

DAIRY PIPELINE

**Early Mastitis Detection.** Various studies have shown that there are significant economic benefits to early detection of intramammary infections. This year at the National Mastitis Council Annual Meeting there were three presentations on the use of the California Mastitis Test (CMT) for early detection of mastitis. In each of the three studies, the CMT was used within four days of calving. The incidence of positive (infected) quarters ranged from 10% to 60%. All infected quarters were sampled using aseptic techniques and cows in two trials were assigned to a treated (cephapirin sodium) or untreated group. Environmental pathogens made up the majority of the organisms found in culture. Results showed an improvement in cure rate and SCC for the treated group in both trials. The three studies concluded that the use of the CMT was beneficial to determining udder health status in early lactation. The CMT is a inexpensive and easy way to detect mastitis and it allows you to evaluate a cow's status prior to the first DHIA test and make treatment decisions sooner. This could provide direct economic benefits in the form of SCC premiums, decreased discard milk, and the prevention of the spread of a contagious organism to other cows. The CMT combined with your monthly DHIA data are two important tools for your use in combating mastitis and increased SCC.

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**Timed AI Programs Result in More Pregnant Cows!!!** Timed AI (TAI) programs are becoming popular because of the frustrations and failures to detect cows in heat. Our research at Virginia Tech over the past 10 years has shown that the average Holstein cow expresses "standing heat" for 7.5 hours with approximately ONE mount per hour. I believe this combined with larger herds and less time and labor to conduct three daily observation sessions has led to estrus detection rates where less than 50% of the cycling cows are being observed in heat in a timely manner. The average days to first service for Virginia DHI herds last month was 98 days which

means half of all cows inseminated receive their first service after 100 days in milk. The first advantage and maybe the most important benefit of a TAI program is all cows receive first service within a narrow window of time (usually 6 to 13 days). We have used TAI exclusively at the University Dairy Center over the past 16 months and the average days to first service is presently 78 days or 20 days lower than the average for Virginia DHI herds. Dairy cows inseminated with TAI program usually have a lower conception rate when compared to dairy cows inseminated after an observed estrus. During the past 16 months we have averaged a 30% conception rate with TAI. Our monthly conception rate for cows inseminated with TAI has ranged from 13 to 52%; however, the pregnancy rate (number of eligible cows that become pregnant ever 21 days) has average 20%. Usually the traditional reproductive indices such as services per conception and conception rate are negatively affected when TAI is implemented. The interval from calving to first service and overall pregnancy rate almost always improves when a TAI program is implemented. I believe the bottom line for any reproductive management program to be successful is it must produce pregnant cows in a timely manner. I am convinced that for the majority of herds a properly conducted Timed AI program is the number one option to GET MORE PREGNANT COWS.

-- Ray L. Nebel  
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**Milk Quality Starts at Home.** Producing milk requires a lot of time and energy on the farm. Producing quality milk requires attention to detail. It has been said that it doesn't take any longer to do the job right than to do it wrong, and this is true with producing quality milk. The production of quality milk starts with routine maintenance of the milking system. This should be done by your milking equipment provider every six months to ensure proper operation of the pulsators, vacuum and cooling systems. You can perform several maintenance tasks yourself, such as changing inflations, milk hoses and

vacuum lines on a regular basis. The rubber in these items will deteriorate over time leaving cracks for bacteria to build up in. Another important piece of the puzzle is proper milking procedures. Pre strip all cows to check for abnormal milk, and discard milk from cows showing any signs of infection. Use a pre-dip to disinfect the teat and to help loosen any soil. Individual paper towels or cloths should be used to remove the teat dip and any soil prior to milking. Remember that the pre-dip should stay on the teat for 30 seconds to be effective, and don't forget to clean the teat end as well as the sides. After milking is complete teats should be dipped with a post-milking dip to prevent bacteria from entering the teat before the streak canal closes. Check all equipment daily to ensure that it is clean, especially the bulk tank. Your milk spends most of the time here prior to pick-up and any buildup can lead to high bacteria counts. Routine maintenance of the housing area also plays an important role in quality milk production. Remove all manure and urine from free stalls and provide adequate bedding. In loose housing facilities provide adequate bedding to absorb wastes and work it up at least twice daily. By providing a clean surface for cows to lie on, we can reduce the possibility of infections from environmental organisms. With or without low milk prices the extra premium money that is available for quality milk can go a long way in making your operation profitable and avoiding problems later. Remember, doing it right doesn't really take any extra time, just attention to details.

-- Alan G. Grove,  
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## **\*\* Upcoming Activities\*\***

### **Area Dairy Conferences (2003)**

**Marion** (Southwest Virginia) Dec. 9

Farm Bureau Building in Marion

contact *Andy Overbay*

(276)223-6040 or email: [aoverbay@vt.edu](mailto:aoverbay@vt.edu)

**Rocky Mount** Dec. 10

Waitsboro Ruritan Club

contact *Sue Puffenbarger*

(540) 483-5161 or email: [smpp@vt.edu](mailto:smpp@vt.edu)

**Harrisonburg** (Valley) Dec. 11

Rockingham Ext. Office (Conference Room)

contact *Alan Grove or Tina Horn*

(540) 564-3080 or (540) 245-5750

email: [agrove@vt.edu](mailto:agrove@vt.edu) or [tihorn@vt.edu](mailto:tihorn@vt.edu)

**Farmville** Dec. 17

Prince Edward County Ext. Office (Conference Room) on Rt. 15

contact *J. B. Daniels*

(804)561-2481 or email: [jadanie2@vt.edu](mailto:jadanie2@vt.edu)

**Culpeper** Dec. 18

Contact *Alan Grove*

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