

Leptospirosis Factsheet

What is Leptospirosis?

- Leptospirosis (Lepto) is an acute bacterial infection, the most common strain in the UK is L. hardjo which is found in cattle and sheep but can transmit to humans.
- L. hardjo tends to localise in the kidneys and reproductive tract of cattle. Because of this, it is thought to have a negative effect on the fertility.
- The infection can be shed in urine; this is the primary route of infection to humans. Farmers are obliged to do their utmost to protect individuals from infection under COSHH regulations.
- Lepto not only affects the fertility of cows but can also cause a dramatic drop in milk yield with milk appearing thick and yellow, mastitis and raised temperature.

Diagnosis

- Test bulk milk sample in order to gauge the level of antibodies in a herd and this can be done regularly as part of a herd health scheme.
- Individual animals can be tested for evidence of infection however some cows may only test positive for a short period following infection.
- Other forms of Lepto can also exist within cattle, thereby producing a positive result. However, these may not carry disease.

Monitor

- Test bulk tank sample, or
- Individual cow samples, collected at routine CIS herd recording.

Interpretation

- The test is a rapid screening method that detects the presence of antibodies in milk specific to *Leptospira interrogans* serovar hardjo. The intensity of the resulting solution during the test is measured and is known as the optical density (OD) and is a measure of the antibody concentration specific to *leptospira hardjo* in the milk sample.
- The results are expressed as 'percent positivity' (PP), which is the ratio between the OD of the test sample and the OD of the positive control.

Leptospirosis Bulk Milk:

- A result equal to or less than 0.03 is considered to be Naive and/or unvaccinated.
- A result between 0.04 and 0.10 is considered as a low positive with a few seropositive cows.
- A result between 0.10 and 0.50 is considered as a medium positive with a mix of infected and susceptible animals.
- A result greater than 0.50 is considered as a high positive which is heavily infected/vaccinated.