

Key Performance Indicator: Qualitative Bulk Milk Cultures

Key performance indicator (KPI), sources and suggested interpretation of bulk tank milk culture results.^a

Bacteria	Goal (cfu/ml)	Typical Sources in Milk	Interpretation
Streptococcus agalactiae	0	Mastitis infections	Isolation of any colonies indicates likely presence of infected cows
Staphylococcus aureus	0	Mastitis infections, teat skin	For both pathogens, isolation from bulk tank milk indicates the likely presence of infected cows;
Mycoplasma spp.	0	Mastitis infections	repeated isolation in BTM usually found in herds with greater prevalence
Coagulase-negative Staphylococci (CNS)	<250-500	Teat skin contaminant	Investigate pre-milking teat disinfection
Environmental streptococci	<500	Contamination from dirty udders or milking equipment;	When env.strep and coliforms both exceed goals it is a strong indication that the source was poor milking hygiene.
Coliforms	<100	occasionally caused by mastitis infections	
Others	0	Pseudomonas spp.	Presence of significant numbers often indicates contamination of milk with water
	0	Bacillus spp.	Presence of significant numbers often indicates poor milk sample handling

^aadapted from Farnsworth, 1993 and Jayarao et al., 2004

Farnsworth RJ. 1993. Microbiologic examination of bulk tank milk. Vet Clinics North America, Food Anim.. Pract, 9:469-474.

Jayarao, B. M., S. R. Pillai, A. A. Sawant, D. R. Wolfgang and N. V. Hegde. 2004. Guidelines for monitoring bulk tank milk somatic cell and bacterial counts. J. Dairy Sci. 87:3561-3573.