## *Butterworks Farm quarter-level culture summary*

| *Type of intramammary infection (IMI)* | *Number of IMI over study period* | | *Type of intramammary infection* | *Average quarter-level SCC by infection type* | *Range of quarter-level SCC:* Min | Max |
|---|---|---|---|---|---|---|
| Staph. species | 37 | | Strep. species | 3,707,286 | 41,000 | 18,000,000 |
| Strep. species | 9 | | Staph. aureus | 2,118,421 | 190,000 | 8,900,000 |
| Staph. aureus | 8 | | Staph. species | 197,306 | <2,000 | 1,300,000 |
| Other Gram-positive/Unknown/Yeast | 5 | | *Mixed infection:* Strep. sp., Corynebacterium sp. | 471,000 | 12,000 | 930,000 |
| Corynebacterium species | 4 | | *Mixed infection:* Staph. species, Strep. species | 165,800 | 5,000 | 310,000 |
| *Mixed infection:* Staph. species, Strep. species | 3 | | *Mixed infection:* Staph. sp., Corynebacterium sp. | 128,500 | 7,000 | 250,000 |
| *Mixed infection:* Staph. sp., Corynebacterium sp. | 2 | | Corynebacterium species | 13,500 | <2,000 | 29,000 |
| *Mixed infection:* Strep. sp., Corynebacterium sp. | 2 | | | | | |
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**Summary of quarter-level results:** As seen in the first table, the large majority of intramammary infections on your farm were caused by Staph. species (37), followed by infections with Strep. species (9) and Staph. aureus (8). However, looking at the average quarter-level SCC of infected quarters (right-hand table), you can see that the infected quarters contributing most to a higher bulk tank SCC would be the quarters infected with Strep. species or Staph. aureus. Although infections with Staph. species (CNS) were the most common, the average SCC for these quarters wasn't elevated (below 200,000 cells/mL). The fairly large range of quarter-level SCC for Staph. species quarters could likely be explained by identifying exactly what species of Staph is causing the infection, as some species of CNS are more of a concern than others. We are currently in the process of identifying all Staph to species level, but don't yet have these results.

**Take home message:** The primary opportunity identified by these quarter-level culture results for milk quality improvement would be to continue your efforts identifying and managing Staph. aureus-positive quarters within the herd. Strep. species were the biggest contributor to the bulk tank somatic cell count. Strep. species (specifically Strep. uberis at your farm) are environmental pathogens, and best controlled by adequate amounts of clean, dry bedding, and improved lot sanitation.