Early dry-off can help manage market unpredictability

Longer dry periods reduce production while maintaining future production capacity

By Lilian Schaer

KEEPING COWS IN DRY periods longer than usual is one way farmers can manage market unpredictability in the COVID-19 pandemic environment.

Farm & Food Care Ontario brought together Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) veterinarian Dr. Cynthia Miltenburg and OMAFRA dairy specialist Marlene Paibomesai for a recent webinar on how to best manage cows through a longer dry period.

According to Paibomesai, drying cows off early is a quick way to reduce production while maintaining herd size and future production potential.

"We need to remember that the dry period is a sensitive time: the last trimester of gestation has rapid fetal growth and development, so we don't want to impact that too much," she said. "If close up management at three weeks before calving is working well, don't fiddle with it, but look at extending the far-off dry period."

When selecting cows for earlier dryoff, it's important to look at both the herd as a whole as well as individual animals.

According to Paibomesai, that means production planning and evaluating current inventory, how many cows and heifers are calving each month and their expected calving dates, and their days in milk.

As well, housing and feed needs must be considered, along with the herd's current transition cow health status, including ketosis, milk fever, metritis and other problems.

"If transition period disease is already a problem, early dry-off may

not be an option for you," she advised.

Not all cows may be good candidates for early dry-off. Producers should look at each cow's records – daily milk production, days in milk, ranking based on income over feed, expected calving dates and health records from previous transition periods – as well as the cow herself. An optimal body condition score at calving should be three to 3.25 out of five, Paibomesai said.

Housing is a key consideration for dry cows, stated Miltenburg, which includes avoiding overcrowding, minimizing stress and providing a clean, dry place to rest.

"A goal is to reduce competition and ensure bunk access so provide at least one stall per cow or 100 square feet per cow in a bedded pack and 30 inches of bunk space per cow with clean, comfortable bedding," Miltenburg said. "Minimize regrouping stress, particularly for cows within one week of calving, by limiting the number of times per week new cows are added."

Ensure timing of things like hoof trimming, vaccination and anionic salt feeding are based on each cow's predicted calving date, she added.

Reducing milk production prior to dry-off will decrease the risk of milk leaking one to two days after dry-off and the potential for udder infections. Research has shown that cows producing more than 21 kg of milk per day at dry-off are at greater risk of teat



With current market turmoil creating challenges for dairy producers, early dry-off is one way to reduce short-term milk production

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ends not closing and developing mastitis.

To prepare cows for dry-off, Miltenburg advised starting a week before the anticipated final milking date by reducing milking frequency, changing their ration to one lower in energy and protein, and moving them away from cows milked on the full schedule to reduce milk let-down triggers.

Preparation of cull cows should begin one week before shipping. For some cull cows, time to slaughter may be up to seven days after leaving the farm and Canadian livestock transport rules don't allow transport of a lactating animal unless it can be milked, so addressing milk production level is key.

For cows now in a longer dry period, Paibomesai encouraged producers to review their formulated dry cow ration with their nutritionist to ensure cows still reach the optimal body condition score at calving.

Some best management practices include reducing competitive behaviour so cows can eat when they want and get enough energy and protein and ensuring optimal particle size to reduce sorting.

Dry cows on pasture need shade and water access; mineral supplements and a daily check-in to ensure they're doing well are also recommended.

Longer dry periods aren't without some risk, though, but these risks can be avoided or minimized with good management. According to Miltenburg, a major goal of the dry period is to prevent new udder infections.

"There is very limited research looking at long dry periods and udder health, but there is a weak trend towards increased risk for higher somatic cell counts after calving and increased intramammary infections," she said. "We do know cows producing more milk at dry-off have higher

somatic cell counts in the following lactation, so address production levels before drying off."

Other best management practices for good udder health include evaluating individual herd risks, applying a herd dry cow therapy protocol, using internal teat sealants to prevent introduction of bacteria and ensuring clean, dry housing.

There has also been limited research into the impact on milk production in subsequent lactations following a longer dry period, and according to Paibomesai, most studies that do exist are generally observational.

"There's no to little impact on milk production in early lactation bit we see a bit more impact in the next lactation where longer dry periods have more impact on persistency, and the impacts are greater for multi-birth cows," she said. "there is a decrease in lifetime milk production with an increased number of days dry; over 80 days dry is not recommended because of reduced production."

Paying attention to body condition score is also important, she added. Thin and fat cows are at the greatest risk for infertility and disease after transition. •

Early dry-off checklist

- Review records to decide if this is a herd level strategy and look at individual cows to see if they could be participants.
- ✓ Monitor early dry-off cows closely.
- Manage milk production before dry-off to reduce infection risk and keep somatic cell counts lower during the next lactation.



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