C.A. 74. 123812b original

123812b **Factors influencing the production of staphylococcal enterotoxin A in milk.** Tatini, S. R.; Jezeski, J. J.; Olson, J. C., Jr.; Casman, E. P. (Dep. Food Sci. Ind., Univ. Minnesota, St. Paul, Minn.). *J. Dairy Sci.* 1971, 54(3), 312–20 (Eng). The influences of the initial bacterial count and heat treatment of raw whole milk and the initial pH of sterile reconstituted nonfat dry milk on growth and entertoxin A production by *Staphylococcus aureus* were evaluated. In milk relatively free from competing microorganisms, an *S. aureus* population of 2 to 3 million per milliliter was assocd. with detectable enterotoxin A. It was detected after 4 to 6 hr in low-count raw milk or sterile reconstituted nonfat dry milk inoculated initially with 10^3 to 10^5 *S. aureus*/ml. Though *S. aureus* reached 2 to 3 × 10^8/ml in com. raw milks, no enterotoxin A was detected. Growth inhibition of *S. aureus* in raw milks may or may not always result in simultaneous inhibition of enterotoxin A production. Good growth and detectable enterotoxin A resulted in heat treated raw milk (pasteurized or heated at 65.6° for 16 sec). Enterotoxin A was produced in sterile reconstituted nonfat dry milk at initial pH's of 4.5 to 6.5 (adjusted with HCl). At pH 4.5 lactic acid was bactericidal to *S. aureus*.

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