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Manage your dry cows for production and reproductive success

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MANAGING TRANSITION COWS PROPERLY sets the stage for a productive and profitable lactation. All too often we fall into the trap of ignoring dry cows until the day they calve and then wonder why we are not reaching our production and reproduction goals. Transition success starts the day you dry a cow off.

In reality one could argue that transition success is predicted by the days open in the previous lactation and by the number of days that the cow is dry. A study published in the Journal of Dairy Science reports that the risk of death and or live culling within 60 days of calving is greatly increased in cows that are open for longer than 211 days, and in cows that are dry for greater than 70 days. The risk of death within 60 days after calving ranged from 2.9% in cows dry less than 41 days to 4.3% in cows dry longer than 70 days. Similarly the risk of voluntary culling increased from 5.9% to 6.9% respectively.

Drying off low production, late lactation cows early will have some positive consequences including increased average milk production/cow/day, an opportunity to manage your cell count, and all of the cows are retained in the herd for future production. There are also some potential negative consequences. As the length of the dry period extends beyond 70 days there is a reduction in the milk yield in the subsequent lactation, an increased risk of clinical mastitis in the next lactation, and increased risk of metabolic disorders including milk fever, displaced abomasum, retained placenta and metritis.

Investigations into the length of the dry period have consistently reported optimal productivity and health with dry periods between 40 and 70 days long. Heifers finishing their first lactation should have a dry period not less than 45 days. This length permits maximum milk production in the subsequent lactation with no negative effects on health and reproduction. Cows with a dry period less than 30 days tend to return to a regular estrous cycle before cows with traditional dry periods, however they also produce less milk. Cows that are dry longer than 10 weeks are more likely to return to a regular estrous cycle later than cows

with a normal dry period.

Finally the risk of clinical mastitis within the first 60 days after calving is greatly increased in cows that are dry for longer than 60 days. An average of several studies published in the last three years would indicate that the risk is doubled from approximately 4-8 per cent as the length of the dry period is increased.

Focusing on your dry cows represents a significant opportunity for increased production and health. Transition cow health is multi-factorial. This means that you need to do all of the little things right. In broad categories these include:

1. Monitor dry matter intake in your dry cows. Research from the University of British Columbia would suggest that for every 1 kg decrease in dry matter intake cows are 3 times more likely to suffer from metritis. There are several strategies to feeding your dry cows.

Choosing the strategy that is right for you depends on the feed you have available your method of feed delivery (TMR vs. Component feeding), the number of cows and the space you have available for your dry cows.

2. Do not over-crowd your dry cows. Dry cows require at least 30 inches of bunk space and at least 110 square feet of bedded pack per cow. They require more space if there is a post and rail feed bunk and if there is not a proper feed alley. In a freestall dry cow pen you should not exceed 80% of the stalls being used. Keeping your dry period at or below 60 days will allow you to use your available dry cow space efficiently. Deciding to keep dry cows around for longer than 70 days increases the chance that every cow will under-perform in their next lactation.

3. Have a plan to cool your dry cows. Heat stress during the dry period reduces milk production. This alone could explain a decrease in peak milk in cows calving for fall incentive. A recent study cooled dry cows with fans and sprinklers for the entire dry period. Cooled cows averaged 5 kg more milk per day for the first 40 weeks of lactation. This is a total of 1,400 litres more milk than the cows that were not cooled.

4. Design and adhere to a strict mastitis prevention program. The risk of environmental mastitis is the greatest at dry off and at calving. The use of a dry cow intramammary antibiotic plus an internal teat sealant has significantly reduced the risk of mastitis at dry off. Combining this protocol with an E. coli mastitis vaccine has significantly improved udder health in fresh cows.

5. Implement a have a hoof trimming schedule and a hoof bath. Ideally every cow should be trimmed before dry off and again in early lactation. In addition cows that have a lameness issue during the dry period must be dealt with quickly.

Your reward for focusing on these broad areas will be increased milk production, less sick cows and improved reproductive performance in the next lactation.