Lynd 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	35		Gram-negative, coliform (Serratia)	4,550,000	2,300,000	6,800,000
Strep. species	11		Strep. species	1,671,688	3,000	12,827,000
Gram-negative, coliforms (Klebsiella, Enterobacter, Serratia)	6		Staph. aureus	1,089,000	122,000	2,600,000
Staph. aureus	4		Klebsiella	730,000	730,000	730,000
Corynebacterium species	1		Gram-negative, coliform (Enterobacter)	200,000	200,000	200,000
Gram-negative, non-coliform (Pseudomonas)	1		Staph. species	137,783	5,000	880,000
			Corynebacterium species	38,000	38,000	38,000
			Gram-negative, non-coliform (Pseudomonas)	24,000	24,000	24,000

Summary of quarter-level results: As seen in the first table, most intramammary infections on your farm by far were caused by Staph. species (35), followed by Strep sp. (11). 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 (ignoring the single Serratia infection). Although infections with Staph. species (CNS) were the most common, the average SCC for these quarters was actually very low (avg 138,000 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. We're hoping to send these out by Summer 2021.

Take home message: The primary opportunity identified by these quarter-level culture results for milk quality improvement would be decreasing the level of Strep. sp. infections in the herd. Strep. species are environmental pathogens, and best controlled by adequate amounts of clean, dry bedding, and improved lot sanitation. Staph. aureus infections were very limited (and you had identified most of them before we did!)- your hard work and attention to controlling this contagious pathogen on your farm are clearly evident.