

Dairy Newsletter

MASTITIS AND SOMATIC CELL COUNTS DURING SUMMER MONTHS

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Keeping somatic cell counts (SCC) low in your herd can prove to be a real challenge during the hot summer months when counts increase along with hot, humid temperatures outside. What causes the elevation in SCCs and how can we prevent them? We generally see higher humidity with the warmer temperatures, and this can affect things like cow comfort and feed intake, but can also affect SCC. The increase in air moisture leads to less evaporation, so the alleyways and gutters stay wet for much longer and may never completely dry. Moist, dirty floors, along with warm, moist, dirty bedding, result in a greater opportunity to introduce bacteria to the teat of the dairy cow, causing a potential for higher somatic cell counts. There are other possible explanations as well. There is some thought that heat stress on the cow itself may lower her immune response and ability to fight off low level infections in the udder. Some research has suggested the summer SCC increase may be related to decreased milk production when cows are experiencing heat stress. Other research, however, suggested that the real culprit in the summer is the increased rate at which pathogens multiply, thereby increasing the potential for infection from environmental pathogens (Hogan et al 1989) (University of Minnesota Dairy Extension).

WHAT TO DO?

There is no one quick way to solve this problem, but some steps to follow to help keep bacteria numbers lower and thus keep mastitis and somatic cell counts in line include:

- Scrape alleys often, keeping the accumulated manure to a minimum. This in turn keeps manure on the cows' feet to a minimum.
- Stall bedding is important! Scraping the inevitable manure off the stall platform and keeping clean, dry bedding material near the back helps keep udders cleaner.
- Keep milking routines and equipment at their highest quality level. Cows carrying even subclinical levels of infection require extra steps to prevent contamination of other cows. This includes milking them last, and thorough teat dipping of all quarters.



- Take advantage of air movement in barns. Free air movement from open-sided barns and properly placed fans can reduce the moisture level in the stalls and help dry some of the alleyways as well. This will help keep cleaner feet and cleaner, cooler cows.
- Move cows around the barn and parlour slowly. Fast moving cows kick up more manure onto their feet, legs and udder. Cows moved calmly are also more likely to enter the parlour more smoothly, which will help them more readily enter the milk letdown phase of the milking process.



COLLECTING SAMPLES FOR MILK CULTURES

If you are having issues with high SCCs, or individual cows who may be more suspect, a milk culture may be useful to determine the most appropriate treatment, if any. Ensuring you are collecting samples properly will go a long way to ensure you are getting the best results the first time around, thereby saving you time and money:

- Collect the sample(s) immediately before milking and wear clean nitrile/latex gloves!
- Clean and dry the udder using standard preparation as you would for milking. Use individual paper towels to dry the teats prior to sampling.
- Scrub each teat end opening thoroughly in 3 directions with a cotton ball soaked in alcohol.
- Discard the first one or two streams of milk
- Remove vial cap carefully and fill bottle about 2/3 full. Do not touch the rim with the teat or your fingers. For SCC testing, the vial must be filled completely.
- To collect a composite sample from a cow, collect an equal volume of milk from each quarter in one sample bottle. Start from the teats closest to you rather than the far teats to ensure you do not contaminate the sample.
- With a waterproof marker, label vials with the identification numbers. We also recommend that you indicate the cow name and the date. If quarter samples are collected, designate each quarter sample as RF, RH, LF, or LH.
- Collect milk samples from quarters with clinical mastitis before treatment.
- Cool samples on ice in a portable cooler as they are collected. Refrigerate samples immediately after taking them. If the samples cannot be brought in that same day, please freeze samples and submit with 24 to 48 hours of collection.
- SCC testing cannot be performed on samples that have been frozen or samples containing clots; however, these are still valuable for culture of mastitis-causing bacteria.

Our veterinary technicians are available to visit your farm to collect milk samples from a few or many cows, and to transport them to our lab for shipping the same day. Please call the office at 705-722-3232 to make an appointment.



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VETERINARY SERVICES