

Why Should I Have Two Groups of Dry Dairy Cows?

By: Gustavo Mazon, Dairy Challenge Student and Donna M. Amaral-Phillips, Ph.D.

Management during the transition period, defined as the time period from 3 weeks before the expected calving date until 3 weeks after calving, is important for optimum health and milk production of early lactation dairy cows. During this transition period, a dairy cow goes through several changes (i.e. hormonal, metabolic, and anatomic) that prepare the cow for the upcoming lactation. By separating dry cows into two groups, you can potentially have fewer health problems with cows entering the milking herd. Also, incorporating a good close-up dry cow program could allow your cows to peak 10 pounds of milk higher, resulting in an additional 2500 pounds of milk per lactation per cow with additional income and profit per cow. To capitalize on these benefits, dry cows should be separated into two groups: far-off (60 to 21 days before calving) and close-up (21 days to calving). The remainder of this article provides justification for having two groups of dry dairy cows.

Feed intake: Just before calving, close-up dry cows often decrease their feed intake compared to far-off dry cows, so they need a ration with slightly higher energy and other nutrients in order to satisfy their total nutrient requirements. To insure feed intake, feed bunk space is important. If you have headlocks for your close-up dry cow group, they should have 30 inches/cow. If the barn does not have headlocks, there should be 36 inches of bunk space per cow. By giving them enough bunk space and resting space (at least 100 ft²/cow), the cows will be more likely to maintain their feed intake and get the nutrients required.

Rumen adaptation: The close-up cows should be fed a ration with ingredients that are similar to the ones that will be fed during their lactating period. This will allow the rumen microorganisms time to adapt and also will stimulate the development of rumen papillae which absorb the acids produced by the microorganisms. These management practices will make ketosis and acidosis less likely to occur after calving.

Cow's Health: The close-up period is the best time to prevent the most common disorders that affect fresh cows even ones that are subclinical where you do not see the classic signs of the disorder.

- **Milk Fever:** By using low potassium forages and adding the appropriate amount of anionic salts to the close up diet, incidence of clinical and subclinical milk fever can be reduced. Corn silage is a good forage to use during this period since it is lower in potassium. Large amounts of alfalfa should be avoided.
- **Displaced abomasum and acidosis:** Both of those metabolic disorders can be prevented by using a good strategy during the cow's close-up period. By having adequate amounts of long fiber to stimulate cud chewing or rumination and properly balanced diets, displaced abomasums and acidosis can be avoided. Adding chopped wheat straw to the diet may help prevent these problems. Also, subclinical hypocalcemia (milk fever) can cause an increased incidence of displaced abomasum.
- **Retained Placenta:** Adequate amounts of trace minerals are needed to prevent retained placentas and improve immunity of the dry and fresh cow. For example, selenium should be supplemented to provide 3 mg of selenium/cow/day. Again, subclinical hypocalcemia (milk fever) can increase the incidence of retained placentas.

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin.

Why Should I Have Two Groups of Dry Dairy Cows?

- **Mastitis:** The transition period is when the cow's immunity is at its lowest, the environment provided to the cows to calve should be clean to decrease the probability of clinical and subclinical mastitis during the fresh period.

Observation: When dealing with two small groups instead of a big one, more attention can be given to the cows close to calving. This will allow detection of any unusual behavior or if cows are having difficulties while calving. With that, a faster decision can be made how to best help your cows. The close-up group should be kept in a place where people walk past frequently during their normal daily routine.