

Dairy Pipeline

Vol. 27, No. 2 March 2006

What's in you tank?

I'm regularly called to farms to help with somatic cell count and mastitis issues. This is generally a very challenging issue as there are so many factors that affect udder health. An effective, but under-utilized, tool for monitoring your herd's bacterial organism status is bulk milk tank testing. In this instance, I am referring to monthly bulk tank sampling to identify the predominant mastitis organisms in your herd. With a quick turnaround time and less cost than sampling individual cows, this provides a snapshot of what is going on in your herd.

By monitoring monthly, you can make your veterinarian or consultant's job easier. Are certain organisms predominant in the summer versus the winter? Have you switched from dry sawdust to green? Oak to Pine? Is your recycled sand clean enough? Are you dealing with Environmental Streps. or contagious organisms like Staph. Aureus, Strep. Ag. Or Mycoplasma? Have you switched teat dips? ***Somatic Cells Counts are a great starting point, but until you know what you are dealing with at a herd level, how do you know you are treating with the most effective antibiotic? By knowing which organisms you are dealing with, you can make better management decisions.***

Samples should be taken as aseptically as possible. Agitate the milk for at least 10 minutes and collect at least two ounces of milk from the top of the bulk tank using a sanitized dipper. Use either a flip top container, like those used for DHIA samples, or a Whirl-pak. Label and refrigerate samples IMMEDIATELY, then transport to the lab on ice.

When troubleshooting a current problem, multiple samples are needed and it is recommended that you take three or four samples from different pickups. Freeze the samples until they can be delivered to the lab. One thing to note—somatic cell counts can not be obtained on samples that have been frozen. It is also best to use fresh rather than frozen samples when testing for mycoplasma. Samples can be sent to your Virginia Department of Agriculture State Lab or—in some cases—your veterinarian for analysis. Cost usually runs \$6 – 10 per sample to test for basic mastitis organisms.

Bulk tank sample analysis should not be used to make treatment decisions. ***Results from the bulk tank samples should be used along with your monthly DHIA***

Cell Count data to identify which individual or groups of cows to sample so you can make better choices on which treatment to use or which management practices need to be modified. With the volatility in the price of milk, can you afford NOT to monitor your bulk tank to stay ahead of problems?

--Sue Puffenbarger

Dairy Science Extension Agent

Franklin County

(540) 483-5161 email: smp@vt.edu

February 2006 bull proofs are out

Genetic evaluations are published four times a year – and have been regularly updated by the USDA for many years. New proofs are routine. It is easy for producers to become complacent about sire selection, but standards for selection need to be adjusted from time to time. ***Genetic progress takes place. New bulls with better proofs replace older bulls in the active AI lineup.*** The simple table below shows some useful guidelines for evaluating a proof for Net Merit. The very best 5% of Holstein bulls exceed the \$464 Net Merit rating for the 95th percentile. For Jerseys, that mark is \$433. The top 20% of bulls exceed \$373 and \$355 for Holsteins and Jerseys, respectively. ***The top 20% of active AI bulls includes about 120 Holsteins and 15 Jerseys, so there are plenty of opportunities for selection for other traits among the top group in both breeds.***

Net Merit required for different rankings in Holsteins and Jerseys				
Breed	95 th percentile	90 th percentile	80 th percentile	70 th percentile
Holstein	464	425	373	331
Jersey	433	409	355	323

USDA made changes to the evaluation system for daughter pregnancy rate (DPR) for the February 2006 proofs. Pregnancy ratings are calculated on individual cows once they are 130 days into first lactation, which is later than for milk records. Some young bulls can have milk proofs based on short daughter records, but no DPR based on daughter information. Formerly, pedigree data was used for the DPR rating for these bulls, but now, USDA predicts DPR using production and somatic cell score (both negatively related to DPR) and productive life (positively related to DPR) as well as pedigree.

Effects on “domestic” bull proofs were small, but the change did reduce DPR ratings, on average by 0.4, for the top 100 international bulls. The procedure used makes DPR more useful as reliability is increased, but the method used is temporary, as more accurate predictions are under development for the future.

--Bennet Cassell

Extension Dairy Scientist,
Genetics & Management
(540) 231-4762 email: bcassell@vt.edu

Reducing phosphorus in dairy rations

We now have over 100 herds enrolled in our “Precision Phosphorus Feeding Incentive Program”. This is a program from the Dairy Science Department at Virginia Tech along with Virginia Cooperative Extension. Funding comes from USDA-Natural Resources Conservation Service (NRCS) and Virginia Department of Conservation and Recreation (DCR).

Testing of feeds for a group of 56 herds began in January. Results are just now becoming available and questions are being raised on how to reduce phosphorus levels in rations. ***If levels are excessive there are three basic ways to reduce amounts in rations. 1) Remove any inorganic supplemental sources including any phosphorus in a free choice mineral. 2) Feed more forage and less feeds such as whole cottonseeds, brewers grains, and distillers grains. 3) Use alternative feeds that are low in phosphorus.*** Feeds that have low levels of phosphorus include apple pomace (.17%), citrus pulp (.12%), cottonseed hulls (.12%), molasses (.10%), soybean hulls (.17%), and sugar beet pulp (.09%).

We recommend that you consult with your nutritionist before making changes and calculate the relative cost of changing a practice. Feeding more forage is an option only if you have adequate amounts and quality to support your level of milk production. Future considerations should be given to cropping and feed storage to ensure excellent quality forages. Timing of harvest, speed of ensiling, and proper storage conditions are all important considerations. In addition, feed bunk management is important to ensure fresh feed is presented to cows on a regular basis and feeds do not heat before consumption. Virginia Cooperative Extension Dairy Agents and Specialists will be glad to visit with any farm needing consultation.

--Charles C. Stallings

Extension Dairy Scientist,
Nutrition & Forage Quality
(540) 231-3066 email: ccstallin@vt.edu

Upcoming Activities

Advanced Compost School March 8-9
Rockingham County
For more information visit www.vtdairy.dasc.vt.edu
or contact Maria Ignosh at (540) 564-3080

Innovative Nutrient Solution Expo & State Dairy Conservation Field Day April 5
Cub Run Farm
Rockingham County
For more information, visit www.vtdairy.dasc.vt.edu
or contact Charlie Stallings at
(540) 231-3066; cstallin@vt.edu

Little All-American Dairy Show April 8
Virginia Tech
For more information, contact Dave Winston at
(540) 231-5693; dwinston@vt.edu

Dairy Club Invitational Youth Dairy Judging Contest April 29
Virginia Tech
For more information, contact Dave Winston at
(540) 231-5693; dwinston@vt.edu

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.


Bennet G. Cassell
Dairy Extension Coordinator
and Extension Dairy Scientist,
Genetics & Management

www.ext.vt.edu

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Mark A. McCann, Interim Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Clinton V. Turner, Interim Administrator, 1890 Extension Program, Virginia State, Petersburg.