



Consulting cattle vet Debby Brown, from Lancaster-based Advance Nutrition, takes a timely look at health and welfare issues that are affecting dairy herds across the UK. Here she offers some food for thought on Leptospirosis – a serious threat to cattle fertility and human health.

Turnout is the time to vaccinate against devastating disease

Minimise Lepto risk

Turnout is the best time to vaccinate against Leptospirosis, so now is a good time to consider if it's a possible threat to your herd, as well as you and your staff.

Human infection can occur through either direct contact with cows' urine, aborted foetus or placental membranes, or through exposure to contaminated water.

In the UK the majority of hardjo infections in cattle are subclinical. Infection in lactating cows may cause 'milk drop syndrome'. It can also cause reproductive problems, including abortion and poor fertility that is characterised by low conception to first service rates, and this can lead to associated high culling rate.

Abortion tends to occur in cows and heifers that are between four and eight months pregnant. Lowered fertility is a more insidious problem and is often the result of long-term infection; either new infection or chronic inactive infection changed to active acute infection.

Once natural immunity has been established throughout a herd, fertility levels return to those accepted as normal. Recurring sub-fertility problems may then occur with the introduction of susceptible cattle into the herd.

Running an open herd, cattle movement and buying in infected carrier bulls, heifers or cows are all major risk factors for introducing infection. Close interaction between two maintenance host species, such as cattle and sheep, can also pose a risk.



The encyclopaedia **Leptospirosis**

Cause

The cause of Leptospirosis is a small, aerobic spirochete bacteria – most typically *L interrogans* serovar hardjo and *L borgpetersenii* serovar hardjo.

Symptoms

Milk drop, abortions and poor fertility are the symptoms.

Diagnosis

Foetal tissues or urine of infected cows can be tested for hardjo. Blood and milk can also be tested for antibodies. Antibody detection is useful for identifying the Lepto status of a herd.

Treatment

The drug of choice is di-hydrostreptomycin, but amoxycillin is equally effective. Treatment helps to reduce the excretion of leptospire, but doesn't completely stop it.

It's not effective during outbreaks of abortion or milk drop, but can help to reduce abortions during a chronic phase.

Prevention/control

Vaccination is best administered around turnout in spring, but producers should keep in mind that it does not eradicate infection from endemic herds or stop excretion by carrier animals or prevent abortion when infection is already in the placenta.

Producers also need to stick with a vaccination programme once they start one because if they stop it can render the herd totally susceptible.

