

DAIRY

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Keeping dry cows and in-calf heifers clean

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Mastitis pathogens can thrive in typical cattle housing.



You may have a break from milking for a couple of weeks but that doesn't mean a break from mastitis!

Many studies have demonstrated that over 50% of mastitis cases occurring in the first 100 days of lactation are because of infections acquired during the dry period. Many environmental mastitis pathogens thrive in conditions typical in cattle housing, whether that's high humidity (damp cubicles

or bedding), temperatures from 5-15°C, and pooling water or slurry. It is important to prevent new infections, which is why good management and monitoring of cows and in-calf heifers during the dry period are essential. If we can make improvements to the dry cow environment to improve hygiene and ventilation, and reduce moisture levels, we have a better chance of reducing the risk of infection. It is important that the pre-calving accommodation is fit for purpose, has enough space and provides a clean, dry and comfortable environment. Give as much attention to the hygiene and cleanliness of this group of animals as is spent on the lactating animals.

Heifer mastitis

Keep young and pre-calving heifers separate from older cows. Improving the udder health at farm level will decrease the infection pressure of udder pathogens from older cows to heifers. Heifer mastitis can be a significant problem for some herds and can threaten production and udder health in the first lactation and in subsequent lactations. Heifers that develop mastitis in the first 30 days after calving produce less milk and are likely to be less profitable over their lifetime. Given the substantial costs associated with rearing heifers, it is imperative that mastitis is prevented in the first lactation. Heifer mastitis is commonly diagnosed after calving when the animal begins milking and either abnormal milk or an increased somatic cell count (SCC) is detected. Exposure of the teats to pathogens in the pre-calving environment can result in infection before calving.

Milk records

Now is a good time to review your milk records from last spring to see what the incidence of heifer mastitis was on your farm. Investigations and specific controls are warranted if more than 15% of your heifers either had clinical mastitis at/around calving, or had a first milk recording SCC of >150,000 cells/ml, when recorded at 15-35 days in milk.

If these records aren't available, it is something to focus on this spring, especially if you are concerned about the level of mastitis in your heifers.

It requires good records of clinical mastitis cases and a first milk recording carried out within 35 days of the start of lactation.

Teat spraying three times per week with an appropriate teat spray for the last two to four weeks before calving has been shown to reduce the number of certain bacteria at the teat ends and the risk of heifers calving with mastitis. This could be done when parlour training the heifers pre calving.

Research has shown that teat sealing heifers four to six weeks before calving, if done properly, can reduce the incidence of heifer mastitis in problem herds.

It is not licensed for use in heifers in Ireland and should only be done if recommended by your veterinary surgeon.

The procedure is not without risk to the heifer if not done with the greatest attention to hygiene and is dangerous for the operator without suitable handling facilities, such as a rollover crate.

Teat sealant should not be used as a substitute for good husbandry and management of heifers.



SPECIAL FEATURE

Setting up the farm for spring: supplies

In the third of our special features looking at setting up your farm for spring 2021, MARION BEECHER and MARTINA GORMLEY look at getting supplies in place for the calving season.

Spring is one of the most demanding times of year on a dairy farm. Weather challenges combined with the workload associated with compact calving can result in increased stress and workload for farmers, their families and employees. There are practical approaches that can be used to help it go smoothly and

with less stress. Preparing as much as you can in advance will allow for more time to deal with any problems or weather events that occur.

A checklist can be useful to ensure that nothing gets forgotten and that everything gets done in a timely manner.

Table 1: Milking and calf-rearing facilities and practices associated with reduced labour demand.

Milking	Calf rearing
<input type="checkbox"/> Calving area	Wash, disinfect and bed calving area; ensure calving gate and other gates are working properly; prepare a calving kit – jack, leg ropes, gloves and lubricant; and, stock up on calcium and magnesium, etc.
<input type="checkbox"/> Calf shed	Wash, disinfect and bed calf shed; order tags and buy electrolytes; have tagger, tags, navel disinfectant, stomach tube and straw in calf shed; and, ensure that you have enough space for calves.
<input type="checkbox"/> Milking parlour	Service milking machine and change liners; buy teat dip and detergents; and, have tape and marking spray in the parlour pit.
<input type="checkbox"/> Grazing	Purchase temporary fencing posts; and, water troughs, fences and roadways should be checked and repaired.
<input type="checkbox"/> Animal care	Train in-calf heifers in the milking parlour; clip cows' and in-calf heifers' tails; analyse silage and order dry cow minerals to complement results; put a dry cow diet and feeding plan in place (purchase supplementation if required); and, treat dry cows for fluke and worms and vaccinate cows according to farm vaccination plan (calf scours, etc.).
<input type="checkbox"/> Personal	Organise/hire people and ensure everyone is familiar with the farm before calving starts; train any new staff; organise roster with family/part-time/full-time staff; create standard operating procedure for key tasks such as milking and calf feeding; have a spare set of wellies, wet gear; and, visit GP for a check-up.

Virtual CalfCare week



Improved husbandry has resulted in increased calf survival.



Animal Health Ireland (AHI) and Teagasc are working together in January to run their annual series of

CalfCare events. With over 1.6 million calves expected to arrive on beef and dairy farms by the end of April 2021, spring has become an increasingly intense part of the farming calendar. Improved husbandry practices have resulted in increased survival rates reported on dairy and beef farms nationally. Further improvements are possible. Because of the restrictions on gatherings due to Covid-19, the 2021 CalfCare week will run as a series of webinars, podcasts, newspaper articles and social media. The week will run from Monday to Thursday, January 18-21.

More information will be available on the AHI and Teagasc websites over the coming weeks. Also keep a lookout for updates on social media.

Early nitrogen application



Lack of nitrogen (N) supply in the soil can limit spring grass growth.

While the appropriate application of early N is beneficial to boost grass growth and spring grass supply, the

incorrect application of early N is wasteful, costly, pollutes water and increases greenhouse gas emissions. Use protected urea for early N applications. Apply up to 30kg N/ha (24 units N/ac) in first split in late January or early February and avoid fields that have received an application of cattle slurry.

Target fields for early N that are most likely to respond to an early N application:

- perennial ryegrass/recently reseeded fields;
- drier, free draining fields;

- fields with a grass cover of greater than 400kg DM/ha or 6cm grass; and,
- fields with good soil fertility, i.e., good phosphorus (P) and potassium (K) status, and pH >6.2

Replace chemical N fertiliser on approximately 33% of the farm with cattle slurry. Target slurry applications to fields with low P and K levels and low grass covers. 2,500 gals/ac by low emission application will supply 20 units/ac of available N. Remember:

- don't apply fertiliser N or slurry before the end of the prohibited spreading period for your region; and,
- check weather forecast (www.met.ie) prior to making fertiliser/slurry applications.