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Microbiological Safety and Quality of Liquid and Solid Food Treats for Dogs and Cats

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Abstract: *The increasing popularity of pet treats has raised important questions regarding their microbiological safety and hygienic quality.*

Introduction

This study was conducted to evaluate the microbial contamination levels of commercial liquid and solid food treats intended for dogs and cats, using samples analyzed in our veterinary microbiology laboratory.

The main objective was to assess the microbiological quality of these products and identify potential health risks for companion animals

Material and method

Samples representing various brands of treats available on the Romanian market were subjected to bacteriological isolation and identification using standard culture and complemented by MALDI-TOF mass spectrometry (Zybio EXS2600).

Results and discussions

The investigation focused on hygiene indicator microorganisms and potential opportunistic pathogens, including: *Staphylococcus spp.*, *Enterobacteriaceae*, *Pseudomonas spp.*, and *Bacillus spp.*

Variable levels of bacterial contamination were detected across the tested samples, with higher counts generally observed in solid treats compared to liquid ones.

Although no obligate pathogens such as *Salmonella spp.* or *Listeria monocytogenes* were identified, the presence of environmental and opportunistic bacteria suggests possible deficiencies in hygiene during production or storage.

Conclusions

The findings obtained in this study emphasize the need for continuous microbiological monitoring and improved hygiene practices in the manufacturing and storage of pet treats. Ensuring the microbial safety of these products is essential to protect the health of both companion animals and their owners.

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