

REDUCING THE RISK OF SPREADING JOHNE'S DISEASE (JD) TO AT CALVING TIME

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Johne's disease, caused by *Mycobacterium paratuberculosis* (MAP) bacteria, is a chronic, incurable condition that affects the gastrointestinal tract of cattle. Managing Johne's disease around calving time is crucial to prevent the spread of infection to newborn calves. Here are some key management practices:

1. Calving Pen Management

- **Separate High-Risk Cows:** Cows known or suspected to be infected with Johne's disease should calve in a separate area to reduce the risk of contaminating healthy calves.
- **Clean Environment:** Keep calving pens clean and dry. Remove manure and bedding between each calving to minimize environmental MAP contamination. It is very important to keep the calving pens and calf rearing areas of the farm separate from each other and clean. Remember, that a high standard of hygiene within the calf environment is crucial, i.e. calf areas must be kept as clean and free of manure as is practically possible.

2. Calf Management

- **Quick Colostrum Feeding:** Feed calves clean colostrum as soon as possible, ideally within the first 2 hours of birth, and use colostrum from low-risk cows if possible. High-risk colostrum and milk will include milk from test-positive cows, milk from the daughters of test positive dams, and waste milk (i.e. milk discarded due to treatment for other conditions).
- **Avoid Contaminated Milk:** Do not feed waste milk or milk from JD positive cows to calves.
- **Separate Housing:** Remove calves from the calving area immediately after birth and house them in a clean, isolated environment to avoid exposure to infected manure.

3. Testing and Monitoring

- **Test Adult Cows:** Use herd testing methods such as the ELISA milk or blood test and the faecal Ancillary PCR test (ANC) to identify JD high risk cows. These high-risk cows are the most likely cows on the farm to be shedding the MAP bacteria in their manure.
- **Cull Positive Cows:** Consider removing high risk animals from the herd to reduce overall MAP burden.

4. Hygiene Practices

- **Limit Manure Contact:** Reduce as much as is practically possible calves coming into contact with adult cow manure. This is a primary transmission route for MAP.
- **Sanitize Equipment:** Clean and disinfect feeding equipment, boots, and tools regularly.

5. Feeding Management

- **Colostrum Handling:** The harvesting and feeding of colostrum and milk should be carried out as hygienically as possible using clean and disinfected equipment and feeders.
- **Use Milk Replacers:** Consider using pasteurized milk or commercial milk replacers (CMR) instead of raw milk from the herd. 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 known infected 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 as opposed to feeding pooled, whole milk. The risk with pooled milk in an infected herd is that it is likely there will be infected cows present that have not yet been detected and these will pose an unidentified risk to calves.

6. Long-Term Prevention

- **Closed Herd Policy:** Avoid purchasing animals from unknown or high-risk herds. If purchasing is necessary, ensure the source herd is low risk for Johne's disease, demonstrated by long term adherence to a structured JD programme based on effective risk management and regular herd testing.
- **Biosecurity:** Limit access to the farm and maintain strict biosecurity protocols to prevent the introduction of MAP.

7. Education and Communication

- **Train Staff:** Ensure all workers handling calving and calf-rearing are trained on JD prevention strategies.
- **Work with your vet:** Collaborate with your vet implementing advice given in your farm Veterinary Risk Assessment and Management Plan (VRAMP).

Preventing Johne's disease transmission during calving requires a combination of careful management of both cows and calves. This management must apply the knowledge that the biggest risk for a newborn calf is the ingestion of MAP bacteria directly from its environment. Over time, attention to detail breaking the cycle of infection of newborn calves in your herd can significantly reduce the prevalence of the disease.

Remember if you need any more information about the Irish Johne's Control Programme (IJCP) please refer to the Animal Health Ireland website for further details [**Johne's Disease - Animal Health Ireland.**](#)