

Farm news



Leptospirosis

Spring is finally in the air, and many of you will be getting ready for turnout and giving your animals a leptospirosis booster.

Leptospira is a significant problem in UK cattle. There are many different bacteria strains, the most important for us being *L. hardjo*, for which cattle are the maintenance host. After infection, animals can carry the bacteria in their kidneys for months, sometimes years, excreting leptospire in their urine and acting as a reservoir of infection for other cattle.

How do animals become infected?

Infection arises from infected urine or products of abortion. Spring and summer, when cattle are out at pasture, are the highest risk periods. Moist spring grass is a favourable environment for the survival of leptospire outside the host. But they are sensitive to drying, acidic conditions, direct sunlight and extremes of temperature.

The following factors increase the risk of herds becoming infected:

- Buying in infected stock.
- Co-grazing with sheep, which can carry and excrete *L. hardjo*.
- Drinking from natural watercourses, which may be contaminated upstream.
- From bulls - *L. hardjo* can colonize and persist in the genital tract of infected bulls and cows.

What are the signs of infection?

While there may be no signs at all, a sudden milk drop often occurs 2-7 days after infection in lactating cattle. The udder becomes soft and flabby and may have blood-tinged milk. Abortions can occur up to 12 weeks after infection and the initial illness, and leptospirosis may also cause stillbirths or weak calves and chronic infertility. Sometimes there can be an abortion storm with large numbers of animals being affected. Occasionally severe acute disease causing fever, haemolytic anaemia, jaundice, meningitis and death occurs, especially in young stock infected with other leptospirosis types (e.g. that commonly carried by rats).

It is also worth remembering that leptospirosis can be transmitted to humans, and causes a severe flu-like illness. This occurs following contact with infected urine or abortion material, so take great care if you suspect a problem on your farm and contact your doctor if you're concerned you've been infected. Since not all doctors have diseases transmitted from animals at the top of their diagnosis list, specifically mention leptospirosis and make sure they know you are a farmer.

Carolyn Baguley

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Diagnosis

Leptospirosis can be readily diagnosed by regular bulk milk screening of dairy herds and blood testing in beef herds. Diagnosis can also be made from the placenta and foetus from abortions.

Urine can be used to identify infected animals.

If you do not yet know the status of your herd, we would strongly recommend finding out, to enable a suitable plan to be put in place to protect your herd.

Control

This requires a combination of strategies to reduce the risk of infection coming onto the farm, strategic antibiotic treatment for infected animals or during quarantine for bought-in animals, and protection of the herd by vaccination.

Fencing off any rivers or streams that are not required as a water source is advisable. In a herd with no evidence of a previous infection, all replacements should be isolated for at least 3-4 weeks and then tested for evidence of infection or exposure, and/or treated with streptomycin antibiotic on two occasions 10-14 days apart before entry into the herd. See your routine vet for advice on this and on the best policy for your herd in terms of monitoring, prevention and treatment.

If leptospirosis is diagnosed, or your herd is at high risk of infection, then vaccination provides good control. After the initial primary course, annual boosters need to be given every spring as this is the peak time for transmission of the disease. Vaccination should prevent urine shedding following exposure and will help protect against milk drop and abortion. During an outbreak, animals can also be treated with antibiotics to help reduce spread through the herd, but again, do speak to your vet first.

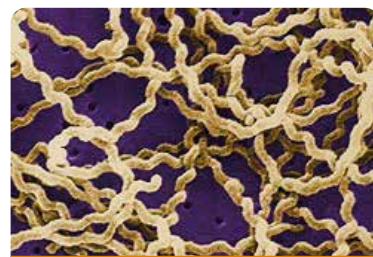


Photo courtesy of the European Centre for Disease Prevention and Control (ECDC).

For more information call our practice on **01332 294929** or email farmandequine@scarsdalevets.com

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Parasite of the Month: Coccidiosis



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What is it and who does it affect?

Coccidiosis is caused by infection with pathogenic species of Eimeria, a single-celled parasite. Clinical signs of disease typically include scour +/- blood, dehydration, rapid weight loss, straining to defecate (sometimes with rectal prolapse as a result) and occasionally death. Older lambs/ calves may present with reduced daily live weight gain.

In cattle: Calves from 1 to 12 months, at any time of the year.

In sheep: Typically affects lambs between 4 and 8 weeks of age (ranging from 3 weeks to 3 months) from January to May. Disease is more common in lambs born in the second half of the lambing season.

What are the risk factors?

Risk factors fit into 2 main categories:

- Contamination - of housing, around feed areas, water troughs/ watercourses.
- 'Stressors' – weaning, mixing groups, poor hygiene, high stocking densities, inadequate nutrition, adverse weather, castration, concurrent disease (especially Nematodirus in lambs) etc.



How do we diagnose and treat it?

Ideally, we would send faecal samples to a lab for a count (number of oocytes per gram) and speciation (since not all species of coccidia are pathogenic).

Where speciation indicates a non-pathogenic species, the cause of scour is not coccidiosis and so will not respond to treatment with a coccidiostat. Clinical signs of Nematodirus in lambs and Salmonella in calves are very similar to coccidiosis.

Successful treatment of disease relies upon it being early. Unfortunately, this often means initiating treatment before receiving a confirmatory diagnosis from the lab. Treatment of coccidiosis should consist of a coccidiocide (ask your vet for the most suitable option), oral rehydration and a non-steroidal anti-inflammatory drug (NSAID).

How can we prevent it?

Consider risk factors (see above). One of the most effective strategies to prevent coccidiosis is to routinely muck-out and disinfect housing between batches and keep bedding as clean and dry as possible.

Where there is a known history of coccidiosis, or a group of animals is considered at significant risk of infection, the use of a coccidiostat preventatively can be justified.

Huskvac Reminder

A reminder to contact the practice to plan your lungworm control strategies for this season and to order your vaccine soon. Remember that for dairy calves, vaccination should be completed at least two weeks before the calves are turned out to grass, and for suckled calves, the vaccine course should finish two weeks before the calves begin to eat significant amounts of grass. Wormers should not be given until two weeks after the final dose of vaccine.



Nottingham Vet School update

John Remnant

As many of you will know Scarsdale Vets is one of the University of Nottingham School of Veterinary Medicine and Science's Associate Practices. Nottingham Vet School was the first vet school in the UK to use a community based approach to clinical teaching. This means that clinical associate practices like Scarsdale Vets (and their clients) are integral to our teaching of the next generation of vets. All the veterinary students at Nottingham spend their lecture-free final year rotating through different types of veterinary practice to gain practical experience in the real world. There have been lots of developments at the vet school over the last few years and we wanted to share a few updates.

Dual intake

There are concerns about a recruitment and retention crisis amongst vets and potential disruption to the veterinary labour market following us leaving the EU. To try and help address these issues Nottingham Vet School has moved to a "dual intake" system, allowing us to teach two classes of vet students each year whilst keeping group sizes small. We now take 150 new students in September of each year and another 150 in April to make use of university facilities that would traditionally be empty over the summer. We started this programme in September 2019 and, despite the pandemic, both cohorts have now finished their first year and the September cohort have started their second year.

Covid-19

Starting a new curriculum with a dual intake of students during a pandemic has been challenging, but the vet school have been trying to lead the way in terms of best practice managing university teaching alongside a global pandemic. The April cohort of the dual intake programme were the first university students in the country to return to face-to-face-teaching. The vet school participated in a pilot project on testing regimes that has informed the University of Nottingham approach for all students and provided advice to other universities. The university has been carrying out its testing programme alongside government tests to manage potential outbreaks amongst students. We are fortunate that levels of infections have remained low on our rural campus compared to some of the city-based universities reported in the news.

Research

Alongside teaching, Nottingham Vet School also conducts a wide range of research on wide ranging topics from cancer research to elephant behaviour. The farm vet team at Nottingham are involved in lots of areas, with a focus on population level medicine with most of our work being focused on dairy herd health and increasingly sheep flock health. We are using the facilities at the recently built Centre for Dairy Science Innovation to investigate the impact of housing and environmental enrichment on dairy cows and we have projects working with technology companies to look at the use of sensors to remotely monitor the health of sheep and cows.



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