Virginia Cooperative Extension

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DAIRY PIPELINE

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Volume 28, No. 1 February 2007

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UNDERSTANDING MYCOPLASMA MASTITIS

Along with Staph. aureus and Strep. agalactiae, Mycoplasma species are also contagious mastitis organisms that can be passed from cow to cow at the time of milking.

Mycoplasma can be cultured from multiple body sites of both healthy and sick cattle including the udder, respiratory tract, reproductive tract and joints. In particular, *Mycoplasma bovis* is most commonly associated with bovine mastitis.

The classic symptoms involved with Mycoplasma mastitis include multiple guarters involved, dramatically decreased milk production, cows appear otherwise healthy but have severe mastitis, milk secretion has sandy or flaky sediments in watery or serous fluid. Bacteriologic culture of milk is required to diagnose Mycoplasma mastitis. The best way to do this is to culture suspect cows displaying the previously described symptoms. When a negative test result is obtained from an individual cow. this generally means the organism is not present. However, intermittent shedding of Mycoplasma has been reported and may lead to false negative results. Not all laboratories perform this type of culture because special techniques must be used to test for this organism.

Mycoplasma is most often associated with the introduction of new cattle to the herd and unfortunately no treatment is available. Therefore, in order to control this organism, a strict sampling procedure should be put in place prior to the purchase of animals. Bulk tank cultures from the herd of origin should be requested prior to the purchase of non-lactating animals or calves and individual SCC and milk cultures should be requested prior to the purchase of prior to the purchase of lactating animals.

Feeding waste milk to calves can also be a source of transmission. Aside from mastitis, *M. bovis* is also an important cause of respiratory disease in calves and feedlot cattle as well as ear infections in young calves and occasional abortions. Infected cows should be promptly culled to avoid spread within the herd. If this is not economically feasible, a strict segregation plan should be devised and followed.

Christina Petersson-Wolfe Extension Dairy Scientist, Milk Quality & Milking Management (540) 231-2160; <u>cspw@vt.edu</u>

ALTERNATIVES TO HIGH PRICED CORN

"(Iltimately the goal is not to reduce feed cost, but to optimize income over feed cost." Corn prices have soared this year to over \$4.50/bushel in Virginia. High corn prices combined with lower milk prices have caused dairy producers to evaluate alternatives to reduce purchased feed costs. Before making a hasty decision, carefully consider the consequences of substitutions made for corn. Ultimately the goal is not to reduce feed cost, but to optimize income over feed cost. If a substitution is made which saves \$.15/cow/day but milk flow drops by 5 lb./ cow/day then it's probably a poor decision as income will be reduced by more than \$.15/day!

Corn provides energy and minor amounts of minerals and protein. However, it's also an important source of starch. Rumen microorganisms need starch to grow and produce precursors of lactose or milk sugar. A deficiency of starch in the diet might mean slower rumen microbial growth which in turn may lower ration intake resulting in less milk.

Therefore, we need to locate suitable substitutes which provide some starch as well as high energy. Where to turn?

- Barley is slightly lower in starch and energy than corn, but higher in protein.
- Hominy feed is frequently substituted for corn. It's a byproduct of corn processing and has less starch and more fat which is highly available in the rumen. If used as a substitute for corn, maintain total dietary fat levels at 5% or less. Too much fat can impair rumen function and restrict dry matter intake.

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Upcoming Activities

Innovative Environmental **Technologies** Symposium-

Cost Effective Nutrient Solutions for Economic Viability, Optimum Agronomic Use, and the Future of Agriculture Registration: Free Thursday, Feb 22 8:00 a.m. - 4:00 p.m. **Rockingham County** Fairgrounds, Harrisonburg

Cow College Feb 26-Augusta Co./ **Christians** Creek Holsteins

Registration Contacts: Tina Horn at tihorn@vt.edu, 540-245-5750 or John Welsh at ilwelsh@vt.edu, 540-564-3080

Feb 27-Culpeper Co./ **Brandy Station Fire** Hall and Alvere Holsteins

Registration Contact: Carl Stafford at ccstaffo@vt.edu, 540-727-3435

Feb 28-Franklin **Co./VA-NC Select** Sires/Blackwater

Bend Dairy Farm Registration Contacts: Marilyn Clements at 540-483-5161 or Chase Scott at miscott1@vt.edu, 276-223-6040

www.vtdairy.dasc.vt.edu for more information.

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.

Cookie meal and bakery waste can be . good sources of highly available sugars and starches, but they are also high in fat.

In most cases, it's probably not wise to remove all corn grain from the diet, particularly if corn silage (another good source of starch) is of poor quality. Consider using one of the above products if they are priced lower than corn grain. In all cases make sure that corn and barley grain is finely ground which improves digestibility and utilization by the cow. It should be the consis-

YEAR END EVALUATION

Annual tax preparation time is near, motivating many businesses to make an evaluation of the previous year's performance. The schedule F review satisfies the government, but often does not provide individuals a good summary of the performance of their operation during the last calendar year.

Success is measured in many ways. For example, my version

of a successful milking is one in which no cow defecates in the parlor. It doesn't happen very often and the cost benefits of it are pretty darn negligible, but it sure makes me happy! Despite the fact that we are all motivated to milk cows for different reasons, no farm is able to perpetuate itself in an absence of money-which is why

the upcoming pro-

grams will be of in-

terest to the dairy

producer.

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The Dairy Management Institute is a 2

day program that offers an in-depth look

tency of powder or very fine grains. Late lactation cows, dry cows and older heifers (>12 months) can produce and grow satisfactorily with other energy sources substituted for corn grain in the diet. When substitutions are made, carefully monitor performance to assure that feed cost savings are greater than any reductions in income from milk sales.

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

at several financial measures of dairy farm profitability. Financial data derived from the Schedule F form, coupled with the milk check summary and some basic farm records are compiled and analyzed. Participants will receive their analysis along with group averages. All individual herd information will be confidential. Dairy Management Institute will be conducted during the months of February and March.

The Shenandoah Valley Grazing Dairy Group is presenting an informational meeting on Profit Drivers for Grass Based Dairy Farms on February 14th at Mrs. Rowes (formerly Evers) in Mt Crawford. Neil Lane, a representative with Intelact in Australia will discuss a similar program used in New Zealand to specifically analyze the profitability and efficiency of grazing dairies.

If you are interested in learning more about either of these educational opportunities, contact Tina Horn - VCE Augusta (540) 245-5750 or myself - VCE Rockingham (540) 564-3080.

> --John Welsh Extension Agent, Rockingham County (540) 564-3080; jlwelsh@vt.edu

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: <u>www.vtdairy.dasc.vt.edu</u>.

Bennt Cassell

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www.ext.vt.edu

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