

PREVALENCE OF *Pseudomonas* IN SAMPLES OF RAW MILK

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ABSTRACT: Biofilm; industrialization; problem.

Pseudomonas aeruginosa strains present a great potential of public health problems for immunodepressed people and animals, because they can be found in milk. To identify whether or not these strains were present, 22 samples were collected on rural properties in the western region of Paraná, on the day that the tank truck would pass to collect the milk and take it to the dairy industry, in two periods in each property, thus simulating the milk that the industry would take to the processing. The collection pots were previously autoclaved at 121 ° C for 15 minutes and the milk collection was carried out directly from the cooler, using stainless steel material flambéed with 70%. After the collection, the samples were conditioned in isothermal boxes with ice and transported to the laboratory of Bacteriology and Clinical Mycology, State University of the West of Paraná, Campus of Cascavel, for the microbiological analysis. The methodology used for microbiological analysis was surface seeding at dilutions of 10⁻¹ to 10⁻³ in 0.1% peptone water in tubes containing 9 mL. For *Pseudomonas spp* counts, the *Pseudomonas* Base Agar was used at 37°C for 24 hours and for the *Pseudomonas aeruginosa* count the culture medium used was Cetrimide Agar at 37°C for 48 hours. The values, obtained for *P. aeruginosa* count, suggest possible formations of biofilm, because the formation of biofilm occurs from cells with log of 3.00 to 5.00 UFC / ml. It was observed that the maximum counts for *P. aeruginosa* were 4.45 log CFU / mL in the 1st collection and 5.55 log CFU / mL in the 2nd collection. As for the *Pseudomonas spp* counts, median values of 2.60 to 4.50 log CFU / mL and maximum counts of 6.95 log CFU / mL and 6.00 log CFU / mL were obtained. Counts from 6 log UFC / mL result in high levels of proteolysis and decreased yield for dairy derivatives, highlighting the importance of the decrease of these microorganisms, putting hygiene measures in the management of milking, because this genus is the main responsible for the production of enzymes that hydrolyze k-casein which directly affects the process of industrialization.