

EVALUATION OF HYGIENIC-SANITARY QUALITY OF STRAWBERRY ICE CREAM WITH YACON FLOUR

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Abstract:

The ice cream, also called on Brazil like “gelado comestível”, allows in its formulation the addition of different ingredients, since they do not defeat the end product. By presenting a wide acceptance in the market due to their sensory and nutritional characteristics, industries of ice cream has researched the addition of new ingredients to improve the nutritional value of the product without compromising the final quality. Among these, we can mention the addition of yacon (*Smallanthus sonchifolius*) due to their functional properties. However, the use of contaminated ingredients or failure in Sanitation Standard Operating Procedures (SSOP) described in the good manufacturing practices (GMPs), may lead to microbiological contamination of ice cream, jeopardizing the quality and or impeding their consumption. This research aimed to evaluate the sanitary conditions of strawberry ice cream with addition of different concentrations of yacon flour. The ice cream was produced at the Insituto Federal de Santa Catarina - Campus São Miguel do Oeste, and analyzes were made in the Laboratory of Microbiology of the Universidade Federal de Santa Maria - Campus Frederico Westphalen, according to standards methodology. According to RDC No. 12, the mandatory microbiological analysis for the evaluation of sanitary conditions of ice cream manufacturing are thermo tolerant coliforms, Staphylococcus coagulase positive and *Salmonella* spp. For this study, they produced two ice cream formulations: (A) 1.5% and (B) with 3% of yacon flour. The yacon flour was produced after sanitization of potatoes, cutting, drying at 55 ° C / 14 hours and grinding, in accordance with Good Manufacturing Practices and suffered no treatment to prevent contamination. In accordance with the RDC No. 12, both ice cream formulations produced are suitable for human consumption. The results of the analyzes showed absence for *Salmonella* spp. and Staphylococcus coagulase positive and least 3.0 MPN / g for thermotolerant coliforms, and for the last two analyzes, the legislation provides for limits of 5 x 10² CFU / g and 5 x10 MPN / g, respectively. Therefore, the two ice cream formulations with yacon flour are conform the microbiological quality standards proving the effectiveness of the implementation of Good Manufacturing Practices in the production of these ices, as well as in the manufacture of yacon flour used to add nutritional value to food.

Key words: Ice cream, GMP, *Salmonella* spp

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