

5 Common Parlor Mistakes You Should Avoid to Keep Somatic Cell Counts Low

By: Jeffrey Bewley, Ph.D.

Maintaining a low bulk tank somatic cell count has always been a good dairy management strategy. Low somatic cell counts are associated with improved milk quality, increased shelf life and cheese yield after the milk leaves the farm, increased milk production, and reduced veterinary and drug costs. Recent market changes have led to an increased emphasis by milk buyers toward lowering bulk tank somatic cell counts at the farm level. As a result, many dairy producers have refocused efforts to lower somatic cell count. Often, the reasons for a high bulk tank somatic cell count can be found in the milking parlor. Following are 5 common parlor mistakes that should be avoided to keep somatic cell counts low:

1. Milking dirty or wet teats.

Poorly cleaned or dried teats result in increased incidence of mastitis and higher somatic cell counts. The slogan for effective milkers should be “We milk clean, dry teats.” The first step to milking clean, dry teats is to keep cows as clean as possible before they ever enter the milking area. Clean cows are exposed to fewer environmental mastitis-causing bacteria and they are easier to clean before milking. If you feel the need to wash a high percentage of your cows, you may want to reconsider how your pastures or barns are managed to improve cow cleanliness. Dirt, manure, or debris can often be removed by hand or with a towel without the use of water. When cows are excessively dirty, some use of water may be necessary to clean the teats. However, this practice should be the exception and not the rule. Water use in the milking process should be kept to a minimum. If water is used, be sure to only wet the teats and not the entire udder. It is nearly impossible to dry the udder and this water ends up being drawn into the inflations during the milking process. Generally, the use of water in the parlor results in increased mastitis and higher bacteria levels in milk. All teats should be thoroughly dried with a single service, absorbent cloth or paper towel. **Never use the same towel on two cows.** All debris, manure and predip residue on the teats should be removed while drying, using a gentle, twisting motion. During the drying process, pay particular attention to getting the teat ends clean and dry. If teats are not adequately dried, water, containing mastitis-causing bacteria, may end up in the teat cups during the milking process and expose the open teat ends to these bacteria.

2. Poor pre or post dip coverage.

Pre-dipping and post-dipping are two “tried and true” mastitis management strategies. Unfortunately, carelessness in the milking parlor often leads to inadequate teat dip coverage. Predipping with a sanitizing solution eliminates bacteria on teat ends prior to milking and helps to control mastitis caused by environmental mastitis pathogens. The predip should remain on the teats for at least 30 seconds before drying. As soon as possible after the milking units are removed, teats should be dipped with a post-dip, which has been demonstrated to be an effective germicide through independent research. An effective post-dip kills bacteria on teats, prevents organisms from colonizing in the teat canal, and reduces the rate of new infections from contagious mastitis bacteria. When pre-dipping and post-

dipping, at least $\frac{3}{4}$ of the teat should be covered with a goal of covering the entire teat. Teat dip cups should be kept clean. Some dairy producers choose to spray teats rather than dip. While it is possible to adequately cover teats with a spray bottle, full coverage is often inadequate when spraying teats. A good way to test the effectiveness of dipping is to wrap a paper towel around the teat just after dipping. The goal is to see a continuous streak of teat dip on the paper towel, indicating the entire teat was covered. With spraying, you will often find broken streaks of teat dip because the opposite side of the teat is often not covered.

3. Too little or too much time between teat stimulation with the cow and milker attachment.

Attaching milkers too soon or too late can result in excessive milking time or reduced milk yield. The timing of milking unit attachment is a critical step in a good milking procedure. Oxytocin, which causes milk letdown, reaches peak levels at 60 seconds after stimulation. Therefore, milkers should be attached within 1 to 1.5 minutes after teat stimulation. Coordinating attachment with milk letdown helps ensure that the milkers are attached during the time frame when milk flow is highest.

4. Spreading mastitis with contaminated hands.

Contagious mastitis-causing bacteria, like *Staph. aureus*, may live on your hands and be transmitted between cows during milking. At minimum, hands should be thoroughly washed with soap and water before milking. Ideally, because bacteria are less likely to adhere to gloves than rough, calloused skin, nitrile or latex gloves should be worn during milking. Gloves minimize the spread of contagious mastitis between cows during milking and help protect the milker's skin. Gloves are also easier to disinfect than bare hands. Whether gloves are worn or not, hands should be washed periodically throughout the milking process.

5. Overmilking.

Care should be taken to avoid overmilking which can increase the incidence of liner slips and lead to teat end damage. Damaged teat ends are more susceptible to mastitis. When automatic take-offs are used, the unit settings should be adjusted to ensure they do not stay on too long. Additionally, it is important to resist the temptation to override the automatic detachment by putting the milker back on. The process of machine stripping, or holding down on individual teat cups or milking clusters, should be avoided. Properly stimulated cows milked with correctly functioning and attached milking units should not have excessive residual milk left in the udder. The potential losses from machine stripping far outweigh any potential benefits.