

# COMPARATIVE STUDY OF CONVENTIONAL AND VACUUM PACKAGING ON THE QUALITY OF TURKEY BREAST STORED UNDER REFRIGERATION

**D.I. Marcu<sup>1</sup>, L. Stef<sup>1</sup>, N. Corcionivoschi<sup>1,2</sup>, I. Pet<sup>1</sup>,  
C. Julean<sup>1</sup>, D. Dronca<sup>1</sup>, M. Neagu-Nicula<sup>1</sup>,  
C. Zoican<sup>1</sup>, L.E. Olariu-Jurca<sup>1</sup>, A. Marcu<sup>1\*</sup>**

<sup>1</sup>*Faculty of Bioengineering of Animal Resources, University of Life Sciences"King Mihai I" from Timisoara, Calea Aradului, No.119, 300645, Timisoara, Romania*

<sup>2</sup>*Bacteriology Branch, Veterinary Sciences Division, Agri-Food and Biosciences Institute, Belfast BT4 3SD, Northern Ireland, UK*

*\*e-mail: adelamarcu@usvt.ro*

## **Abstract**

*Our study investigated the influence of packaging method and storage temperature on the stability and shelf life of turkey meat under refrigeration. The samples consisted of turkey breast packed in clipped polyethylene bags (A) and vacuum-packed bags (B), then stored at temperatures between 2 and 4°C. Quality was evaluated over a 10-day period through organoleptic examination and physicochemical determinations (pH, volatile nitrogen compounds, and water-holding capacity). The results showed that vacuum packaging, combined with lower storage temperature (2°C), had a favorable effect on sensory attributes and physicochemical indicators. Thus, shelf life was extended, and both sensory and physicochemical quality were better maintained compared to conventional packaging. In addition, vacuum-packed samples exhibited lower water-holding capacity values.*

**Key words:** turkey breast, water holding capacity, pH, packaging, refrigeration