

Guide to Crisis Management of Somatic Cell Counts in Goats

Vermont Agency of Agriculture, Food and Markets

Updated to reflect 2009 PMO changes by Dan Scruton, Dairy Programs Section Chief

Second Edition by

Dan Scruton, Senior Agricultural Development Coordinator

Dr. Kerry Rood, DVM, Vermont State Veterinarian

Laurel Junkins, Dairy System Coordinator

Byron Moyer, Dairy Section Chief

Dan Scruton, Milk Quality Enhancement Program

In Cooperation with

Woody Pankey, University of Vermont

Lynn Hinckley, University of Connecticut

John Porter, University of New Hampshire

Debbie Miller, Vermont Butter and Cheese Co.

Steps to prevent

Prevention is the key to mastitis control. Treating your way out of a mastitis problem is a temporary solution and measures need to be taken to make sure new cases are minimized or you will be back in trouble soon. **You need to identify what is causing the mastitis problem.** If possible think back to when the high SCC or clinical mastitis started and identify changes that occurred at about that time. Below are the steps that need to be followed to minimize new cases of mastitis and develop a program to deal with the mastitis you have and prevent future problems.

Prudent Treatment Plan

A Treatment plan for mastitis should be developed with your veterinarian before problems start. This treatment plan should include:

- What to do when specific problems occur?
- Who will do the treatment?
- What records and withholding procedures will be utilized?
- Dry animal therapy program.

Culling

3. An alternative that can be done right at the farm is the California Mastitis Test (CMT). CMT s have the advantage of giving results for individual quarters, however it is commonly misused and, if not properly done, high SCC animals may be missed. CMT kits are available from most dairy suppliers and come with a set of instructions. The most common mistake is the use of too much milk and/or reagent. A few streams of foremilk (sampled before milking the animal) is stripped out. Then, a small amount of milk is put into the paddle. The paddle is tilted almost vertically so that only to 1 teaspoon of milk remains in each cup. An **equal amount of reagent** is added to the milk and swirled for about 15 seconds. The paddle is then tipped back and forth to see if any thickening of the milk occurs. The more thickness, the higher the SCC. Any trace amount of gelling on the paddle is around a 300,000 per ml SCC, a thickening of the milk, but not clumping together is around 500,000 to 1,000,000. If it thickens and clumps together it is over 1,000,000. If it thickens and sticks to the paddle the count is generally over 2,000,000. If you are unsure, your inspector, most field reps, and Veterinarians have done CMTs and can help. **NOTE: CMTs must be read under a good bright light and the reagent needs to be stored properly. Follow label directions for storage.**

Culture and treat or cull

With goats you will want to identify the high SCC animals, but it will depend on the stage of lactation whether treating to reduce the SCC is appropriate or not. Work with your veterinarian to develop a treatment plan for the high SCC animals. Your veterinarian may want to culture some or all of the high SCC animals. Work with them and make decisions on each animal as to the economics of treating or culling. **Uninfected, late lactation animals with high SCCs may need to be dried off if they are causing the tank to be over the 1,000,000 limit even if they are not infected with mastitis.** About three weeks after they have been treated, do an SCC and consult your Veterinarian to see if cultures or repeat treating is needed. **Remember do not treat just based on SCC results, work closely with your veterinarian to ensure you are properly handling the animal treatment decisions and keeps good records.**

Milking Procedure

- A. Completely Dip each Teat
- B. Observe the Foremilk
- C. Wipe Dry with Individual Towel
- D. Attach Unit
- E. Keep Unit Adjusted
- F. Shut Off Vacuum then Remove Unit
- G. Dip Teats

Below is a further explanation of the milking procedure on the front of this sheet. Please post this in the milkhouse or milking parlor for review by personnel as needed

Animals should be maintained in a clean dry environment 24 hours a day

When predipping, it is very important to cover the entire teat. It is difficult to consistently cover the entire teat when spraying. Spraying in a tie stall barn is not recommended.

If teats are heavily soiled, wash with an individual paper towel dipped in an udder wash solution compatible with your predip.

- A. **Completely Dip** each teat. Use a product that is labeled as a predip and has been shown to be effective at preventing mastitis*. **Be sure to cover the entire teat** and allow for at least 30 seconds of contact time.
- B. **Observe** the foremilk from each teat for abnormalities. This stimulates letdown, checks for mastitis and sanitizes your hands. **Do not strip milk into your hand.**
- C. **Dry** teats thoroughly with individual paper towels removing all the teat dip to prevent any residue, If predip has dried then redip and remove while wet. Do not touch teats after removing the dip.
- D. **Attach** the milker unit within one minute after the start of stimulation. **Do not attach to blind quarters as they may contaminate the milk and spread mastitis to other animals.**
- E. **Adjust** unit as necessary for proper alignment to prevent squawks', especially at the end of milking when the slightest 'squawk' may increase new cases of mastitis.
- F. **Shut off** vacuum before removing unit.
- C. **Dip** teats immediately after unit removal with a product that has been shown to be effective at preventing new cases of mastitis*.

Discard used dip and wash dip container after each milking.

Caution: In freezing weather dip should be removed or allowed to dry before animals are turned out.

*Efficacy, ability to prevent mastitis, can be shown through research protocols recommended by The National Mastitis Council. The dips are tested under either experimental challenge or natural conditions.

For further explanation or for assistance with your milk quality problems please contact Laurel Junkins at the Milk Quality Enhancement Program (802) 793-3868 or email to laurel.junkins@state.vt.us