

So what is Mycoplasma Bovis?

Other routes of infection include ingestion via contaminated milk (i.e feeding waste milk to calves) or via contaminated milking/feeding equipment.

Common clinical signs in calves include;

- Droopy ears
- Slight head tilt (affects the middle ear)
- Nasal discharge
- Cough

In adults;

- Nasal discharge
- Milk depression
- High mortality
- Chronic mastitis (contagious and that may have a purulent or serous discharge)
- Or swollen legs and joints

It can also cause pneumonia and can be seen as a key player in the organisms associated with bovine respiratory disease.

Diagnosis of M. Bovis can be difficult due to the low sensitivity and in some cases specificity of the available tests, which can often be complicated by the presence of subclinical infection and intermittent shedding. PCR is the detection method of choice.

It proves difficult to treat, its lack of cell wall results in natural resistance to penicillins and cephalosporins and its folic acid independent metabolism results in resistance to TMPS. Whilst other groups of antibiotics do work, the nature of the pathogen, including the ability to create biofilms can reduce a clinical response to treatment. The key to treatment success is early intervention.

Reducing incidence of Mycoplasma bovis on farm involves **strict** biosecurity.

Where there is known disease in adult animals, the feeding of waste milk should be avoided at all costs. Milking equipment and milk feeding equipment can aid in the transmission of organisms and therefore disinfection is essential. If feeding whole milk, then this must be pasteurised to reduce the bacterial load of M. bovis.



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Ark Vet Centre

Your farm's health is in our hands.

Newsletter April 2021

At Ark Vet Centre lambing started on Christmas day with a caesarean section, but, for most, April signifies the start of Spring, and the start of lambing and calving. So far, we have experienced every season possible in the last week- but I remain hopeful that turnout is around the corner! If you had parasite challenges last year, now is a good time to chat to your vet to discuss preventing issues with a proactive approach to parasite control this year.

It's also coming up to that time of year that we need to start thinking about a pre turnout MOT for your bulls. Ensuring these guys are in peak condition gives the best chance for a successful calving season next year. On average a bull would be expected to get 90% of his girlfriends pregnant in a 9-week period- tough work for any male!

We can offer foot trimming, a full clinical examination alongside a semen evaluation in one visit with our side tipping crush. The clinical examination and semen evaluation includes:

- Assessment of heart, eyes, teeth and lungs
- Full routine foot trim
- Assessment of testicles and penis (the money makers!)
- Palpation of the prostate
- Microscopic evaluation of the quality of sperm as an indicator of fertility

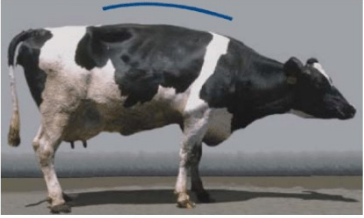


Lameness can affect a bull's fertility for up to 6 weeks- don't let time run out



when it comes to getting your bull ready for turnout. Set up fee for the crush is £75 + VAT plus visit fee. To book a visit please call the practice.

Embracing a proactive management of lameness



Let's talk about lameness in cattle. I can already see the eye rolls and the grimaces but lameness in dairy cows is quickly becoming an increasingly hot topic amongst processors and can have a real effect on how lameness is managed on farm. We could talk all day about the facts, challenges and solutions, but it's

crucial we look at it from an on-farm perspective! Fishers' at Smalmstown have kindly let us do a profile on the changes that they have made to combat lameness on farm.

Working with our Vet tech and their foot trimmer they focused on stocking density, cow comfort and mobility scoring. Improving stocking density and cow comfort increases lying time, which has the power to significantly reduce the incidence of lameness. That feeling you get when you sit down for your breakfast after a morning of walking on concrete in your wellies— the cows will feel that too! Making sure they have adequate cubicle space and the cows actually fit in the cubicles is extremely important. Guidance on cubicle dimensions is available on AHDB's website.

Changes since 2019

- New shed for heifers reducing stocking density in main milking shed
- Routine trim at 100 days and dry off for every cow
- Monthly mobility scoring
- Proactive trimming between routine visits

At the start of each month our Vet tech produces a list of score 2 and 3 cows. This supplements lists of lame cows that are made at any handling opportunity (e.g vaccination) and passed to the foot trimmer. Their foot trimmer also routinely checks the feet of all cows at 100 days in milk as well as at drying off, trimming if/when required. The herd manager and Tom will treat any lame cows in between his visits with a strict 'there and then' attitude— nothing will get left to the next milking. This means that every cow is seen twice a year as a minimum, and the team are picking up on average one cow a day. Regular footbathing also features to control Digital Dermatitis and a digi blitz protocol is used to control any flare ups (please ask your vet for further information). This proactive approach in conjunction with regular mobility scoring means that lameness in the herd has dropped.

Smalmstown Facts

1000 Holsteins producing
9500L 3.75 protein 4.7 BF
AYR calving
Foot trimmer every 2 weeks
Footbath cows every milking
and dry cows three times a
week

Their latest mobility score revealed that 88% of cows are sound (score 0 or 1)- a fantastic result from a consistent approach! Tom emphasises that the relationship between himself and the foot trimmer has been poignant to the success of the changes. Tom recognises the money that sound cows will be saving him and has promised once they reach 90% soundness to pay for a night out for his foot trimmer! The biggest impact he has seen from this approach is staff morale. Cow's are healthier so that gives everyone such a boost since no one enjoys milking or working with the cows in the hospital pen.

So what is Mycoplasma Bovis?

The diagnosis of Mycoplasma bovis is becoming more and more common on dairy farms, it can cause disease in both calves and adult cattle. It is a notoriously difficult bug to treat, and even then vaccination has historically proved difficult.

We have previously relied on autogenous vaccine (those produced in a lab using M. bovis cultured from infected animals), however there is now a vaccine available in North America that is available to import . A recent report of a vet led study has looked at growth rates, mortality and antimicrobial usage in 1582 calves born into eight herds in Scotland using the vaccine.



Weaned calf mortality fell from 5.8% pre-vaccination to 0.5% post vaccination, whereas in the control farms this remained between 7.3- 7.8%. Antibiotic usage dropped from an average 116.9 PCU/100kg live weight pre-vaccination to 41.45 PCU/100kg post-vaccination, whereas in the control farms, this was seen as an increase in antibiotic usage.

So what is Mycoplasma Bovis?

They are small bacteria distinguished by their lack of cell wall. M. Bovis produces a biofilm, changing surface proteins and can persist on mucosal surfaces, enabling them to evade the host immune response, therefore causing disease.

The organism may be carried asymptotically and the introduction of subclinical animals into the herd is the primary means that a naïve herd becomes infected. The major route of M. bovis transmission is nose to nose contact and aerosol spread.