



by Steve Martin

# Transition success: formulating, working, hoping

THE truth is, it's hard to get over a bad start. Nowhere is this old adage more applicable than the few weeks of transition for a dairy cow. During pre- and post-calving weeks we attempt to apply every ounce of nutritional science and good cow-sense that we can muster.

The transition part of dairy management is probably the area where we need to work hardest on teamwork. Members of this team include dairy management, maternity area and fresh pen technicians, the herd health veterinarian, the nutritionist, and the feeding manager. That's a lot of people, but it takes them all to achieve success.

Getting there starts with a well formulated diet that is implemented properly and fed to cows that are grouped correctly, housed comfortably, handled carefully, and assisted appropriately when needed. But we should always expect some problems to occur – and be ready to apply correct health intervention.

There are no perfect dairy setups where concrete and steel are designed for the absolute best needs of cows. We have to start over at every location. There are often facility shortcomings that must be overcome. There are numerous arrangements, though, that can become cow-centric and work just fine.

## Many setups can work

We have all been to a dairy that has a terrible facility for handling close up, maternity and fresh cows, yet the cows transition just fine. There is a lesson there. Yes, do your best to build it right the first time and make needed adjustments where possible, but there are a variety of setups that can be successful.

Most of the failures that cause animals to leave the herd as fresh cows are metabolic in nature. These are things that are greater risks to highly “tuned-up” dairy animals, but not so much to beef cows. The metabolic engine that exists in the dairy animal is simply more complex and at a higher risk. Thus, we have our work cut out for us.

This topic can and has been the subject of complete volumes of text books. My goal here is to offer just a couple of ideas that might be helpful in your operation. There is no one-way to do the task of transitioning cows “by the book.” The best way is to make a plan based on good science and cow sense, and then adjust as needed to achieve success.

One question we often face in the field is deciding between housing mature cows and first lactation animals together or separately, and do they need different rations? The first question is easier than the second.

If at all possible, having separate heifer versus cow close up pens is

usually best. While being careful not to overcrowd either group, having heifers with only other heifers will be a positive. Both groups should be kept at under 80 percent of pen and feeding capacity.

The ration question is not as easy. The obvious difference in a close up heifer compared to a close up cow ration would be related to managing milk fever risk in fresh cows. My career has pretty much mimicked the era in which successful prevention

watched at your farm? Many dairy producers have found that weekly testing for urine pH when DCAD rations are fed is a good idea. But what about more basic information like intakes and days in close up?

Don't end up having an Excel spreadsheet on urine pH and even NEFAs or fresh cow BHBAs, but forget to have a weekly check for close up intake. And be sure that animals are in that pen and on that diet for the prescribed time. On-farm soft-

through calving and early lactation.

Much of the nutritional effort that goes into close up and fresh cow diets has to do with minerals and vitamins, but don't forget about energy and protein! Building diets to curb ketosis has been successful in recent years. Research supporting the correct levels of energy for both sides of calving is available to see which combination of approaches best fits an individual farm.

## Target ketosis with energy

Most ketosis efforts are found on the energy side of the equation. Early milk production and immunity, however, have found support on the nitrogen side of the diet. Feeding for higher levels of metabolizable protein and even specific amino acids have resulted in higher first milks and fewer post-calving issues. In the old days we just added a little extra crude protein to a close up diet. Now we have some specific nutrient goals to formulate for and be sure to meet.

After using the best pen movement, grouping, timing, and nutritional approach for a particular situation, it is time to use a few metrics to help evaluate success. Whatever you decide to measure needs to be completed by lactation, or at least calculated for heifers versus cows. Set goals for them and evaluate as you go.

First among these would be tracking the number of days in the close up pen. Many problems find their start in either too many or not enough days on the close up diet. Setting goals for, and then tracking, fresh events like retained placentas, metritis, milk fever, gut issues, ketosis, etc. will best tell the story of how your animals are transitioning.

## Count your “failures”

A broader metric would be how many animals leave the herd at less than 30 days in milk. I call these fresh cows failures or “fresh and gones”. No matter whether you sell an animal in the first 30 days or if she dies, it is a failure. Keeping track of these on a monthly basis is probably the best gauge of your transition program success.

The topic of this month's column could be a five-part series and still not cover details completely. The main point I want to make is that picking the best plan for a particular dairy, implementing it, and then evaluating it is the goal. By working with the professionals that serve as advisors for your farm, as well as with your key employees, a solid plan can be formulated, worked through, and then evaluated.

While nutrition is only one part of this plan, we are given an advantage by having specific guidelines about how to build diets that surround calving. Utilizing this information, along with good cow-side techniques, will insure that you are feeding transition cows to most positively impact the bottom line. **WEST**



of milk fever has been a reality. By managing the dietary cation-anion difference (DCAD) of close up diets, along with a few other details, milk fever has been reduced to less than five percent in most herds.

Do the dietary manipulations that make this possible need to be applied to the pre-calving heifer? Well, it depends who you ask!

## Heifers do risk milk fever

We know for sure that fresh heifers have significantly less risk of low blood calcium than older cows. But it has also been demonstrated that first time lactators do have a risk of sub-clinical milk fever, and at some cost to their early lactation health.

Suffice it to say that there are pluses and minuses to having cows and heifers on the same close up diet. An individual dairy's decision could be related to sizes of mixer loads, pen groupings, dietary potassium levels, etc. Using all of the tools available, make the best decision for that herd and measure the success.

What about the different tools for monitoring transition success? How many of these are being closely

ware tools can help you track both.

Experts will tell you that the perfect amount of time on a close up diet is 21 days. This rule of thumb has its roots in the amount of time needed to safely allow DCAD diets to offer sufficient calcium control post-freshening. Does that same period length make sense for heifers that are not on a DCAD ration?

Although there is likely not a perfect answer for this, it has been demonstrated that moving a close up cow to a new pen less than 14 days before calving puts her at significant health risk. Ration changes and socialization upheavals before calving are to be avoided if at all possible.

Assuming that you have a strong nutritional plan that has the correct DCAD approach and is also balanced for adequate trace minerals, vitamins and other nutrients, what about the people side of the equation?

Many of the pitfalls for fresh cows have a tie to immunity at their base. We know that stress in cows hurts immunity. Maternity protocols that focus on minimizing cow stress will allow a correctly formulated diet to support the cow's metabolic needs