



## **Mycoplasma Bovis**

Mycoplasmas are a class of bacteria which have been a subject of increasing discussion in recent years. There are over 100 Mycoplasma species although very few cause disease in cattle. The most common type affecting UK farmers is *Mycoplasma bovis* (not to be confused with the TB bug *Mycobacterium bovis*). It is only sensitive to a few antibiotics and owing to its defence mechanisms treatment can be challenging. However it does not cause disease in humans and is not a notifiable disease.

### **Clinical signs**

*Mycoplasma bovis* is most commonly involved in respiratory disease in calves, it can be the sole cause of an outbreak but usually occurs alongside other common respiratory pathogens. As only certain antibiotics are licensed for use against Mycoplasmas, it may be suspected if there is a poor response to standard pneumonia treatment.

It can also affect the lungs of adult cattle, in which case the response to treatment is often poor and frequently fatal although thankfully a rare form of disease.

Middle ear infections in calves are often seen, causing a noticeable head tilt, head shaking, ear rubbing/drooping and sometimes discharge from the ear canal.

It can also act as a contagious cause of subclinical mastitis (high SCC) but rarely results in clinical mastitis cases, however diagnosis is quite specialist and can be difficult so may be underdiagnosed.

Also rare, infection can get into the joints causing a severe arthritis leading to swollen joints and acute lameness unless early treatment is implemented.

### **Spread**

*Mycoplasma bovis* is mainly transmitted by close direct contact with infected animals or unhygienic milking and is usually introduced to a herd by a bought in carrier animal, which may not show any signs of infection.

Once infected, the bacteria can spread around the body and be shed through the mucosal surfaces (eyes, nose, rectum, and vagina) and also gets into the milk which introduces the disease to calves.

If a herd has other ongoing problems with infectious disease or poor nutrition then the spread will be quicker and harder hitting.

### **Diagnosis**

Although culture can be prolonged and sometimes difficult, it is an option from a swab or milk. There are specific lab PCR tests for *Mycoplasma bovis*. Bulk milk testing may be done provided the risk of contamination is very low. Blood testing is also available to detect disease in a herd.

## **Control**

No commercial vaccines are available for *Mycoplasma bovis* so prevention is based solely on biosecurity measures.

If possible, keep a completely closed herd to reduce the risk of buying the disease in. If this cannot be avoided then source animals from low SCC herds, asking the vendor for disease history. Incoming animals must be isolated as normal, and can be screened by blood testing.

Milk from high cell count or known infected cows must not be fed to calves.

### ***Mycoplasma wenyonii***

This is a less common type of *Mycoplasma* known to affect UK cattle.

Most often seen in late summer and autumn it can lead to swelling around the udder and hindlimbs filling up with fluid (oedema).

Affected animals will have a high temperature, milk drop, dullness and poor feed intakes. It is not yet fully understood, but thought to affect the red blood cells and potentially spread by flies.

Treatment usually involves nursing care and anti-inflammatories to reduce the temperature