

REVIEWING DRY COW PROGRAMS AND PROTOCOLS

Editor's note: This article was provided by Ann Godkin on behalf of the selective dry cow therapy project advisory committee, which includes producer Norm McNaughton, along with Guy Seguin and Ashley Wannamaker from Dairy Farmers of Ontario, Robyn Elgie from the Ontario Association of Bovine Practitioners, Richard Cantin from Lactanet Canada, Dave Kelton from the Ontario Veterinary College and Cynthia Miltenburg from the Ontario Ministry of Agriculture, Food and Rural Affairs.

Reducing antibiotic use at dry-off when using selective dry cow therapy (SDCT) may change mastitis risks. SDCT is done successfully in herds with minimal mastitis risks in the dry period. With or without a change in antibiotic use, herd owners can optimize dry cow management by reviewing current protocols and procedures. Owners can assess their own risks. However, someone not involved in daily herd management is a good resource for a more objective evaluation. The herd veterinarian can fulfil this role since they visit the herd on a regular basis, are familiar with the herd owner's goals, know the herd mastitis history and will be present in the future to help fine-

tune any management changes.

As part of the SDCT project, important risk areas for managing dry cows have been identified. To help with evaluations, a summary form and guidance document have been created on assessing the risks for mastitis if antibiotic at dry-off time is reduced. Through on-farm discussions, a producer and his or her adviser can use the guide to identify high-risk practices in 20 to 30 minutes. Once completed, recommendations can be prioritized to address the greatest risks. Mitigating risks is important before reducing antibiotic use at dry-off.

END OF LACTATION RISKS

Mastitis cases can result from existing infections that persist into and beyond the dry period. Records of cow somatic cell count, milk cultures, milk polymerase chain reaction (PCR) tests (Mast4) and other tests can be used to estimate the rate of infection at the end of lactation.

Low-risk herds have enough data available to show mastitis prevalence at dry-off is low. Herds with little diagnostic information, or ones that frequently add cows from other herds, are higher risk and benefit from continued use of blanket antibiotic treatment at dry-off (BDCT).

EARLY DRY PERIOD RISKS

Research and practical experience emphasize the importance of lowering milk production before dry-off to protect the udder from infection. A precise review of the steps taken on-farm to reduce milk production, such as changes in feed and-or milking frequency, as well as the number of days before dry-off that these changes start, will help evaluate the degree of risk.

Protecting teat ends at the end of lactation may be done with dry cow antibiotic and-or teat sealant products. If used, reviewing the protocols for applying these products will ensure bacteria are not introduced during application. Current practices can be compared with the recommended protocol that includes the use of gloves, meticulous teat end disinfection with one alcohol swab per teat, partial insertion of the product tube, appropriate udder massage for dry cow antibiotic, teat pinching for teat sealant and teat dipping after application.

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NOTICE: To keep Ontario dairy producers and other industry sectors informed, Dairy Farmers of Ontario (DFO) publishes changes to its regulations. Complete regulations are available on DFO's website at www.milk.org.

DFO Regulation 03/20 replaces DFO Regulation 02/20 and was made to adjust the price of Special Milk Classes as a result of a Canadian Dairy Commission (CDC) announcement, effective March 1, 2020, as follows:

Class	Butterfat Price (\$/kg)		Protein Price (\$/kg)		Other Solids Price (\$/kg)	
	New	Old	New	Old	New	Old
5(a)	6.0926	6.3746	8.5418	10.6036	0.4088	0.3894
5(b)	6.0926	6.3746	3.0770	3.0137	3.0770	3.0137
5(c)	5.8760	5.5042	2.9763	2.8022	2.9763	2.8022

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A GOOD PRACTICE TO REVIEW SDCT GUIDANCE DOCUMENT

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About 15 to 25 per cent of cows may leak in the first 24 hours after dry-off and will have six times greater risk of mastitis in the next lactation. Identifying and recording leaking can help individual cow management and, if the proportion of leaking cows is high, motivate changes to dry-off protocols for the herd.

An evaluation of housing hygiene is essential for identifying mastitis risks for dry cows. Newly dry cows should have adequate room and clean, dry bedding.

PRE-CALVING RISKS

As calving approaches, metabolic and hormonal changes may compromise a cow's immune defences. Housing and bedding must keep teat ends clean. Assessing udder edema and leaking in close-up cows is recommended.

Vaccination for mastitis should be discussed with a veterinarian and done according to the product label. When the time interval between vaccinations is not consistent with the interval on the label, efficacy is reduced.

CALVING TIME RISKS

Assessing the calving area's hygiene and frequency of use may identify risks for mastitis. The length of time calves stay with cows can be important since frequent opening of teat ends through nursing can allow bacteria to enter. The cleaning routine for fresh cow milking equipment should be evaluated.

Routines for detecting mastitis at calving are critical since recognizing very early cases can help ward off clinical mastitis in early lactation. About 50 per cent of clinical mastitis in the first 30 to 60 days of lactation may be from infection starting in the dry period.

To protect milk quality, when internal sealant is used, the product must be manually removed before milk enters the bulk tank. Quebec researchers detected sealant in cows' milk from two to four days post-calving and, rarely, up to 12 days. On the other hand, about 20 per cent of teats had no sealant plug present at calving. Recording the presence of sealant at calving may be useful for monitoring dry cow protocols. Information from a sealant company indicates 10 to 12 strippings per teat at the first four milkings is recommended for sealant removal. A discussion about proper sealant removal is likely warranted in many herds.

Using the SDCT project guidance document to review dry cow management with a herd veterinarian can lead to important changes that will prevent mastitis in future lactations. While considering a reduction in antibiotic use may provide the initial motivation for doing this, a good review can benefit most herd owners whether antibiotic use is reduced or not. Updating the dry cow program using information gathered from the discussion guide could be a good winter project for many herd owners this year. The guidance document and summary form are available at www.SCC200.ca.

Representatives from Dairy Farmers of Ontario, Lactanet Canada, the Ontario Association of Bovine Practitioners, the Ontario Ministry of Agriculture, Food and Rural Affairs and the Ontario Veterinary College are working with Ceptor Consulting on this project. This project was funded by the Canadian Agricultural Partnership, a five-year federal-provincial-territorial initiative.



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