

DAIRY PIPELINE

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Department of Dairy Science

Blacksburg, VA 24061

540/231-4762 Fax: 540/231-5014

www.vtdairy.dasc.vt.edu



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“Research and practical experience has shown that overconditioned cows at calving are more prone to milk fever, displaced abomasums and ketosis.”

Photos courtesy of Flickr

TMR ANALYSIS CAN BE A CHECK TO PROPER RATION SUPPLEMENTATION

Typically a nutritionist wants to sample individual ration ingredients for lab analysis. They then will put together a ration with these results, though many times they will not actually sample the TMR or final product.

One reason for this is difficulty in getting a proper mixture of the ingredients. However, if careful sampling protocol is followed a meaningful lab analysis can be obtained. A feedstuff sampling guide can be found under “Tools” at www.vtdairy.dasc.vt.edu.

We have been sampling TMR’s of some cooperator heads for the last three years. Some are feeding only one ration and a few are grouping by production. These TMR’s averaged 47.2% dry matter. Protein averaged 16.9% of the dry matter and TDN 73%. Starch averaged 24.3% with a range of 20.3 to 27.2% and non fiber carbohydrates 38.7% with a range of 32.1 to 43.9%. Acid detergent fiber averaged 21.6% and neutral detergent fiber 34.8%. The macromineral results averaged .87% calcium, .39% phos-

phorus, .34% magnesium, 1.47% potassium, and .41% sodium. The magnesium, potassium, and sodium amounts are similar to what is recommended for hot weather feeding and are greater than required during cooler times of the year. The level of phosphorus indicates effort by these herds to reduce the amount being fed although still above the requirement. The micro minerals averaged 85 PPM manganese, 103 PPM zinc, and 26 PPM copper. All are well over the required amounts for lactating cows indicating some over supplementation. This is probably an attempt to boost the immune system which is a problem with early lactation cows.

These numbers are being provided to give a benchmark for comparison. Check your calculated ration nutrients against these numbers. If you are interested it is possible to sample your TMR and compare.

—Charlie Stallings
Extension Dairy Scientist,
Nutrition & Forage Quality
(540) 231-3066; cstallin@vt.edu

ARE YOUR DRY COWS READY FOR THE NEXT LACTATION?

This summer has been an unusual one in that we have had plenty of rain resulting in growth of lush green pastures. While this environment is great for dry cows, it provides far more energy and protein than needed resulting in the possibility of increased fattening of dry cows, particularly those with dry periods exceeding 60 days. Research and practical experience has shown that overconditioned cows at calving are more prone to milk fever, displaced abomasums and ketosis. Dairy producers may want to consider several options to prevent cows from overfattening.

- ◆ Ungrouped milking herds tend to overcondition late lactation cows, particularly after many producers ceased using BST. Now is the time to establish a low group TMR with reduced concentrations of energy and protein. Not only will this reduce overconditioning, it will reduce feed costs!
- ◆ Restrict access to lush pasture for dry cows by controlling grazing pressure to reduce availability of pasture nutrients.
- ◆ In most cases dry cows require little concentrate supplementation (less than 3 lb. per day). Feeding concentrates is frequently used to encourage cows to come up so that they can be observed. In such cases make sure that there is plenty of bunk space available so that each cow has ample opportunity to consume the concentrates (>30 in. /cow).
- ◆ If dry cows average a condition score of 3.5, then consider use of a confinement feeding system where the energy intake can be controlled more closely.

(Continued...)

Upcoming Activities

Dairy risk management workshop series

—10am to 12pm (need to attend all sessions) —Multiple locations Wytheville, Rocky Mount, Weyers Cave, Culpeper — **Oct. 15, Oct. 22, Oct. 29, Nov. 5, Nov. 12, and Nov. 19** Contact Beverly Cox at (540) 483-5161 or visit <http://www.vdacs.virginia.gov/news/workshop.shtml> for more information.

Oct 20—“Profitable Grass Dairies: the past, the present, and the future”, 9:30 am – 2:00pm, Farm Credit Office, Harrisonburg. Lunch will be provided. Register by Oct 6 at (540) 245-5750.

Oct 21—Water Quality as a Grass Roots Farm & Community Effort—“Working together to Protect Virginia’s Natural Resources with Practical solutions and Sound Conservation Practices”—9:30 am –2:00 pm. Lunch provided, but registration is required. Registration deadline is Oct 19. Keezletown United Methodist Fellowship Hall, Keezletown.. For more information contact Eric Bendfeldt at (540) 432-6029 or John Welsh at (540) 564-3080. To register call (540) 432-6029.

Nov 4 -- Hoof Health Workshop Rocky Mount, Location and time TBA

Nov 10—Feed Management Workshop, Penn State—Training for consultants interested in Feed Management Planner Certification. **This workshop is targeted for those who are NOT yet certified.** contact Virginia Ishler vishler@gmail.com or (814) 863-3912.

Nov 11-12 Penn State Dairy Cattle Nutrition Workshop, Grantville, PA for agenda and registration information see <http://www.das.psu.edu/research-extension/dairy/nutrition/continuing-education/workshop>

Research at Illinois has shown that a single dry cow TMR can be successfully implemented. Guidelines for such systems include:

- ◆ Formulate dry cow TMR’S using about 1/3 chopped straw, 1/3 corn silage and 1/3 from some other hay, silage and concentrate.
- ◆ Dry matter intake goals are 25 to 27 lb. / cow / day.
- ◆ Energy density of .59 to .63 Mcal NE/lb. of dry matter
- ◆ Protein content of 12 – 15% providing about 1,000g/day of metabolizable protein.
- ◆ Starch content of 12 – 16%
- ◆ NDF from forage – 40 to 50% of dry matter intake.

- ◆ Total ration DM content - <55%. If it is higher, cows will tend to sort out the more fibrous parts of the diet.
- ◆ Mineral supplementation - .4% Mg, .35 - .40% sulfur, .27 - .35% P, .5 - .6% Ca and K as low as is practically possible. Provide at least 1,000 IU of Vitamin E daily.

A goal of all dry cow feeding systems is consistency. Make sure that straw is chopped to a length of ~2” and that the TMR is thoroughly mixed. Make sure that bunk space is adequate and that feed is available for 20 h/day. Avoid the use of moldy hay or straw or small grain silages harvested in the “boot” stage. Hay crops heavily contaminated with soil must be avoided as the iron in soil will interfere with absorption of other minerals and predispose cows to metabolic disease.

—Bob James, Extension Dairy Scientist, Dairy Nutrition (540) 231-4770; jamesre@vt.edu

Managing Milk Quality (MMQ) Conferences: Bacterial counts in milk

RSVP by Nov 2
Nov 9—noon-6:00pm—VT Dairy Center open house, lunch at 5:00pm **followed by the meeting** at the VT Vet School at 6:30

Nov 10—Abingdon, 4-H Center, 6:30pm

Nov 11—Rocky Mount, The Gereau Center, 6:30pm

Nov 16—Farmville, Extension Office, 6:30pm

Nov 17—Harrisonburg, Montezuma Hall, 10am

Nov 17—Weyers Cave, 1pm

Nov 18—Brandy Station, Fire Hall, 10am

For VT location and Abingdon locations, contact Chase Scott – (276)223-6040 or miscott1@vt.edu;

For Rocky Mount and Farmville locations, contact Beverly Cox – (540)483-5161 or bcox@vt.edu;

For Harrisonburg, Weyers Cave, and Brandy Station locations contact John Welsh – (540)564-3080 or jlwelsh@vt.edu

Virginia Forage and Grasslands Council (VFGC) Improved Corn Silage Management Conference

Dec 8—Mt. Crawford, VA. (Mrs. Rowe’s Country Buffet)
Dec 9—Rocky Mount, VA. (Franklin Center)
Dec10—Wytheville, VA. (Wytheville Meeting Center)

All VFGC conferences are from 9 to 3, with lunch provided. Registration at 8:30-
RSVP to Margaret Kenny at 434 292-5331

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.



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.

Bennet Cassell

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

www.ext.vt.edu

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