burdens of leptospirosis, and outbreaks are often associated with flooding. Pilot work performed by Massey University on cattle farms has shown that viable leptospirosis bacteria are commonly found in environmental water samples, and recent analysis of notifications from the Waikato DHB suggest that spring and autumn peaks of leptospirosis notifications are likely associated with flooding.

In conclusion, infection of both cattle and humans with leptospirosis is changing but animal vaccination remains a cornerstone of human leptospirosis prevention in NZ. If you haven't got a leptospirosis plan in place for your farm have a chat to your vet about how to reduce the risks to yourself, your family, employees and contractors and your stock.

Mycoplasma Bovis Update

With the recent announcement that the Government has decided to pursue eradication of *Mycoplasma bovis*, there are some important points that all farmers and industry stakeholders need to be aware of:

- *Mycoplasma bovis* is an animal welfare issue, and has the potential to have wide reaching implications for NZ, but it is not a human health issue. Consuming meat and milk from infected animals will not pose an infection risk to humans.
- Investigations into how the disease made its way into New Zealand have indicated it was introduced from a single entry point, making the decision to attempt eradication over the next few years plausible. The progress of the eradication will be regularly reassessed and updated.
- Introduction of infected stock is the biggest risk posed to farmers, followed by feeding unpasteurised milk to calves. The risk of infected vehicles, equipment and machinery is another risk which must be managed carefully.

- Bulls coming onto farm temporarily is a big risk factor for farms, so ensure you get a detailed history before they enter your farm.
- Be aware that testing for the disease can be complicated and isn't a simple yes or no. Speak to your vet for further information.
- Farm biosecurity is key and every farm has different risk factors. As a farmer it is important to know yours, talk to your VetEnt vet about the biosecurity factors required to keep your farm safe.

We want to work with, and support our farmers. The implications of the outbreak and the process to eradication has the potential to have a massive financial and mental toll on farmers, their families and their communities. We are here to discuss, help and support you through this tough time. If you have any questions about *Mycoplasma bovis* speak to your veterinarian.