

JOHNE'S DISEASE

When to use Calf Milk Replacer to assist with Johne's disease control

FACTSHEET

AHI Johne's disease Technical Working Group recommendations for the use of Calf Milk Replacer

Careful attention to colostrum and milk management are important herd health practices to prevent the spread of Johne's disease within a herd and are a safeguard for those herdowners who seek to protect their herd against the accidental introduction of Johne's disease.

Infected cows, food, water and contamination of the calf environment with adult animal faeces are each important sources of risk in the spread of infection to calves. As a first step in Johne's disease prevention and control, herdowners should focus on ensuring that a high standard of hygiene is maintained in calving and calf rearing environments.

Where whole milk is being fed, herdowners should ensure that high-risk colostrum and milk is not fed to calves, particularly to dairy replacement heifer calves. High-risk colostrum and milk will include milk from test-positive cows, milk from the daughters or dams of test-positive calves, and waste milk (i.e. milk discarded due to treatment for other conditions).

Ideally calves should be fed individually, from a low-risk source of colostrum and milk such as test-negative animals. The pooling of milk should be avoided, especially in test-positive herds. An alternative to the use of pooled, whole milk in test-positive herds is the use of Calf Milk Replacer (CMR). In herds where Johne's disease is not considered to be present, CMR may be used for other management reasons.

Recent research on CMR has generated positive test results for MAP (the causal agent for Johne's disease) in a minority of Calf Milk Replacer (CMR) products in the USA. This work indicates that it is possible that CMR may pose an infectious risk to calves for Johne's disease. As no studies have yet been carried out on MAP in CMR products used in Ireland, it is impossible to quantify what risk, if any, is posed by MAP in CMR products that are currently used in Ireland. As a consequence, the AHI Technical Working Group has developed a number of recommendations for herdowners based on common herd scenarios.

For all farmers considering the use of Calf Milk Replacer as part of a Johne's disease Control Plan.

- **The risk of MAP being present in whole milk should be considered before it is fed to calves.**

Factors to consider in assessing this include the clinical and testing history of the herd and the likelihood of infection being introduced into the herd through animal movements and other biosecurity risks.

- **Where whole milk is being fed, herdowners should ensure that high-risk colostrum and milk is not fed to calves, particularly to dairy replacement heifer calves.**

High-risk colostrum and milk will include milk from test-positive cows, milk from the daughters or dams of test-positive calves, and waste milk (i.e. milk discarded due to treatment for other conditions).

- **The harvesting and feeding of colostrum and milk should be carried out as hygienically as possible using clean and disinfected equipment and feeders.**
- **Herdowners should consider the wider potential advantages and disadvantages of using CMR which are outlined in the AHI leaflet 'Technical notes on calf milk replacers (CMR), for rearing dairy replacement heifer calves.'**

In herds where there is a significant risk of MAP being present.

- **CMR should be considered where there is a significant risk of infection being present in the herd. Feeding pooled whole milk should be avoided in such herds as it increases the likelihood of the pool including contaminated milk and of several calves being exposed to this infectious milk at the same time.**

In such a scenario, it is probable that feeding CMR will present a reduced risk to calves than feeding pooled, whole milk. It is likely that there will be infected animals in such a herd that have not yet been detected and these will pose an unidentified risk to calves. Where the feeding of pooled milk is routinely used, the risk to calves from CMR is likely to be less than that posed by pooled, whole milk.

In herds where there is a very low risk of MAP being present.

- **Herdowners should take account of the wider benefits of using CMR in assessing whether to use CMR or not in herds thought to be at low risk of infection. Low risk herds are those that have had no recent inward-movement of animals, and have repeatedly tested negative over several years, with no confirmed test-positive animals.**

In such a scenario, feeding whole milk is likely to pose a very low-risk of MAP transmission to calves. While the risk of MAP contamination of CMR in Ireland is not known, it is possible that CMR might pose an increased risk, compared to whole milk and in particular, pasteurised whole milk.

- **Recommendations for farmers considering the use of Calf Milk Replacer as part of a management plan.**

Herdowners should consider the wider potential advantages and disadvantages of using CMR which are outlined in the AHI leaflet 'Technical notes on calf milk replacers (CMR), for rearing dairy replacement heifers' [click here](#).