

# Considerations in preparing for calving

Lawrence Gavey, Johne's disease Programme Manager

In this period leading up to calving, there are two strategies that you can take to improve Johne's control for your herd by reducing the potential for exposure of new-born calves to the MAP bacteria that causes Johne's disease. These strategies are to provide clean calving pens and to feed low-risk colostrum (beestings) and milk.

Animals are most susceptible to infection with Johne's disease as calves, and especially when newly born. Most infection occurs when the calf swallows faecal matter on the teats or in the milk or colostrum.

The first strategy is to provide pens for calving that are not contaminated by dung from other animals, especially adult animals that could be high-risk for Johne's infection.

If you are testing your herd for Johne's disease, you will be able to identify high-risk cows – those that are test-positive, offspring from infected cows, etc. The Johne's programme advises the removal of these animals from the farm before calving; however, if retained, separate these animals from others during the pre-calving period and at calving so that calves are born into an environment that is as low-risk as possible. This is most important for calves that are to be retained or sold for breeding rather than for feeding for slaughter.

When housing these high-risk animals, prepare sufficient pens that are physically separated and that do not drain into other pens.



Do not use calving pens to hold sick or lame animals. As well as contaminating the pen with adult's manure, sick and lame animals are higher-than-normal risk of being infected with Johne's disease. Prepare a separate pen with a crush or other handling facility that will not be used for calving.

Provide pens for calving that are clean and preferably holding only a single calving cow. Between calvings, where possible remove dung and soiled bedding and replace with clean bedding. Covering soiled bedding with clean bedding is not as hygienic as removing all the bedding.

The second strategy is to feed colostrum, milk or milk replacer that is of minimal risk of carrying the MAP bacteria. Feed colostrum or milk to calves from cows that are low-risk and ensure hygienic collection and feeding by strictly keeping teats, gloved hands and utensils clean and free of dung.

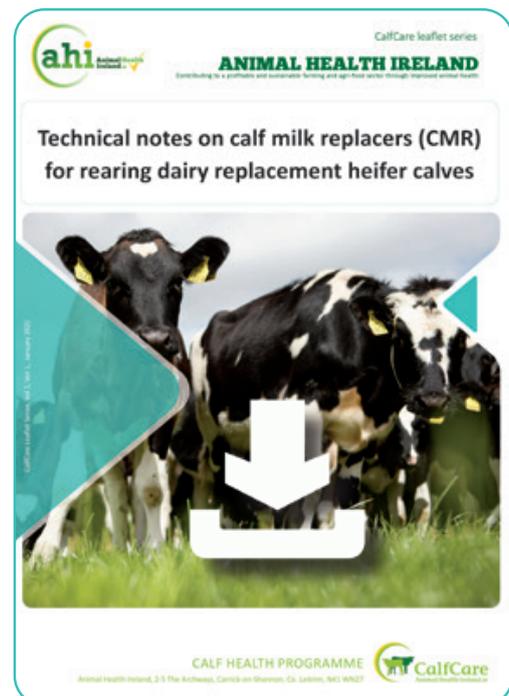
Pasteurisation of colostrum and milk can also have a role in reducing the spread of Johne's disease, but only as part of the whole-farm management approach. Pasteurisation cannot consistently eliminate all MAP in colostrum or milk. Some calves are infected in the uterus before birth, and exposure to dung remains the greatest risk of infection to calves.

Pasteurisation will significantly reduce the level of MAP, and of other harmful bacteria like Salmonella and Mycoplasma, in contaminated colostrum and milk. It also has beneficial health effects, especially where herd hygiene is not very good.

Suitable pasteurisation types are High Temperature Short Time (HTST) continuous process which heats milk to 72°C for 15-25 seconds; and Low Temperature Long Time (LTLT) batch pasteurisation where milk is heated to 63°C for 30 minutes or 60°C for 60 minutes. Temperatures above 62°C are unsuitable for colostrum.

Pasteurisers should be regarded as only one tool in the armoury to control JD rather than a silver bullet; calf hygiene remains a crucial component of managing dairy calves, providing benefits beyond just control of Johne's disease.

Milk replacer should also be considered in the management of John's disease. For more information on using milk replacer, see AHl's Technical notes on calf milk replacers (CMR) for rearing dairy replacement heifer calves [click here](#).



Animal Health Ireland provides more information on pasteurisation to control Johne's disease in a Factsheet available on the AHl website [click here](#).