

**EVALUATION OF SLAUGHTER PERFORMANCE
AND CARCASS TRAITS
IN POULTRY FED *Hermetia illucens* - BASED DIETS**

**Larisa CAISIN, Dumitru MALENCHI, Ludmila BIVOL,
Ana RAILEANU, Vitalie AGAPII,
Al Khatib Jihad Abd Aljabar HASSAN**

Technical University of Moldova, 168 Ștefan cel Mare Blvd, 2004,
Chisinau, Republic of Moldova

Corresponding author email: larisa.caisin@mpasa.utm.md

Abstract

*The rising demand for sustainable protein sources in poultry production has highlighted insects as promising feed alternatives. This study assessed the effects of dietary inclusion of Black Soldier Fly (BSF) larvae on slaughter performance and carcass traits in broilers. Birds were assigned to a control group and three experimental groups receiving 2.0%, 3.5%, or 5.0% *Hermetia illucens* larvae meal. Haematological and biochemical parameters remained within physiological ranges, indicating normal health and metabolic status. Experimental lines showed improved carcass composition, with increased breast muscle weight, progressive sternum growth, and enhanced thigh and shank musculature. Combined hip and thigh weights and shank muscle mass were higher in experimental groups. These results demonstrate that BSF larvae can be safely incorporated into broiler diets, supporting growth, carcass yield, and meat quality. Furthermore, the experimental lines exhibited superior muscular development and carcass traits, suggesting their higher suitability for meat production. The findings highlight the potential of insect-based diets to enhance sustainable poultry production without compromising animal health or product quality.*

Key words: *Black soldier fly, *Hermetia illucens*, broiler chickens, carcass traits, slaughter performance.*