Dry Periods Are Important

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Over the last three years there have been several dairy magazine articles and research reports about shortening the dry periods of cows. The traditional practice of letting cows have a 60-day dry period between lactations was questioned after Florida researchers found little difference in milk production in the subsequent lactations of cows when their dry periods were shortened from 60 to about 30 days. After the results of the study were published, many people then wondered how long the dry period needed to be. Some people even wondered if profitability could be maximized by eliminating dry periods. With the ability we now have of feeding and managing cows for maximum productivity perhaps dry periods were not required by all cows.

A recently published article in the Journal of Dairy Science supports continuing the practice of giving cows dry periods. However, the Danish researchers did not answer the question of how long or short the dry period must be. The study they conducted compared the metabolic status and milk production performance of high producing cows given either a 7-week or no dry period between lactations. High producing cows were defined as those with peak milk yields of more than 100 pounds per day. The cows were producing more than 55 pounds daily at the 7-week dry-off time. (Note that the 7-week period is about 10 days shorter than the traditional 60-day dry period still used by many producers.)

The researchers found that only about 1/3 of the cows assigned to the no dry period group actually continued to lactate throughout the gestation period. The rest of the cows either dried themselves off before parturition, or reduced their daily milk production to below about 11 pounds per day and were thus dried off.

In the first 5 weeks of the subsequent lactation the cows with the 7-week dry period produced about 22% more milk than those with no dry period. This production difference occurred in spite of the finding that cows in both groups consumed the same amount of dry matter intake daily, and their changes in body weight and body condition score during the 5 weeks pre-partum through 5 weeks post-partum were not different. Cows in the 7-week dry period group, however, experienced more metabolic imbalances, as their need for nutrients to support milk production was greater than was the amount of nutrients being consumed. More body fat was apparently being mobilized in the cows with the 7-week dry period, even though the body weight and body condition scores did not reflect this.

While this study shows the need for a dry period, how long the dry period needs to be will vary between cows. Many producers have learned from experience that some cows can handle a shorter dry period, while others can not. The age of the cows, the body condition of the cows when they are turned dry, the quality of the ration the cows receive while they are dry and also after they freshen, the transition ration the cows
receive during the late pregnancy period, the health status of the cows, and other factors all have an effect on how long the dry period should be.

The general recommendation I give when asked about what the dry period length should be is that heifers completing their first lactation should, in most cases, receive the traditional 60-day dry period to allow for body growth. Older cows, if in good body condition and fed correctly, can usually handle a 40-50 day dry period. Some people have even successfully reduced the dry period of their cows to about 30-35 days. The level of management given to the herd is the key to how short the dry period can be.

While it is always a safe practice to check the milk of fresh cows for antibiotic residue resulting from treatment of an illness, dry cow or pre-freshening udder therapy, this practice is especially important when cows are given shorter dry periods. Discuss shorter dry periods with your nutritionist, veterinarian, or other qualified consultant before implementing this practice in your herd.