

EFFECT OF THE PACKAGING METHOD ON THE SENSORY AND MICROBIOLOGICAL PROPERTIES OF BROILER CHICKEN BREAST MUSCLES STORED IN CONTROLLED ATMOSPHERE

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Abstract. The aim of the present study was to determine the sensory and microbiological (total microbial count) properties of broiler chicken breast meat stored in controlled atmosphere (95% nitrogen, 5% oxygen) at 2°C for 5 to 25 days. The samples were Nordfilm–Nordform-packed or left unpacked. The results of the study showed that the sensory quality of meat (especially aroma, juiciness and tenderness) deteriorated when the time of cold storage was prolonged to 20 days. The rate of these undesirable changes was faster in unpacked samples than in packed ones. A microbiological analysis of breast muscles, based on total microbial count per g, indicated that microbial contamination was at a safe level in packed samples stored under controlled atmosphere conditions for 20 days, and in unpacked samples stored for 15 days.

Keywords: chicken breast muscles, controlled atmosphere packaging, sensory and microbiological quality.