Evaluation of Slaughter Performance and Carcass Traits in Poultry Fed *Hermetia illucens*–Based Diets

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Abstract

Efficient and environmentally friendly feed production is crucial for advancing sustainable livestock farming. With the global demand for animal protein rising, the livestock sector faces increased competition for feed resources, necessitating the exploration of alternative dietary ingredients. Growing interest in sustainable protein sources has positioned insect-based feeds, particularly *H. illucens* larvae, as promising substitutes for conventional feedstuffs. This study investigated the impact of *H. illucens*–based diets on slaughter performance and carcass characteristics in broiler chickens. Chicks were fed diets containing varying levels of *H. illucens* larvae meal, and parameters such as final body weight, dressing percentage, carcass yield, and the relative weights of breast, thigh, and drumstick muscles were evaluated. The results showed that appropriate inclusion of *H. illucens* meal did not adversely affect overall growth performance or carcass yield. Additionally, an increase in breast muscle proportion was observed, indicating potential improvements in meat quality. These findings highlight *H. illucens* larvae as a sustainable and effective protein source for poultry nutrition, with positive implications for both the poultry industry and resource-efficient animal production.

Keywords

Hermetia illucens, broiler chickens, slaughter performance, carcass traits, sustainable poultry nutrition.