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Design and development of a range of chicken and turkey sausages

Ana – Maria Dabici, Andrei – Dorin Mărginean, Andrei Alexandru Buhăceanu, Corina – Dana Mișcă, Viorica-Mirela Popa*

Faculty of Food Engineering, University of Life Sciences "King Mihai I" from Timișoara, Calea Aradului 119A, 300645, Romania

**Corresponding author, e-mail: mirelapopa@usvt.ro*

Abstract: Poultry meat is one of the most nutritious, characteristic, and popular foods on the market, a top-quality raw material that helps meet the needs of the human body. Poultry meat plays an essential role in the harmonious development of the human body and is considered an indispensable food product in a defined and balanced diet. Consuming turkey meat helps strengthen the immune system due to the tryptophan it contains. Some studies have shown that the manifestations of certain autoimmune diseases begin to decrease when exposed to this amino acid, which is beneficial for a healthy body.

The production and consumption of chicken sausages have increased worldwide, becoming increasingly popular due to their sensory characteristics and manufacturing technology.

The purpose of this paper was to document and analyze the current state of research in the field, to obtain and evaluate the organoleptic properties of two types of sausages: chicken and turkey, and to determine their energy value.

The research confirmed that it is feasible to develop a range of sausages with an improved nutritional profile (low fat, high protein) using chicken and turkey meat. By precisely adjusting the meat ratio and including natural emulsifiers, a product with competitive physical, chemical, and sensory characteristics was obtained. The optimized range represents a valuable alternative to traditional products, meeting market demands for healthy meat products.

• Materials and methods

Fresh, refrigerated poultry meat (internal temperature maintained between 0 and 4°C, purchased from certified suppliers in accordance with European hygiene standards) was used to produce these two types of sausage. Muscle fractions from the thighs (with and without skin) and breast were used, selected to obtain an optimal protein/fat (P/F) ratio, essential for emulsion formation and final sensory qualities. As for the turkey meat, thigh meat (muscle mass from the thighs) was mainly used, as it has a high protein content and a low lipid profile compared to chicken meat.

• Conclusions

Poultry meat is one of the most nutritious, characteristic, and popular foods on the market, a top-quality raw material that helps meet the needs of the human body. Poultry meat plays an essential role in the harmonious development of the human body and is considered an indispensable part of a balanced diet. Consuming turkey meat helps strengthen the immune system due to the tryptophan it contains. The technology for producing chicken and turkey sausages has proven to be efficient and easy. The main difference between the two varieties is their storage stability and sensory profile (distinct smoky aroma), both of which depend on the critical stage of heat treatment/smoking. Poultry meat (especially turkey) is a valid alternative to red meat, offering a final product with adequate physicochemical and microbiological quality, adapted to current nutritional requirements.

