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Calf Pneumonia

With the unseasonably mild weather we've had recently there has been a big spike in cases of calf pneumonia. Although this disease can occur at any time of the year there is a significant spike in the autumn and winter. Calf pneumonia is a costly disease, costing an average of £82 per affected animal. This is made up of direct costs (drugs, vet fees, death) and indirect costs (decreased live weight gain, delay to first calving etc).

Cattle have a lung capacity of just 4 litres/100kg (compared to a human capacity of 10 litres/100kg) so there isn't much room for damage in the first place. Pneumonia cripples, and if the calf survives a severe bout of disease it remains open to re-infection and will have permanently stunted growth.

So, what can be done to reduce the incidence and severity of this disease? Firstly we need to realise that calf pneumonia is a multi-factorial disease. This can be demonstrated by the "Disease Triangle". For disease to occur it requires not only the infectious pathogens to be present, but also a susceptible host and a conductive environment. This month we will discuss two of the three elements.



Susceptible Host

Calves are born without any immunity and are completely dependent on colostrum. They must receive sufficient, **GOOD QUALITY** colostrum within 24 hours, before gut closure occurs. As a minimum, calves should receive 6 litres within 6 hours of birth. The quality of the colostrum can be assessed by using a colostrometer, and calves can be blood sampled to ensure successful absorption of colostrum. Unvaccinated animals, and those with concurrent disease such as diarrhoea, will reduce the calf's immune system making them more susceptible to pneumonia. Stress, such as disbudding, castration, weaning and transportation will also reduce their immunity.

Pathogens

The "bugs" involved in calf pneumonia can be grouped in to viruses (RSV, PI3, IBR) and several bacteria. As a general rule of thumb viruses are required to cause initial damage, before bacteria secondarily make the disease worse. In calves the two most important viruses are generally RSV and PI3. Following infection, the upper airways take 3-4 days to repair, while the lungs take 7-10 days. There is loss of function during this repair phase which leaves the calf open for reinfection.

Origin Group

As some of you might be aware we recently joined the Origin Vet Group. The TB tendering process showed us the importance of aligning ourselves with other similar minded companies, and not to be isolated in an increasingly national industry.

We hope to benefit from the group in terms of TB tendering, purchasing, vet sourcing, increased service options etc etc, allowing us to be robust for the future, and to protect our services to you.

However, ultimately we would like to reinforce to all our clients that is strictly business as usual.

Leptospirosis

Letospirosis is a common disease affecting both dairy and beef herds. A leptospirosis outbreak within your herd will carry significant economic implications; as well as being a common cause of abortion infection, it can also negatively impact fertility and milk yields.

Leptospirosis is caused by the bacteria *Leptospira hardjo*. These bacteria can



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survive well for up to 6 months in the environment so long as the temperature remains over 10°C and conditions aren't too dry. As a consequence in the UK spread of infection will be at its highest from late winter to spring. Once infected, the bacteria will settle within the kidneys and reproductive tract of cattle, resulting in animals that can go on to spread the disease for months, if not years. The main route of transmission is though contact with infected urine or aborted material but it can also be transmitted venereally via an infected bull. When a cow becomes infected clinical signs are often non-specific, such as a transient fever, and so can often go unnoticed. Generally the severity of symptoms will depend on whether or not the herd is naïve to the disease.

If leptospirosis is suspected we can submit a blood sample for ELISA to look for bacterial antibodies. In dairy cattle we often run a bulk milk ELISA to monitor disease status of the milking cows, but any dry cows, young stock or bulls in question will still have to be blood sampled.

Control of leptospirosis relies on a combination of management decisions to reduce risk of infection. Maintaining a closed herd will reduce the risk of introducing new infection into the herd, but replacements can be isolated and tested where necessary. Vaccinating your herd against leptospirosis is highly recommended; the primary course will require two injections four weeks apart, followed by singular annual boosters. Vaccination will protect against milk drop and abortion, as well as limiting the bacterial shedding following exposure thus reducing the spread of disease.

For further information please speak to any of the FVSW vets.



FarmVets SouthWest wish all our clients a happy, healthy and prosperous 2016

