


Abstract

Medical Health Hazards in the Production of Meat and Meat Products [†]

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[†] Presented at the 14th European Nutrition Conference FENS 2023, Belgrade, Serbia, 14–17 November 2023.

Abstract: Background and objective: In today's society, meat and meat products occupy a relatively large share in terms of volume of production and have a serious epidemic potential as a source of disease. Both primary and secondary contamination with microorganisms are possible and, if any deviation in the technological process, the standardization of physico-chemical and microbiological indicators can lead to serious consequences for the health of consumers. The purpose of this study is to assess and analyze the likely medical and health hazards arising from the production, supply and consumption of meat and meat products. Methods: The object of the study is an enterprise for the production of meat and meat products in the territory of the Pleven region. For this purpose, an audit was carried out, based on an algorithm built by us, which corresponds to and is based on the Codex Alimentarius methodology, presented in the document "Food Quality and Safety Systems—A Training Manual on Food Hygiene and the Hazard Analysis and Critical Control Point (HACCP) System". Results and discussion: Gaps and inconsistencies were found in the technological documentation, as well as in the HACCP plan in the normalization of the physico-chemical characteristics and the criteria for microbiological safety. These could lead to potential risks and health hazards for consumers of meat and meat products. Quality requirements for meat products should include added soy protein, upper limits of fat content, connective tissue proteins, as well as types and concentrations of added additives. In the developed food safety systems, it is necessary to introduce a total number of mesophilic and psychrotrophic aerobic bacteria, Enterobacteriaceae, molds and yeasts, in order to verify the elements that represent the main hazards in the food chain. The conclusions contain specific recommendations for revising the technological documentation and the HACCP system and regulations for optimizing the microbiological requirements with the inclusion of integral indicators of production process hygiene.

Keywords: meat; HACCP plan; microbiological safety



Citation: Vitkova, T.; Boycheva, V.; Enikova, R. Medical Health Hazards in the Production of Meat and Meat Products. *Proceedings* **2023**, *91*, 365. <https://doi.org/10.3390/proceedings2023091365>

Academic Editors: Sladjana Sobajic and Philip Calder

Published: 22 February 2024



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Author Contributions: Conceptualization, T.V.; methodology, T.V., V.B. and R.E.; software, T.V. and R.E.; validation, T.V., V.B. and R.E.; formal analysis, T.V., V.B. and R.E.; investigation, T.V., V.B. and R.E.; data curation, T.V.; writing—original draft preparation, T.V. and R.E.; writing—review and editing, T.V., V.B. and R.E.; supervision, T.V.; project administration, T.V.; funding acquisition, T.V. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Results attained in this study are included in the manuscript. Individual data is not available due to official legal, organizational and data security policies, and ethical restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

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