



## **Leptospirosis**

### **What is Leptospirosis?**

Leptospirosis (commonly referred to as 'Lepto') is an acute bacterial infection. There have been several different of *Leptospira* isolated since the first in 1914 but the most common in the UK are *L. hardjo* which is found in cattle and sheep but can transmit to humans and *L. icterohaemorrhagiae* which is found in rats and can cause Weil's disease in 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 of cows who are empty at infection. Existing pregnancies are not considered to be at risk however this can result in weak calves born with a poor survival rate.

Due to the presence of the organism in the kidneys, the infection can be shed in urine although there are no set patterns of shedding and can vary from cow to cow, some continually for a short period of time and some intermittently over a lifetime. This is the primary route of infection to humans and as a zoonosis disease, 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 (levels recover after 10 to 14 days) with milk appearing thick and yellow, mastitis and raised temperature.

### **Diagnosis**

It is possible to test a 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.

### **Treatment**

A test and cull scheme may be used to achieve Disease Free Status Accreditation (as was used in the Netherlands), however there can be uncertainties around a positive blood test result due to sporadic persistence of the bacteria and other, non-threatening forms of Lepto. If however, herd testing indicates an absence of the disease, Disease Free Status Accreditation may be sought and these animals may be bought and sold safely.

An effective vaccine is licensed for use in the UK. Immunisation of cattle reduces the amount of infection shed in a cow's urine and can therefore help to protect people from the disease although other hygiene precautions are also recommended.