

### Leptospirosis

**Spring is well on the way and with it the familiar hustle and bustle of the calving and lambing. There may be some signs of hope for fewer masks as well!**

Looking back through the newsletters, a well-coined phrase crops up again and again. I am not going to buck the trend, so here it is once more: 'Prevention is better than cure'.

I am happy to reiterate this because - as we can see being illustrated in the media and amongst our friends and families – a vaccination to increase protection from a disease is much better than having to seek healthcare to recover from it.

Many of you will be aware that we often take blood samples of young adult cattle within your herds to get an idea of which diseases are circulating, and frequently causing unseen losses. One of the diseases we look for is leptospirosis.

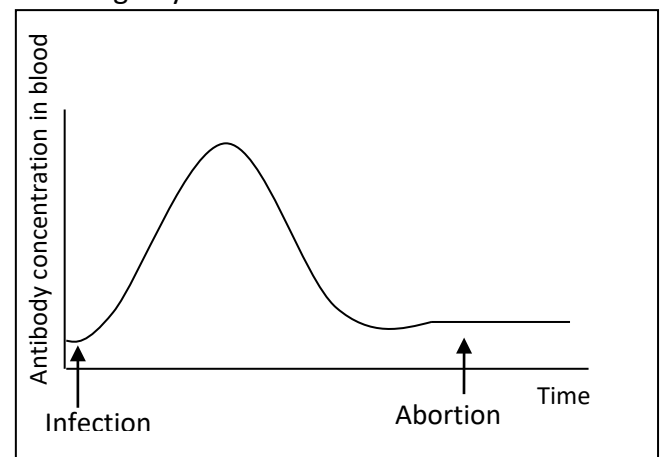
Approximately 60% of dairy herds are infected with leptospirosis. Meanwhile, CHeCS estimates 75% of UK cattle have been exposed, affecting both dairy and suckler herds.

Lepto' is widely recognized as a common cause of reproductive failure and economic loss in cattle. It causes abortion 3-12 weeks after infection, with most abortion happening in the last 3 months of pregnancy. It is also a cause of reduced fertility: a study published through the BCVA found infected cattle had conception rates of 30% in comparison to their uninfected companions' conception rates of 46%.

Besides abortions, which raise a red flag and need prompt investigation, there are other signs of lepto' which are more subtle. If we found the following signs while examining a sick cow it

would ring an alarm bell and make us consider lepto' as the cause of illness: yellowing of the membranes around the eye, gums and vulva; blood-tinged urine; as well as more general signs such as, poor appetite; high temperatures; milk drop with a flaccid udder (flabby bag).

Diagnosing lepto' as the cause of an abortion can be difficult because the gap between infection and the event can over a long period. In the graph below, you can see that in the time between infection and abortion, the dam's antibody concentration has peaked and returned to 'normal' before the abortion has even taken place. A second blood sample 3-4 weeks post abortion will have a similar 'normal' antibody concentration, and this is difficult to interpret meaningfully.



However, if the abortion takes place closer to time of infection, the second blood sample 3-4 weeks post abortion will have an increased concentration of antibodies. This is a good indicator that lepto' was the cause of abortion. In an abortion investigation, two blood samples are needed so we can make a comparison between the two and establish that there has been an increase.

Cattle contract leptospirosis following contact with infected urine, abortive material, or reproductive fluid. It may be picked up from sheep if co-grazed, or from rats or contaminated water sources.

If you are using a bull, it is important to include him in your checks, as the disease can pass from him to the cows when they are served.

Once diagnosed in a sick animal, leptospirosis may be treated with antibiotics. However, rather than waiting for a clinical case of leptospirosis or an abortion to investigate, we can test bulk milk or blood samples.

If submission of blood or bulk milk to the lab results in a positive diagnosis we will recommend vaccinating cattle yearly.

We currently have access to funding, so we can offer free testing for leptospirosis on farms not currently vaccinating. Testing can be done on bulk milk samples or individual blood samples.

It is also a zoonotic disease, meaning we can contract leptospirosis from infected cattle. This is one of the reasons to wear gloves when handling aborted material – cuts in your hands can lead to infection. Hygiene in the parlour is important too, because being in the pit leaves you exposed to splashes of urine!

Looking forward to seeing you all soon,

Joe



## Sustainable Farming Meeting

We are excited to be kicking off our Sustainable Farming meetings with an online Zoom meeting on the Farm Carbon Calculator. By using this tool, we will be able to measure the results of any changes we subsequently make on farm. This will hopefully show us what has and has not worked and where we can make further improvements. We are lucky that Becky Wilson from the Farm Carbon Toolkit is coming along to the meeting to run us through how the calculator works and why it is important. She helped to develop the calculator and so is a great source of knowledge on all things Farm Carbon. As post-Brexit changes to subsidy will almost certainly incentivise carbon footprint reduction, this is a subject which applies to all farmers, whether your primary interest in sustainability is driven by climate, biodiversity, efficiency, breeding or anything else, so is a great place to get started.

The meeting will be via Zoom on **Tuesday 9<sup>th</sup> March from 5:30pm.**

If you would like to come along, please contact Grace or Ed via the office and we will get the link sent to you.



### Every Mile Matters

Between 13<sup>th</sup>- 21<sup>st</sup> February, 62 members of the GVG team braved the wind and rain to cover 1864 miles in memory of Tim Hirst. This was almost double our original target of 1000 miles. The mileage was covered by running, walking, cycling, cross trainer, scooter, horse riding and even a spot of wild swimming!

Thank you so much to those of you who have sponsored us already-we have raised an amazing £4100 for Action Pulmonary Fibrosis.

If anyone else would like to donate the link is [www.justgiving.com/everymilematters](http://www.justgiving.com/everymilematters).