

**Title: PRELIMINARY ASSESSMENT OF THE PREVALENCE OF COAGULASE-POSITIVE STAPHYLOCOCCI IN RAW MILK CAPTURED BY A DAIRY IN WEST OF SANTA CATARINA**

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**Abstract:**

The *Staphylococcus* gender is formed by more than 30 species, six of that, are coagulase-positive. The feature to produce coagulase - extracellular enzyme – is one of the most frequently used to correlate the isolated strain with the production of enterotoxin. Between the *coagulase-positive staphylococci*, the *S. aureus* species is the most prevalent in raw milk. The *S. aureus* is one of the main microorganism causing contagious bovine mastitis and difficult treatment because of the high resistance to antibiotics. Seeing that the *S. aureus* is widely distributed in dairy herds, the prospect of raw milk contamination and the consequential production of enterotoxin are high, making its presence in the milk, and its derivatives, a grave public health problem, because the staphylococcal toxins are resistant to pasteurization (heat-resistant) and, because of that, can remain stable in products offered to human consume, pasteurized milk and derivatives. In this way, the object of this paper was to observe the presence of coagulase-positive staphylococci in raw milk, captured by a cheese factory in Santa Catarina's West. The analysis was realized in Food Microbiology Laboratory in Instituto Federal Catarinense – Campus Concórdia, during the months April and May in 2015. Eight samples of raw milk were collected, in sterile vials, in milk reception in the industry on different days, to research the coagulase-positive staphylococci. The technique was inoculation with scattering surface by loop Drigalski, amid Agar Baird Parker added egg yolk emulsion and potassium tellurite and incubation at 36° C for 48 h. Typical and atypical colonies were picked into BHI broth and incubated at 36° C for 24 h. The coagulase prove was realized with rabbit plasma. The results were satisfactory, whereas 100% of the samples counting <100 UFC/mL of coagulase-positive staphylococci. The Brazilian law does not provide a parameter for this group of bacteria in milk, but establish limits to other foods that are between 10<sup>2</sup> and 10<sup>3</sup> UFC / g or ml. That, probably, owns to the fact that, values above 10<sup>6</sup> of *S. aureus* are normally necessary to the enterotoxin detection in food.

**Keywords:** milk, raw material, coagulase-positive staphylococci, public health

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