Calf Hygiene

Lawrence Gavey, Johne's disease Programme Manager

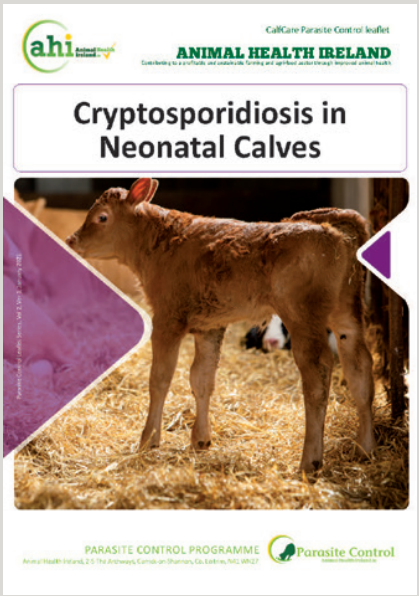
Calves are readily susceptible to a range of infectious diseases caused by bacteria or viruses. Many of these infections, such as those that cause pneumonia and scours, have rapid onset of clinical signs, easily recognised as sickness, and may be treatable. In contrast, Johne's disease has a very slow onset (years) during which it is very difficult to identify which animals are infected, and there is no treatment.

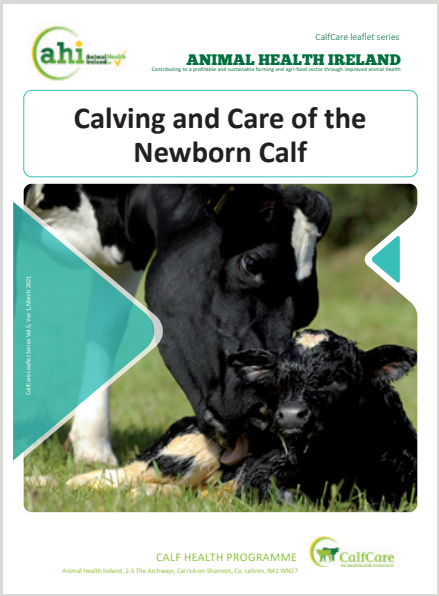
Animal Health Ireland publishes a range of CalfCare leaflets with advice on optimising calf health and welfare, managing summer scour syndrome, Cryptosporidiosis in neonatal calves, calf shed design, pneumonia, and early nutrition and weaning the dairy calf. These leaflets can be found in the Resource Section of the CalfCare page on the AHI website. A common thread in these is the importance of hygiene in preventing or reducing incidents of infectious disease.

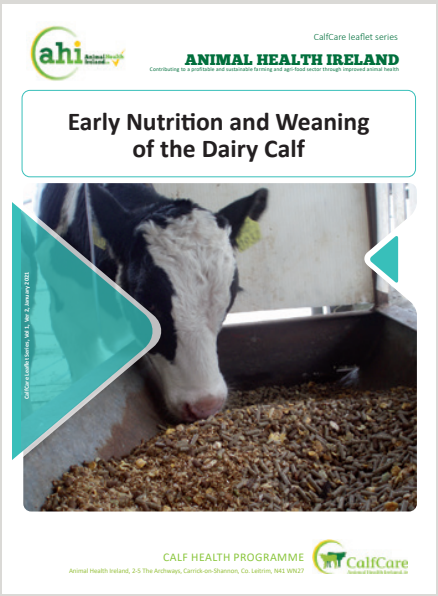
This is very logical, as dirt, mud, dung and wet bedding are suitable environments for pathogens to survive outside their animal hosts and can act as vehicles for carrying infection between animals.

Two recent studies have highlighted the association between calf hygiene and Johne's disease.

A project in the UK has followed the spread and progression of Johne's disease in cohort of 600 calves in 6 herds over ten years. It found that calves born from infected cows are twice as likely to be infected as those born to cows that were not infected. In addition, calves that are born from uninfected cows and fed low-risk colostrum and milk or milk replacer are four times more likely to be infected if they spend a long time in dirty







yards than those that have clean yards or spend only a very short time in a yard before separation. This is very good evidence that calves can readily pick up Johne's disease infection from an unsanitary environment.

UCD is studying risk factors associated with calf mortality in dairy herds that are registered in the Irish Johne's Control Programme (IJCP). Early results show a strong association between calving pen hygiene and lower calf mortality, and a recognisable but lower association between individual calving pens rather than group calving pens and lower calf mortality.

For control of Johne's disease, optimal hygiene at calving means using individual pens, not using calving pens to house sick animals, cleaning the pens between calvings, providing clean bedding, washing mud and dung from cows before bringing them in, and removing and replacing wet and soiled bedding as quickly as possible.

Calf hygiene means separation of the calf from the dam as early as possible; collection, storage and feeding of colostrum and milk from cleaned teats of low-risk cows; using utensils that have been thoroughly washed; providing and maintaining clean bedding; isolation of sick calves; housing calves in individual pens and especially separation of calves from high-risk cows from other calves, and wearing clean clothes and washing all dirt and dung from boots before entering the calf pens.

Testing cannot show that a herd is completely free of Johne's disease, but it can confirm the presence of infection in the herd or provide evidence for a high confidence of freedom following negative herd test results. Irrespective of testing outcomes, or if the herd is of unknown infection status, implementing these calf hygiene provisions will reduce the risk of spread of Johne's disease within the herd, and also reduce the likelihood and impacts of other calf diseases.