

**DEPARTMENT OF AGRICULTURE, TRADE AND  
CONSUMER PROTECTION**  
*RURAL ELECTRIC POWER SERVICES PROGRAM*  
*(REPS)*

**STAPH. AUREUS MASTITIS**  
**CHARACTERISTICS AND MANAGEMENT TECHNIQUES**  
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This bacteria is a tissue dweller, meaning that it invades the tissue of the udder, as opposed to living in the milk, or on the surface of milk secreting cells. In the tissue of the udder, Staph. aureus can form small abscesses with a thick scar tissue wall, which do not allow antibiotics to penetrate to the bacteria. Typically treatment may seem to be successful, but about the time that the milk is clear of residue, the mastitis will return. The reason for this is that the antibiotics kill the bacteria in the milk, but not in the abscesses. Repeated flare-ups occur as the abscesses continually break open to shed new bacteria into the milk. Resistance to antibiotics is also common with this organism. Completely curing a cow infected with Staph. aureus is possible but the chances are not good. Because these cows can be a source of infection to other cows, and because of the particular risk that this bacteria presents to a cow it is very important to milk them last. Successful treatment of Staph. aureus will require several weeks to a month before the cell count will drop. A successful program to control Staph. aureus in a herd requires culling.

Not all cows that culture positive for Staph aureus are infected. Not all cows with Staph. aureus culture positive. Culturing is not a reliable way to determine which cows are infected with Staph. aureus. The better method uses monthly SCC test results to assemble a milking order. It is not uncommon that dairy farms will have some sort of milking order with the problem cows being milked last, but most milking orders are not very effective at protecting the uninfected cows. A more proactive way to approaching segregation is to more aggressively protect the uninfected cows. To do this, you would use your monthly DHIA report to create these groups.

- 1) The first group is a very clean sub-herd of cows, fresh heifers, and "clean cows" that have never had mastitis, and those with SCC scores below 200,000 for the last 6 months. This is a very restricted group that is always milked first.
- 2) The next group would be a buffer group and is made up of cows that have a SCC of under 200,000 but have not been below 200, 000 for the last 6 months. Only cows from this group that remain under 200,000 for 6 months are allowed into the first group. As would make sense, these animals should be milked after group 1 and before group 3.
- 3) Group 3 would be the rest of the herd, with the cows to be culled for persistently high SCC at the end of this group.

These groups would need to be changed slightly with each DHIA report.

THE CREATION OF A WELL PROTECTED "CLEAN" HERD IS ESSENTIAL TO WORKING OUT OF A CHRONIC STAPH. AUREUS MASTITIS HERD PROBLEM.