

Microbial Assessment of Dairy Byproducts in Albania as a Basis for Consumer Safety

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Abstract : Dairy by-products are a fairly good environment for microorganisms due to their composition for their growth. Microbial populations have a significant impact in the production of cheese, butter, yogurt, etc. in terms of their organoleptic quality and at the same time some also cause their breakdown. In this paper, the microbiological contamination of soft cheese, butter and yogurt produced in the country (domestic) and imported is assessed, as an indicator of hygiene with impact on public health. The study was extended during September 2018-June 2019 and was divided into three periods, September-December, January-March, and April-June. During this study, a total of 120 samples were analyzed, of which 60 samples of cheese and butter locally produced, and 60 samples of imported soft cheese and butter productions. The microbial indicators analyzed are *Staphylococcus aureus* and *E. coli*. Analyzes have been conducted at the Food Safety Laboratory (FSIV) in Tirana in accordance with EU Regulation 2073/2005. Sampling was performed according to the specific international standards for these products (ISO 6887 and ISO 8261). Sampling and transport of samples were done under sterile conditions. Also, coding of samples was done to preserve the anonymity of subjects. After the analysis, the country's soft cheese products compared to imports were more contaminated with *S. aureus* and *E. coli*. Meanwhile, the imported butter samples that were analyzed, resulted within norms compared to domestic ones. Based on the results, it was concluded that the microbial quality of samples of cheese, butter and yogurt analyzed remains a real problem for hygiene in Albania. The study will also serve business operators in Albania to improve their work to ensure good hygiene on the basis of the HACCP plan and to provide a guarantee of consumer health.

Keywords : consumer, health, dairy, by-products, microbial

Conference Title : ICABBBE 2019 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

Conference Location : Dublin, Ireland

Conference Dates : December 19-20, 2019