Roy Fogwell  
Dept. of Animal Science

The obvious advantage of shorter time that cows do not lactate is that more time will be spent lactating with consequent increase in milk per day of calving interval. The idea of shorter “dry periods” has generated much interest. The objective of this discussion is to pose the questions that you should ask yourself before shortening dry periods. Note that this discussion is about shortening the dry period from 60 to 30 days. Based upon research, elimination of the dry period is not recommended.

Potential Advantages

In addition to more milk, other advantages of shorter dry periods are: fewer nonproductive days, the possibility to not change diets, avoiding crowding of facilities for dry cows, and reducing the need to move cows among farms. There is also evidence that cows that are dry for only 30 days have higher conception rates and have metabolic changes that keep them healthier. Clearly several strong reasons exist to consider this strategy.

Potential Negatives

What are the negatives of shorter dry periods? An average of all of the studies indicates that milk yield in the next lactation is reduced about 5%. In addition, immunoglobulin concentrations in colostrum are reduced. Managers also need to be very vigilant regarding antibiotic residues in milk from dry cow therapy, especially if cows calve early.

Questions to Answer

To make a decision about shortening the dry period, several questions need to be answered. At this time, clear answers may not be available.

1) What are the effects of shorter dry periods on health of cows? Data at this time suggest that cows may stay healthier around the time of calving because of less decrease in appetite, less mobilization of body fat, and lower free fatty acids and ketones in blood. If these benefits occur, they likely are due to minimal changes in the diet during the shortened dry period.

2) What are the effects of shorter dry periods on culling of cows? If cows stay healthy and conceive on a timely basis, less involuntary culling will occur. However, if shortened dry periods are used on only part of the cows in a herd reduced milk yield may increase voluntary culling for low production.
If shorter dry periods are used on most or all of the cows, then they will all have a similar opportunity to have reduced production in subsequent lactations, which will not affect culling decisions.

3) What are the effects of shorter dry periods on health of calves? The limited data available suggest that short dry periods reduce the concentration of immunoglobulins in colostrum. If this is a consistent effect, health of calves may be compromised if total immunoglobulin intake is not adequate.

4) What is the effect of short dry periods on cows of different parities? Parity is the number of calvings that a cow has experienced. A cow’s body and mammary system continue to grow during each lactation to maturity at about 6 years of age. The effects of short dry periods among animals with different parities are not known. Certainly the dry period between first and second lactation would be very important for continued growth of the animal and her mammary system.

5) What is the effect of short dry periods on cows with different yields of milk? Do cows with very high yields of milk need more time to stop synthesis of milk and for complete involution of the udder? Do cows with low yield of milk need more time for regeneration of secretory tissue? Answers to these questions are not available.

6) What is the effect of short dry periods on the association among: non-productive days, yield of milk, health of cows, and culling? This is another important question that is not yet answered.

So, what do you do? Proceed with extreme caution about management of the length of dry periods until some or all of the questions posed above are answered. If you are a bold, adventurous, or aggressive type of manager and you plan to shorten dry periods, here are some cautions that you should consider carefully.

1) There are data that support inclusion of a dry period. Therefore, the only option available to you is to shorten, not eliminate, the dry period.

2) Consider shortening the length of the dry period for your cows if the incidence of twinning in your herd is low, such as less than 5%. Be sure that cows pregnant with twins are identified, because these cows will calve 7 to 14 days earlier than their projected date for calving. For cows that are gestating twins, terminate lactation about 2 weeks earlier compared with other cows or about 6 weeks before expected calving.

3) The dates of conception must be known with certainty. This information is critical to manage the start of the dry period relative to the expected date of calving. It is critical that no dry period should be less than 30 days. Therefore, you must allow for the cows that will calve early and terminate lactation at least 30 to 40 days before expected calving.

4) Especially in larger herds, insemination should occur in groups of cows so that groups of cows can end lactation at the same time. Some type of group breeding program such as Targeted Breeding or Ovsynch would be useful to loosely group calvings and thus dates for ending lactation.

5) You must have records that document you achieved the target for duration of the dry period and that describe the variability of time not lactating. With records you can determine which strategy for managing length of lactation works for your herd.

Shortening dry periods from 60 to 30 days is an exciting prospect because the benefits can be very positive. Effective use of this strategy can only occur with herds that have excellent management. However, there are some real potential negatives and several unanswered questions. Waiting to see the answers to some of the questions probably is a wise strategy. If days dry is highly variable in your herd you should not consider shortening the dry period. With short dry periods, decreased milk yield can lower income while decreased culling may increase income.

References
