

Title: PRELIMINARY ASSESSMENT OF RAW MATERIAL - RAW AND PASTEURIZED MILK-FROM A CHEESE INDUSTRY IN THE WEST OF SANTA CATARINA

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Abstract:

Milk is a complete food, source of protein, carbohydrates, lipids, vitamins and minerals and therefore it becomes one of the most vulnerable food to physical-chemical changes and spoilage by contaminating microorganisms. The hygiene procedures applied for obtaining and maintaining the milk until arrival at the processing establishment determine the type and amount of contaminants. The health of the dairy herd, good practices during milking and storage of milk at a low temperature until the moment of processing are essential to prevent the development of microorganisms responsible for spoilage. Such care is essential to the manufacture of good dairy products, since milk is used as raw material in the cheese industry. The contaminating micro-organisms can cause physical-chemical and organoleptic changes, limiting the durability of milk and dairy products, as well as public health and economic problems. Although there are no standards in the Brazilian legislation for enumeration of thermotolerant coliforms in raw milk, it is known that pasteurization destroys pathogens, but it does not recover poor quality milk, for they remain as 0.1 to 0.5% of the initial microbiota. In order to assess the quality of the raw material used by a cheese factory in western Santa Catarina, during the months of April and May 2015, eight samples of raw milk were collected in sterile bottles from a specific tank truck at the arrival of the milk in the industry, and 8 samples of the same milk after pasteurization for the enumeration of thermotolerant coliform using the technique of Most Probable Number (MPN) in series of 3 tubes in LST broth followed by a transfer to EC broth. In 50% of samples of raw milk the MPN / ml found was ≥ 2400 , showing flaws during the obtaining and maintenance of milk until its arrival at the industry. However, the most severe picture, involving public health, is presented in pasteurized milk, where 25% of the samples were found outside the National Health Surveillance Agency (ANVISA) legislation standards, which tolerates up to 4 MPN / mL.. These results highlight the need for better manufacturing practices and quality control by the industry.

Keywords: milk, raw material, thermotolerant coliforms, public health.

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