Managing Transition Dairy Cows

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The transition period is defined as the time frame from 3 weeks prior to calving till 3 weeks after calving. This time period sets the stage for the dairy cow’s next lactation cycle, which makes transition cows one of the most economically important groups to manage. By providing the proper management and nutrition, producers can prepare their cows for a successful and profitable lactation. This article covers some of the key practices for these cows.

Close-up Dry Cows: 3 weeks prior to calving

Important Management Practices

- Facilities should be sized to handle the maximum number of close-up dry cows you will have at a given time, not the average number of cows. Overcrowding greatly impacts future milk production, reproductive performance, and health of these cows.
- Close-up dry cows should be a body condition score (BCS) of 3.0-3.25. If BCS is too high (greater than 3.75, cows have a greater chance of experiencing health issues after calving. If BCS is too low, the cows won’t have enough energy reserves to peak in milk production.
- There should be 1 freestall for each cow with plenty of bedding, or 100 sq ft per cow in a bedded pack/ compost bedded pack system. The housing area should be clean.
- There should be fans and sprinklers to keep cows cool and comfortable and to prevent heat stress. Fans should come on when temperature exceeds 68 degrees Fahrenheit.
- Try to avoid new groupings of these cows. Cows should be added to the pre-calving group no more frequently then weekly. Separate heifers and cows into different groups if possible.
- Provide 36 inches of bunk space per cow in post and rail systems and 30 inches of bunk space per cow if headlocks are used.

Nutrition 3 weeks pre-calving

- Goal is to keep cows eating and maintain rumen fill. Dry matter intakes should be greater than 26 lbs for a Holstein cow and greater than 23 lbs for a Holstein heifer.
- Feed hay in the total mixed ration (TMR) instead of separately.
- Energy requirements for close-up dry cows are 14 Mcals \( NE_i \) and protein requirements are 1100 g of metabolizable protein/d. These diets should be balanced for these cows and not allow energy to be overfed.
- Monitor urine pH of 10 to 15 cows. Urine pH should be 6.0-6.9 for Holsteins if using negative dietary cation-anion diets (DCAD) which contain anionic salts.
- Feed additional vitamin E to provide 1000 IU/day to improve immune function.
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**Fresh Cows: 3 weeks post calving**

Management Practices
- Goal is to keep cows eating and for cows to not drop more than 1 Body Condition Score over 60 days in milk
- Fresh cows should be housed separately from herd and heifers should be grouped separately from cows if possible.
- Housing and feed bunk space requirements are the same as close-up dry cows
- Monitor metabolic and infectious diseases. Early detection is important.

Nutrition
- Ration should include high quality forages with adequate amounts of fiber (21-23% NDF).
- Ration should have slower-digesting starch sources like ground dry shell corn instead of high moisture corn or earlage.
- Supplemental fat should be fed at a low inclusion rate (maximum of 1-2% DM).
- Feed additives such as ruminally protected choline, monensin, and vitamin E should be fed to maintain health.

By following these management and nutritional practices, you can get your dairy cows the head start they need coming out of the transition period to ensure a productive lactation cycle.