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NEWSLETTER

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USE PARTIAL DCAD TO GET HER OFF TO A GOOD START

In the Southeastern U.S., hay-crop forages are typically high in potassium. And that can make the transition period more challenging for dairy cows. That's exactly the problem that Vale, North Carolina dairy producer Andrew Lail was facing.

In early 2015, up to one-third of the cows that calved at Lail's 225-cow Holstein dairy were experiencing symptoms of hypocalcemia – both clinical milk fevers and subclinical signs.

"There were a few milk fevers, but the biggest issue was way too many retained placentas and too much metritis," explains nutritionist, Jim Howard of Star Milling. "Andrew wanted to find a solution. He didn't like having to treat so many cows." He wanted to provide a smoother transition for his cows to get them off to a better start.

Lail's dry-cow program was simple. Far-off dry cows graze until 3 weeks before calving. The close-up cows are moved into a separate pen where they receive the lactating TMR mixed with some dry cow heifer feed. They also receive free-choice oat hay. Despite their efforts, Lail was not getting the results he wanted. And with a small, already stretched-for-time staff, any solution had to be easily manageable.

Lail called in his veterinarian Greg Whitner to help. Andrew's veterinarian explained that DCAD was the solution his transition cows needed, says Howard. But Lail was concerned about the amount of management time required to do it right. Using pH test strips to determine the urine pH is labor-intensive and he didn't feel that he and his small staff had the extra time to commit to it.

If DCAD was the answer, then Howard knew he needed to learn more in order to help his clients utilize it in their small herds. He contacted Terry Creel, Dairy Nutrition Plus product line sales manager for help in finding a solution. Creel explained that partial DCAD is a phased-in approach to adjusting the dietary ratios of sodium, potassium, chloride, and sulfate in the pre-fresh diet. With partial DCAD, less anionic supplement is fed therefore less monitoring is needed. But the cows still benefit from a noticeable reduction in milk fever and other problems associated with hypocalcemia.

Howard was intrigued. He agreed to bring the idea to his client if it met two conditions: 1. It had to work. 2. It couldn't be labor intensive to implement.

Lail, Howard and Whitner worked with Dr. Tim Brown, SoyChlor's on-staff nutritionist, to give partial DCAD a try.

Brown explained that partial DCAD is a lot like learning to ride a bike with training wheels. You get the benefit of riding the bike, but the training wheels help prevent you from crashing. With partial DCAD you feed less anionic supplement than with full DCAD, but it is still enough to deliver results – to minimize the risk for cows of experiencing hypocalcemia.

In addition management requirements with partial DCAD are less stringent. There is less risk of overfeeding the anionic supplement, because the DCAD is calculated at a more moderate level. Urine pH testing is still a good idea, but not nearly as intensive as with a full DCAD program. The other benefit, says Brown, it gives your staff time to learn the ropes with partial DCAD. Then, if the dairy decides to step up to a full DCAD

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NEW SOYCHLOR, SOYPLUS PRODUCT PACKAGING UNVEILED

Redesigned packaging part of Dairy Nutrition Plus branding

With the recent introduction of the Dairy Nutrition Plus[™] family of quality products, West Central[®] Cooperative continues to elevate its brand presence with new product packaging for SoyChlor[®], SoyPlus[®] and PasturChlor[®].

"The redesigned packaging is an extension of our new brand look, visually conveying the premium quality and consistency our products are renowned for," explained Mark Cullen, executive vice president of animal nutrition.

While the packaging has changed, the product formulas and stringent production standards remain the same. "As always, our products continue to provide proven results in bypass protein and DCAD management, but Dairy Nutrition Plus goes beyond the bag to offer more to customers. From access to the knowledge of industry experts to supply chain reliability and tools that improve efficiency for our customers, we continue to innovate to add value for feed mills, nutritionists and producers," Cullen added.

Incorporating the new product logos, The redesigned 50 pound SoyChlor, SoyPlus and PasturChlor bags and 2,000 pound SoyChlor totes create a cohesive look under the Dairy Nutrition Plus parent brand. The innovative new look will distinguish the Dairy Nutrition Plus products and ensure they are easily recognizable in the competitive market.

The new package design will be implemented as current inventory is sold. West Central customers can expect to begin receiving product with the updated packaging in the coming weeks.



GET HER OFF TO A GOOD START

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program, the transition is easier because the staff already has the skills and the confidence it needs to implement it.

"The goal was to make the program simple but still yield healthier cows," says Howard. They started with 2 pounds of SoyChlor top dressed to 35 pounds of milking cow TMR for each pre-fresh cow. The Soy-Chlor is hand mixed in for each cow. At 225 cows the herd is not large enough to mix a separate TMR for the few cows in the close-up pen. That's why Lail hand-mixes the SoyChlor in for close-up cows.

After starting the partial DCAD program they urine tested a few cows using pH test strips. The pH was running in the mid-sevens – a little high for their goal of 6.0 - 7.0. They bumped up the amount of SoyChlor to 2.5 pounds per cow per day with their TMR and that seems to have been the solution. (Sometimes it takes more incremental adjustments to find the right amount for a herd.)

Since starting the partial DCAD using SoyChlor, Lail rarely has had to treat a cow for milk fever. In addition, the incidence of retained placenta is way down and metritis seems to be a thing of the past.

"To me the partial DCAD program has been a success," says Howard. "Andrew no longer routinely treats cows for metritis." His transition cows now have a more problem free, and healthier transition into lactation. And all of this was accomplished without a lot of added labor.

"Not only did SoyChlor deliver the results we were looking for," says Howard. The Dairy Nutrition Plus team took the time to understand our goals and showed us how to make it happen within our parameters.

8.0+	Too High: This is "normal" for cow urine, and regardless of how much anionic supplement you are feeding, the cows are not acidified. They are at risk of milk fever.
7.0–8.0	Still a Little High: Some milk fevers will be prevented, but many more benefits will be obtained with slightly more metabolic acidification.
6.0–7.0	Ideal Range for Partial DCAD: Many noticeable benefits will be realized, but cows are not in danger of over-acidification.
5.5–6.0	This Range Indicates Full DCAD: Maximum benefits will be derived, but urine pH needs to be monitored closely to make sure cows don't become overly-acidified (pH less than 5.5).

HAPPENINGS: BRANDON FINKE NAMED REGIONAL MANAGER FOR WEST CENTRAL

Finke to represent Dairy Nutrition Plus' Northeast region

West Central® Cooperative welcomes Brandon Finke as the Northeast Regional Manager for the Dairy Nutrition Plus™ family of quality products. Prior to joining the Dairy Nutrition Plus team, Finke served as an area sales manager for Eldon C. Stutsman, Inc, a position that elevated his experience in customer service, operations, logistics and feed ingredient sales.

At West Central, Finke will provide support for current SoyPlus® and SoyChlor® users and develop new markets for the Dairy Nutrition Plus products. West Central is preparing to transition regional customers to Finke as current regional manager, Roger Campbell, nears retirement.

Familiar with West Central's exceptional reputation for producing consistent and quality value-added products, Finke was excited to join a well-respected team. "West Central's products have been proven and they demonstrate that in the end, they want to do what is best for the dairy producer," Finke said. "As a former dairyman from Wisconsin myself, that hit home for me."

"Brandon's extensive knowledge of the dairy industry and understanding of the needs of today's dairy producers make him an exceptional addition to our sales staff," said Mark Cullen, executive vice president of animal nutrition at West Central. "We are excited to add a sales manager of Brandon's caliber to the Dairy Nutrition Plus team."

Finke and the entire Dairy Nutrition Plus team will be at World Dairy Expo in Madison, Wisconsin Sept. 29 through Oct. 3. Visit booths 1911 and 1912 to meet the team.

FROM THE MATERNITY PEN

Create a Comfortable Environment for Transition Cows

We all know that a successful transition period sets up cows for a successful lactation. So why then do dry-cows and close-up cows often get taken for granted?

It's because they are not producing milk, explains Ricardo Chebel, associate professor, Department of Large Animal Clinical Sciences, University of Florida. That's why we often see overstocked pens, insufficient water and feed availability and no heat-stress abatement. Each of these factors can stress cows at a time when we should strive to provide an environment that is free of stress.

A lot of research has been conducted in this area the last few years. If you want to get cows off to a healthy and productive start, Chebel recommends following the current recommendations to provide an optimal environment for parturient cows and heifers. Doing so can pay in healthier more productive cows.

Feed bunk space

- Provide 27" to 36" per cow.
- Aim for stocking density of 100% of headlocks on the day you regroup cows.
- ** If heifers and cows are in the same pen, stocking density should only be 80% of headlocks.
- The bunk should be a smooth, easy to clean surface.
- Remove stale food daily.
- Aim for ~ 3% leftover.

Water availability

- Provide 3" to 5" trough space per cow.
- Maintain 1 water trough per 20 cows.
- Keep the water troughs clean.

Utilize a close-up diet for the last 21 days prepartum

Grouping strategy

- House first-calf heifers separate from cows. Failure to do so results in a loss of 3.5 lbs of milk per day for her first lactation.
- Minimize diet changes during this time.

Comfort

- Use shade, sprinklers or fans to reduce heat stress. Doing so can yield an increase of 2 to 6 pounds of milk per day in the next lactation.
- Provide comfortable, clean dry stalls.

You can learn more about this topic by visiting:
<http://dairy.ifas.ufl.edu/dpc/2015/Chebel.pdf>



BEYOND BYPASS

Tailor Ration Starch to Lactation Cycle for Better Results

Not all cows derive the same benefit from starch. Concentration and ruminal fermentability of starch are highly variable among rations fed to lactating cows, and that has a great effect on feed intake, energy partitioning, milk production and the health of cows.

We now know that optimal starch concentration and the starch sources fed to lactating cows should change based on the physiological state of the cows throughout lactation, explains Mike Allen, professor of dairy cattle nutrition at Michigan State University. When optimizing starch in the diet one must also watch and monitor cows' response and use that information to further tweak rations. Here are the current recommendations:

Fresh Cow Ration (parturition to ~ 10-14 DIM)

Highly fermentable starch sources, such as wheat, barley, low-density steam-flaked corn and aged high moisture corn and corn silage, should be limited to allow for greater starch concentrations and glucose precursors with less risk of acidosis or displaced abomasum. Supplement corn silage based diets with dry ground corn. Aim for a total starch concentration of up to 28% (DM basis). Forage NDF concentration should be greater than 23%. The use of non-forage fiber sources should be limited to diluting starch concentration if necessary.

Early to Mid-Lactation Ration

These cows have high glucose requirements for milk production and partition relatively little energy to body reserves. Starch concentration should range from 25% to 30% (DM basis). Optimum concentration will depend on competition for bunk space, forage/effective NDF concentration and starch fermentability. Higher starch, lower fill rations generally increase peak milk and decrease body condition loss in early lactation.

Maintenance Ration (>150 DIM and BCS of 3)

Once cows replenish body condition lost in early lactation they should be switched to a maintenance diet. The optimal concentration of starch is about 18 to 22% (DM basis). Starch content also will be dependent upon the milk yield of the herd and physical groups. Highly-fermentable starch sources, such as high-moisture corn, bakery waste, aged corn silage should be avoided. Dried ground corn is an excellent starch source because of its lower ruminal digestibility and high total tract digestibility.

This article was adapted from Mike Allen's paper "Starch Availability, Measurement and Implications for Ration Formulation." You can read it in its entirety at:

https://ecommons.cornell.edu/bitstream/handle/1813/39199/1Allen_manu.pdf?sequence=2&isAllowed=y

CONSULTANTS CORNER

Conduct a TMR Checkup



BY WILLIAM STONE

TECHNICAL SERVICES

DIRECTOR, DIAMOND V

AUBURN, NY

Now that corn silage harvest is done, it's time to give your TMR a checkup. If you want to get the most out of your feedstuffs, you need to audit your TMR – the mixer, the process, and at the bunk. That's why I recommend a TMR Audit®.

Conducting a TMR audit can help minimize the amount of variation between the formulated ration and the one consumed. The Diamond V Technical Services Team has conducted thousands of TMR audits on dairies. Here is what we recommend:

- 1. Check the TMR mixer for wear.** Examine the kicker plate for wear. Look for worn augers and dull or missing knives. All can lead to inadequate mixing.
- 2. Mix time after the last ingredient.** Always use a timer. Most mixers need about 4 +/- 1 minutes after all ingredients have been added to properly mix a load of feed when run at 1,700 to 2,000 rpm engine speed.
- 3. Load size too big.** Feed particles mix best when they are falling together at the same time. When mixing a full load the feed should be actively moving in all visible areas of the load. Feed should not be spilling out.
- 4. Hay restrictor plate setting in vertical mixers.** If the mixer is not used to process forage, the restrictor plates can be set all the way out on most TMR mixers.
- 5. Level ground.** Always mix on level ground. An unlevel mixer can cause feedstuffs to migrate to a region of the mixer instead of being mixed uniformly throughout.
- 6. Loading sequence.** Generally lower-density and large particle feeds such as hay and straw are loaded first. Then dry grains, wet by-products, haylage, corn silage and liquids are added. (With some vertical mixers, it works best to add liquids after the grains have been added, but before the forage.) Regardless of when they are added, liquids should be dispersed over the central half to two-thirds of the mixer when added.
- 7. Loading position.** Always target the loader bucket for the center of the feed mixer. This assists in uniform feed distribution throughout the mixer.
- 8. Hay/straw quality at processing.** Alfalfa hay should be processed to less than ~3" and straw should be less than 2" to minimize sorting. Processing prior to loading into the TMR ensures proper particle size and reduces equipment wear.
- 9. Use a silage defacer to minimize variation.** When using the defacer start from the bottom and work your way up to remove feed across the face. Push feed into a center pile and mix with a loader bucket before loading into the TMR wagon.
- 10. Vertical mixer auger speeds.** Feed particles mix best when they are falling or actively moving. If the vertical augers are moving too slowly the feed may not mix properly. As a general rule, TMR consistency is enhanced when auger speed is increased.
- 11. Check results at the bunk.** After the feed is delivered, immediately collect 10 TMR samples along the feedbunk, about 1.5 quarts in volume and moderately packed into a Ziploc bag. Use the Penn State Particle Separator (PSPS two sieve and pan) to check particle size distribution. When graphed, the lines formed by connecting the percent retained on the top, middle and pan of the PSPS should be nearly straight, with coefficients of variation of less than 2.5% for the middle screen and pan.

More information on the topic can be found:
<http://dairy.ifas.ufl.edu/rms/2015/12.%20Stone.pdf>

