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DAIRY PIPELINE

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"With feed costs now greater than $5 per cow per day, it is an excellent time to determine your feed efficiency."

Photo courtesy of Flickr.com

TEMPERATURES ARE RISING — MAKE SURE YOUR SCC DOESN'T FOLLOW

We are coming into the summer months when the incidence of mastitis and the bulk tank somatic cell count tend to rise. These are due, in part, to the additional stressors placed on the cows. However, there are steps we can take to reduce the impact these summer months have on milk quality. Of paramount importance is maintaining a clean and dry environment for all cows. New mastitis infections predominantly occur in the early dry period, around the time of calving and into early lactation. For this reason, we cannot forget about dry cow housing or the calving pens. Freestalls should be raked out at each milking, calving pens should be cleaned out between each birth, and loose housing should be maintained on a daily basis. Additionally, animals on pasture must be fenced out of bodies of water. For those producers using sawdust as a bedding material, consider purchasing kiln-dried sawdust and adding hydrated lime as a conditioner. The general rule of thumb for the application of lime is 2 lbs/stall/day or 2 parts bedding to 1 part lime for loose housing. Skimping on the application rate can render the conditioner ineffective. Therefore, it is important to apply in adequate quantity and frequency to maximize effectiveness.

Aside from bedding, we also have tools at our disposal that help to improve milk quality. Fly control will help reduce the spread of certain mastitis pathogens, including *Arcanobacterium pyogenes*, also known as 'Summer Mastitis'. This type of mastitis is very difficult, if not impossible, to treat and therefore, much easier to prevent. Secondly, the use of an internal teat sealant during the dry period has been shown in research studies to reduce new mastitis infections seen at calving. Although this may not be necessary in all herds, it is something to consider if your herd historically has an environmental mastitis problem at calving.

Lastly, the J5 vaccines help to reduce the severity of clinical coliform mastitis. The summer months are known to be particularly problematic when it comes to coliform infections. Therefore, some veterinarians have started recommending whole-herd vaccinations prior to the heat of the summer. If your herd has had problems with coliform mastitis during the summer in the past, discuss this option with your veterinarian.

The summer months continue to bring about concern related to milk quality. However, in most instances it is easier to prevent mastitis than it is to treat. Therefore, our focus needs to turn to the management tools we have at our disposal and maintaining a clean, cool and comfortable environment for our cows to live in.

—Christina Petersson-Wolfe
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FEED EFFICIENCY SHOULD BE MONITORED

One way to define feed efficiency is to express milk produced per unit of dry matter consumed. This requires that dry matter intake be determined by knowing what was offered and how much was refused. On-farm dry matter determination is helpful when doing this, however, estimates can be made from lab TMR dry matter results. For those on our "P Project" we report an estimated dry matter intake for your herd based on body weight and milk produced. You can compare this to your estimates. Also, milk should be expressed on a 3.5% fat basis. The formula for 3.5%

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Upcoming Activities

May 13: Franklin Co. 4-H Dairy Club meeting

June 7: 4-H Youth Dairy Heifer Show, 12 noon at Franklin Rec Park

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

"The high value of basic grain commodities has placed even more emphasis on the value of nutrients contained in forages."

fat milk is (.432 times milk lbs.) plus (16.23 times milk fat lbs.). A herd producing 70 lbs. of 3.8% fat milk (70 X .038 = 2.66 lbs. fat) would be producing 73.4 lbs. of 3.5% fat corrected milk (FCM = (.432 * 70) + (16.23 * 2.66)). If this herd consumes 50 lbs. of dry matter per day the feed efficiency is 1.47 lbs. milk per lb. dry matter (73.4/50). Most Virginia herds average 150—200 days in milk and should expect efficiencies of 1.5 to 1.6. A large number of late lactation cows with average days in milk of the herd at greater than 250 might drop efficiency to 1.4. Early lactation cows or groups might have a feed efficiency of 1.8 or greater due to use of body stores to produce milk in early lactation. With feed costs now greater than $5 per cow per day, it is an excellent time to determine your feed efficiency. Make changes as needed to produce more milk per unit of feed consumed. This makes sense both economically and environmentally.

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The Value of Spring Forages

Feed prices have been and will be a major concern for livestock producers throughout 2008. USDA reported the milk-feed price ratio for March 2008 to be 2.05, continuing a slide started in November of 2007 due to climbing feed prices and declining milk values. The ratio represents the pounds of 16% mixed dairy feed equal in value to one pound of milk and is an indicator of operating margins.

The high value of basic grain commodities has placed even more emphasis on the value of nutrients contained in forages. A survey of prices paid in the Shenandoah Valley area found values to be $244 per ton for corn and $396 for soybean meal. Utilizing the Feed Value Spreadsheet available through VT Dairy, these prices results in a value of $3.92 and $3.09 per percent for crude protein and TDN respectively. This spreadsheet also calculates the value of nutrients contained in common dairy feeds and assigns a value to the feed. For example, it calculates the value of rye silage harvested in the boot stage (assumes 33% dry matter, 62.6% TDN and 21% crude protein) to be $91 per ton. This is not to suggest that farmers should go pay $91/ton for rye silage, but that if they had to replace the nutrients contained in that silage they would have to spend $91 in alternative feedstuffs.

The spreadsheet also allows users to determine the feed value lost with declining forage quality. For example, grass hay at 16% protein is worth $24/ton more than if the protein level declined to 10%. Likewise alfalfa values decline by around $26/ton when protein levels drop from 25% to 20% crude protein. For those with internet access, the Feed Value spreadsheet can be found at the VT Dairy Website by using the following link: http://www.vtdairy.dasc.vt.edu/nutrition_and_forage_quality.htm.

In summary, efforts made to harvest spring forages in a timely fashion can yield substantial gains in profitability under the current feed prices.

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For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

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