



# Increasing Milk Production by Increasing Milking Frequency and Reducing Dry Period Length

Guide D-109

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With springing heifer prices likely to remain high in the near future, what options are available to producers to lower replacement costs? One step you can take is to get more out of the cows in your milk string. This may help you ship the same amount of milk with fewer cows. This article highlights three management changes from recent research that may help you produce more milk per cow.

**Reduce overcrowding.** Cattle produce more milk when they are in an ideal housing situation than when they are in an overcrowded one. Stock your facility with the optimum number of animals rather than filling it to capacity. By reducing overcrowding you can reduce the number of heifers you purchase and you can increase milk per cow.

**Consider milking recently fresh cows four or more times per day.** Research has shown substantial increases in milk production when cows under 30 days in milk were milked 4 to 6 times per day. Cows gave more milk during the period of frequent milking and these increases persisted after milking frequency was decreased. Switching your whole herd from 2x to 3x milking should yield approximately 7.7 lbs more milk per cow per day. However, you can realize 85% of that increase or 6.6 lbs per cow per day by increasing milking frequency of fresh cows from 2x to 4x for 21 days starting on day 4 of lactation (Hale et al., 2003). Additional research has shown fresh cows milked 6x for the first 21 days of lactation produced 6.5 lbs per day more than their 3x herd counterparts (29,000 lbs vs. 27,000 lbs). Average Somatic Cell Count Scores were 3.12 for cows milked 3x and 2.31 for cows milked 6x (Dahl, 2003). Milking fresh cows frequently makes sense. Milk production is inhibited by intermammary gland pressure; the more frequently a cow is milked, the less likely intermammary gland

pressure is to inhibit milk production. In addition, milk production may be highest immediately after milking. Despite the fact that more frequent milking means that the teat canal is opened more often, data from these trials did not indicate that udder health suffered and may have actually improved. More frequent milking may serve to flush out microorganisms before they can establish themselves.

**Consider shortening the dry period.** Conventional wisdom has always held that cows need 60 days dry. Observational research using DHIA records has always supported the conventional wisdom. However, these studies featured unplanned dry periods, and the cattle being evaluated were not randomized. Current research using planned shortened dry periods, has shown that milk production in the next lactation does not suffer from dry periods shorter than 60 days. Therefore, it may make sense to delay drying off cows that are still milking profitably at 60 days prepartum. How short can the dry period go? That is a question that researchers are trying to answer; however, several studies have shown that dry periods of 32 to 34 days do not have a substantial negative impact on the next lactation and allow producers to benefit from 30 days of extra milk (Schairer, 2001; Bachman, 2002; Gulay et al., 2003). In addition, delaying dry-off may reduce transition cow problems by eliminating the need for far-off dry rations and two ration changes. Delaying dry-off may make sense in your herd, especially if you do not have more profitable cows or heifers to replace the cows that would be exiting the milk string. Despite this positive research, caution should be exercised with the use of this management tool. Good records must be kept to ensure that cows get the dry period as planned. Dry cow therapy can create a problem with cows

remaining antibiotic positive longer in early freshening. In addition, studies have not been conducted on the effect of a shortened dry period on longevity of a cow in the herd.

It is true that keeping your dairy at full capacity will spread fixed costs across more animals. However, getting the most out of your cows can make your operation more profitable. Increasing per-cow production can let you ship the same amount of milk with fewer cows and reduce the need for high-priced outside replacement heifers. It can also reduce feed costs because a smaller percentage of feed will go to cow maintenance and a larger percentage to milk production. It may also reduce transition cow problems and labor by eliminating far-off dry cows.

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