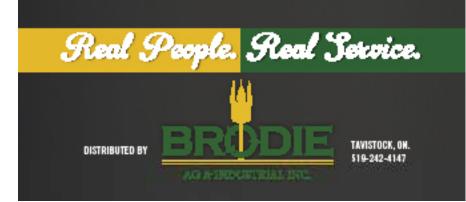




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# 5 tips for a successful dry period

Sydney Moore and Casey Havekes for Progressive Dairy

# AT A GLANCE

Milking, feeding, treatments and stressors are areas to focus on when setting cows up for dry-off.

The dry period is essential for dairy cows to allow for regeneration of milk-secreting tissue and prepare the udder for optimal success in the next lactation. This period can also be very stressful on the animal due to social, physiological and nutritional changes, making it increasingly important to pay close attention during this time. Ensuring cows are effectively dried off to reduce intramammary infections and discomfort, combined with proper nutrition and general management, is essential for cow health and productivity in the following lactation. This article highlights five tips to promote a healthy, successful dry period.

#### Gradually reduce milking frequency in the week leading up to dry-off

A common but controversial topic within the dairy industry is how to properly dry off cows. Abrupt dry-off is still commonly used, where cows are milked normally (2X or 3X per day) up until the day of dry-off. Gradual dry-off reduces milking frequency to around 1X per day to reduce milk yield leading up to dry-off. While some literature is conflicting as to which method is better, overall gradual reduction is deemed more efficient at reducing milk yield, accelerating mammary involution and reducing intramammary pressure. Research from the University of Helsinki in 2020 has also demonstrated many positive impacts of gradual cessation of milking, including reduced stress and discomfort and improved cow welfare post-dry-off.

#### 2 Aim to reduce milk yield to 15 kilograms or less by the time of dry-off

Research from the University of Guelph and Ohio State University have shown that milk yield at the time of dry-off is the most important factor correlated with intramammary infection/mastitis (Figure 1). Cows with higher milk yields at dry-off (greater than 15 kilograms per day) experienced a greater degree of milk leakage, intramammary infections and a higher incidence of mastitis in future lactations. Researchers from the University of British Columbia have also investigated the impact of skipping a milking the day before dryoff, and they found promising results in regard to further decreasing milk yield before dry-off. Another strategy

to limit milk production prior to dry-off is to introduce a lower-energy diet. Combined, these efforts will help cows achieve a target threshold of 15 kilograms or less by dry-off.

### Be thorough, consistent and patient with (or without) dry cow therapy

If using dry cow therapy, ensure each teat is thoroughly cleaned with disinfectant, antibiotics are administered correctly, and teats are properly sealed. While it may seem taxing on your daily tasks, these small acts are crucial for mammary health and productivity in her next lactation. As concerns with antibiotic usage continue to increase, researchers have been thoroughly investigating blanket versus select dry cow therapy. Consult with your veterinarian when considering an approach to drying cows off. Select dry cow therapy has proven to be effective in some circumstances, but it is not a "onesize-fits-all" approach. Researchers are still developing mathematical models to identify good candidates for this approach – and while there is great potential, careful consideration should be used when making these decisions in your herd. Keep in mind, each mastitis case costs Canadian dairy farmers approximately \$660 per cow per year. Being proactive and making the decision that best fits your management and your cows will always pay off in the end.

Feed the appropriate diet 4 How to feed dry cows has become a hot topic in the last decade, with several researchers and industry professionals promoting controlled energy dry cow diets, or more commonly referred to as the "Goldilocks diet." These diets incorporate high quantities of lownutrient-dense forages (such as wheat straw) to reduce the dietary energy density and limit body condition gain. When managed correctly, these diets have been proven effective for promoting metabolic health postcalving.

Pay close attention to straw particle size in the diet, as recent research from the University of Guelph has shown positive impacts of feeding straw with a 1-inch chop length versus a 4-inch chop length. Further research from the University of Guelph also proved that providing a liquid molasses blend dry cow product (Promix Dry Cow) will prepare the rumen for the fresh cow diet. These benefits include improved intake in the week leading up to calving, reduced sorting and lower BHB levels three weeks after calving. Additionally, pay attention to mineral levels in the close-up diet. Anionic supplements or a calcium binder are commonly added in dry cow diets to help control the risk of milk fever.

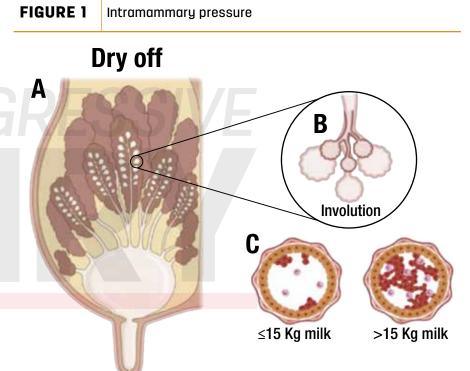


## 🗲 Limit stressors

The dry period is a stressful time for cows, as there are several changes and challenges they will face within a short period of time. While some of these stressors (dietary changes and pen changes) are inevitable, there are others we can control and limit through good management.

Avoid introducing new animals to the pen as much as you can. Each time new animals enter a pen, antagonistic interactions increase while eating and resting time decrease – all of which are particularly detrimental in the weeks leading up to calving. Additionally, stocking density in the dry period should be under 100% to ensure all cows have access to lying and feeding space (recommended 30 inches per cow). Keep in mind, space requirements will naturally increase as cows progress through their pregnancy, so try to ensure sufficient stall width (or at least 100 square feet of bedded pack space per cow) in the pre-fresh pen.

Last, recent research out of the University of Florida has highlighted the importance of providing heat abatement in the dry period – not only for the dam but also for the



Source: Adapted from Pascottini et al., 2020

calf. Cooling cows during the dry period can increase mammary growth, thereby resulting in better production throughout her lactation, improved immune status and promote dry matter intake (DMI) throughout the dry period.

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Cooperative Extension. They provided the article on behalf of Liquid Feeds Inc.

References omitted but are available upon request.

