

# Management Practices of Close-up Dairy Cows



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The dry period is essential to the success of that cow in her next lactation. Properly managing dry dairy cows is just as important as programs for lactating cows, and yet dry cows often seem to be neglected and forgotten. A critical time in the dry period is the last three weeks before calving, also known as the “close-up” period. During this time, the cow is preparing to start the next lactation. Without adequate management, cows can calve in and fade quickly and lose potential income for their owners. Key management practices: moving cows to the close up pen three weeks before their due date, changing the feed ration, minimizing stress, and using heat abatement are recommended for close-up dry cow and it is important to understand why these practices are important.

**Why Three Weeks?** Dry cows should be moved to the close-up pen three weeks before due date, but where does this recommendation come from? For a lactating cow to be successful, she needs to be able to mobilize calcium from her bones and absorb calcium in her intestines. During the dry period she has not needed to mobilize calcium in great quantities in comparison to the lactation period so her body needs help to start the process to mobilize calcium. This process can take 10 to 15 days. Without adequate time to prepare for lactation, milk fever, both clinical and subclinical (which we cannot see), can be a major issue. Not only are you giving time to set the stage to mobilize calcium, your cows need time for their rumen to adapt to the forages and higher energy diets which are essential to absorb nutrients and prevent problems after calving.

**Why Change the Feed Ration?** Feed rations should change throughout the dry period because the first 5 weeks, the cows are fed for maintenance and the last three weeks cows are fed for preparation of entering the lactating herd. Forages low in energy should be fed during the dry period. In the close-up period, forages should make up about 70 to 80% of the ration. High forage content is important to provide rumen fill as well as adequate but not excessive fiber while still maintaining body stores. Too much weight at the beginning of the lactation can result in fatty liver disease. This diet should still be low in energy, but grain should be introduced during the close-up period. Depending on the quality and type of forages available, 3 to 8 pounds of grain a day may be recommended. Feed additives are used to help cows cope with the demands for milk production after calving. Feeding protected choline helps prevent fat accumulation in the liver. Anionic salts help the cow’s body get ready to mobilize calcium. Vitamin E is essential for prevention and decrease the severity of mastitis, as it helps improve the immune system.

**Why Minimize Stress?** The close-up period is already a stressful time for the dam, and decreasing external stresses can help with calving ease, immunity, feed intake, and overall well-being of the cow. Some ways to decrease stress are providing enough feedbunk space (36 inches per cow), limit the number of pen moves (ideally no pen moves), minimizing heat stress,

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and giving cows enough resting space (at least a 1:1 ratio of beds to cows housed in freestalls or 100 to 125 square feet for bedded pack).

**Why Use Heat Abatement?** Heat abatement through the use of shade, fans and sprinklers is essential for all groups of cows. However, major repercussions can happen if it is not implemented for dry cows. If a dry cow experiences heat stress it can cause her to calve early, decrease her immune system function, decrease milk production in the next lactation, and decrease conception rate. Heat stress also affects the fetus and the calf after she is born. Calves born to heat stressed dams are lower in body weight and have lower milk production when she calves in as a heifer. So, heat abatement isn't just important for this dam, but the next generation as well.

**Take Home Message:**

Close-up dry cow management is essential to an easy transition into the milking herd. Some management practices that are recommended are moving far off dry cows to the close-up pen three weeks before their due date, changing the feed ration to prepare the rumen for the lactating cow diet, minimizing stress and using heat abatement practices. A successful close-up period is linked to a successful lactation.