



From the desk of Dr. Leon Roggenbuck
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Transition Cows

Transition cow success is dependent on a host of factors.

Much research has been done and much has been written about the needs of transition cows. There is good reason for this. Elanco Animal Health has recently developed a software program that calculates the cost of calving a cow. The number ranges from \$220 up to \$550 per cow. While many factors are considered in the calculation, the number one factor that separates one farm from another is the incidence of negative health events: DA, Metritis, Ketosis, fresh cow mastitis, hypocalcemia. Variations in feed costs and housing costs affect the cost per cow very little by comparison.

The 5 key requirements of transition cows as determined by Dr. Ken Nordlund and his colleagues at the University of Wisconsin has been well publicized. They are, in order of importance:

- 30 inches of feed bunk space per fresh cow
- Minimizing pen moves and social stress in the transition period
- Sand free stalls
- Large free stalls
 - 50 inch wide and 70 inch laying surface from back of curb to brisket locator and a total stall length of 9 feet to provide lunge space
- Competent, quiet low impact screening for sick cows

Our experience on many dairies has convinced us that these recommendations are spot on. We have also learned (often the hard way) that there are other key requirements.

Short particle lengths of high fiber dry cow diets are essential to prevent sorting. Straw in the high straw diets should be less than 2 inches long to help ensure that cows do not sort and actually eat the diet we have formulated for them. This is something we have seen tremendous improvement on in the last 5-10 years.

Keep caloric intake of far off dry cows to 15 to 16 mCals of energy. It would benefit producers to monitor this number. To do this, you need to know the dry matter intake of your far off cows and the net energy for lactation (NEL) of their diet. For example, if your cows have a DMI of 27 lbs. with a 0.59 NEL, they will consume 15.93 mCals (0.59 x 27 lbs). It is still relatively common for close up cows to consume 19 or 20 mCals. This puts on excess fat and increases insulin resistance. This predisposes the cow to ketosis and every other secondary metabolic fresh cow disease.

Cooling of dry cows all the way through the dry period is important. I believe fly control is one of the benefits of fans moving air and cooling cows. Flies are a relentless and painful source of stress to cows. Flies don't like the wind generated from well-maintained fans. Don't forget to clean these fans every year. An old fan with a tight belt and clean blades will move air like new. This is doubly important if you have the smaller

fans with a cage around them. A dusty cage can remarkably reduce air movement. Treating the cows with a permethrin pour on, in addition to spraying the environment will do wonders to make your cows comfortable.

Aggressive acidification of dry cow diets to achieve a urine pH of 5.5 to 6.0 has been shown to be very beneficial in reducing hypocalcemia and all the metabolic diseases associated with it. It is a tremendous aid in transitioning your mature 3rd lactation and older cows. We still see a lot of reluctance to acidify diets. Historical failures due to problems with unpalatable anionic salts or uncommitted dabbling with partial acidification have contributed to this reluctance. A complete discussion on the implementation of dry cow acidification is beyond the scope of this article. I am compelled, however, to share the recommendations of the folks from Prince Agri Products. Their formulation recommendations include the following:

	% Dry Material Basis	grams per cow per day
DCAD	-10 to +15, Eq/100g	
Calcium	1.4 to 1.6	165 to 190
Phosphorus	0.36 to 0.4	43 to 50
Potassium	less than 1.3	
Magnesium	0.45 to 0.5	53 to 59
Sodium	0.1 to 0.2	12 to 24
Sulfur	0.43 to 0.47	51 to 55
Chloride	0.8 to 1.0	94 to 118

As we struggle through this time of low milk prices I want to encourage everyone to aggressively work to eliminate transition cow problems. Doing so will pay big dividends. It also makes farming a whole lot easier!

If you have purchased qualifying product in the past, Merck Animal Health has sent directly to you information on their rebate program which runs July 1, 15–March 31, 16. Significant rebates can be earned and they are created and sent directly to you. We are finding that manufacturers are making it much simpler to qualify and receive rebates on common products.