Bovine Tuberculosis (TB)

What is Bovine Tuberculosis (TB)?

Bovine tuberculosis is a chronic, debilitating disease caused by a bacterium, Mycobacterium bovis which can take years to fully develop. The bacterium is one of a family that can cause other diseases, for instance Johne's disease, avian TB and leprosy. Bovine TB is now very rarely found in humans with the slight rise in cases recently seen instead attributable to Mycobacterium tuberculosis.

TB forms lesions, most commonly in the throat and lungs of cattle but can migrate through the body to other organs such as the kidneys and udder. Due to the prevalence of lesions in the respiratory pathway, the most common form of disease transmission is airborne. Inhalation, with cows at pasture, as well as intensively housed at risk, is the most common form of transmission.

Ingestion of infected material can also cause an animal to contract TB for example a calf drinking infected milk.

Control of the disease is difficult with reservoirs of infection existing in wildlife that can assist in transmitting the disease through sputum and urine due to the presence of the infection in the kidneys.

Diagnosis

As TB is a closely monitored through regular herd testing schemes, full blown cases are rarely if ever seen now. Long-term infection however, would result in lesions in the lungs and chest cavity and swollen and necrotic lymph nodes in the head and neck. Disease progression is slow and emaciation, lethargy, coughing, nasal discharge and breathing difficulties have been observed.

Currently, a skin test is used to detect the animal's defence against the disease. It is an early indicator of infection as it can tell if the animal has been in contact with bovine TB. Results given are negative where the animal has passed the skin test, reactor where it has failed and inconclusive.

Inconclusive test results mean the animal must be re-tested at least 42 days after the first test. If this test is not negative, the animal may be classed as a reactor.

The skin test detects around 75% of infected cattle at any single herd test. The test used will also react to other mycobacteria but it is impossible to tell which strain is present until post mortem. Around half of all herd breakdowns are due to Mycobacterium bovis

Treatment

No treatment is accepted, tested reactors are culled and inconclusive cattle isolated until a firm decision is made. This scheme is aimed at assisting in the reduction of disease transmission. Farms are immediately placed under movement restrictions until two clear herd tests have been achieved.

There is no vaccine available at present and although research is ongoing, an effective, licensed vaccine is not expected for many years.

At present, approximately 5% of UK cattle are under restriction.