

MICROBIOLOGICAL CONTAMINATION OF CONFECTIONERY PRODUCTS: A CASE STUDY ON SANTIAGO AND MONCHERRY VARIETIES

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Abstract

This study investigates the microbiological contamination of confectionery products, specifically focusing on two popular varieties, Santiago and Moncherry, sourced from a confectionery establishment in Botoșani County, Romania. Conducted over a two-year period, the research involved biannual sampling, culminating in a total of 40 samples analyzed for Enterobacteriaceae presence in strict adherence to the SR ISO 21528-2:2007 standard. The sampling protocol entailed the collection of five samples per product type during each visit, with meticulous attention to maintaining aseptic conditions during transport to preserve microbiological integrity. Analytical results consistently revealed that all samples had Enterobacteriaceae counts below the threshold of 10 colony-forming units per gram (cfu/g) or milliliter (cfu/ml), thereby demonstrating compliance with established safety standards. These findings underscore the efficacy of the quality control measures and hygiene practices implemented throughout the production, storage, and handling processes of the confectionery products. The continuous monitoring and strict adherence to rigorous hygiene standards are critical in ensuring the safety and quality of these products. This research offers significant insights into the microbiological safety of confectionery items and serves as a benchmark for future studies aimed at enhancing food safety protocols. Compliance with international safety standards confirms the effectiveness of the implemented control measures and underscores the importance of sustained efforts to protect consumer health.

Key words: *contamination, confectionery products, food safety, microbiological control*