

Troubleshooting a Herd with a High Bacteria Count¹

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High bacteria counts in dairy herds usually are caused by poor cleaning of milking equipment, improper cooling of the milk, a mastitis problem in the herd or some combination of these factors.

The bulk tank analysis sheet (published in the EDIS publication, "Trouble Shooting a Mastitis Problem Herd," <http://edis.ifas.ufl.edu/DS132>) can be a big help in the effort to identify the cause of high bacteria problems.

To determine the cause of your high bacteria count, examine your procedures in the dairy for trouble spots. Some common problems are listed below.

1. A high lab pasteurized count indicates that there is a build-up of mastitis-causing organisms on the milking equipment, so some sort of cleaning problem has occurred. It may be improper water temperature, improper soap concentration, or air injector not working.
2. If the *Streptococcus agalactiae* and or *Streptococcus uberis* counts are high and the lab pasteurized count is low, the bacteria may be in the cows' udders.
3. Do you know how much water your sink holds? Know your sink capacity and get familiar with the chemicals you use so that your cleaning solutions are always potent and effective. Make sure to teach dairy employees to mix solutions properly and stress that they should never simply add more water to a solution as they use it up. Adding water will dilute the solution and decrease its effectiveness. All chemicals have dilution directions indicating how much product you need to add per gallon of water. Read directions, measure the capacity of your sink, and post simple, clear mixing instructions. Remember that if you change chemicals, the recommended ratio of product to water will change. Same for the bulk tank cleaning.
4. Check water temperature during the rinse cycle. It should be cool, not hot. Rinse water should be discarded.
5. Check hot water temperature in the wash sink. It should be at least 160 degrees F at the start of wash-up and 110 -120 F at the end of the wash cycle.
6. Is the proper amount of pipeline cleaner being used? Is the cleaner stored with the cover on?

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- Dry chlorine will evaporate if the cover is left off.
7. Do you use a dairy sanitizer before each milking? Sanitize the line and the tank less than an hour before milking for best results. Bulk liquid chlorines don't always work. If in doubt, have your supplier test the product.
 8. Does the air injector work? If not, cleaning will be ineffective. Your air injector should be loud, and the pipes should shake.
 9. Use a cleaning solution to clean out all pulsator lines and vacuum lines, pump to trap. Be careful not to cause burns. *Never mix chlorine products and acid cleaners.*
 10. Replace every rubber or plastic hose in the system including jetter cups and liners and any rubber hoses that fill sinks and bulk tanks, chase milk, or wash udders.
 11. Dismantle and clean the milk pump.
 12. Check the milk temperature. If it's too high, recharge the cooling system, and make sure that the cooling fins on the compressors are clean and that the agitator is working.
 13. If there is a build-up of material in the lines, it may be necessary to dismantle all milk lines and clean them with a brush. The bulk tank also may have to be manually scrubbed to remove build-up.
 14. If you have a high somatic cell count (SCC) along with a high bacteria count, you may have a cow problem rather than a cleaning problem. The EDIS publication "Mastitis Control" (<http://edis.ifas.ufl.edu/DS128>) explains the proper methods for handling a high SCC problem.