

Choiniere Farm quarter-level culture summary					
				Range of quarter-level SCC:	
Type of intramammary infection (IMI)	Number of IMI over study period	Type of intramammary infection	Average quarter-level SCC by infection type	Min	Max
Corynebacterium species	27	Mixed infection: S. aureus, Strep. sp., Coryne. sp.	1,147,500	460,000	2,200,000
Staph. species	23	Staph. aureus	1,091,578	8,000	5,253,000
Staph. aureus	17	Strep. species	1,030,000	9,000	5,200,000
Strep. species	5	Mixed infection: Strep. sp., Coryne. sp.	552,714	2,000	1,900,000
Mixed infection: Strep. sp., Corynebacterium sp.	5	Gram-negative, coliform organism	412,500	270,000	790,000
Unknown organism	5	Corynebacterium species	277,667	2,000	5,358,000
Mixed infection: Staph. species, Strep. species	4	Mixed infection: Staph. sp., Coryne. sp.	253,000	253,000	253,000
Gram-negative, coliform organism	2	Staph. species	242,071	2,000	2,658,000
Mixed infection: S. aureus, Strep. sp., Coryne. sp.	1	Mixed infection: Staph. species, Strep. species	232,600	5,000	510,000
Mixed infection: Staph. species, Coryne. sp.	1				

Summary of quarter-level results: As seen in the first table, most intramammary infections on your farm were caused by Corynebacterium species (27), followed by Staph. species (23) and Staph. aureus (17). 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 Staph. aureus and Strep. sp. Although infections with Staph. species (CNS) and Corynebacterium sp. were very common, the average SCC for these quarters wasn't greatly elevated (avg 242,000 and 278,000 cells/mL, respectively). 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 identifying and managing Staph. aureus-positive quarters within the herd. Although they comprised a smaller infections (5), Strep. species were also a big contributor to the bulk tank somatic cell count. Strep. species are environmental pathogens, and best controlled by adequate amounts of clean, dry bedding, and improved lot sanitation.