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# THE EFFECT OF PROTEASE ON PRODUCTIVE AND SLAUGHTER TRAITS IN BROILER CHICKENS

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**Abstract:** Carcass conformation is a very important parameter in assessing the overall appearance and meatiness of broilers. This study evaluates the effect of protease supplemented to reduced protein diets on production traits, dressed carcass weight and conformation measures in fast-growing Cobb 500 and slow-growing Master Gris broilers over a fattening period of 49 days. At slaughter, the following measurements were taken: pre-slaughter body weight (BW), conventionally dressed carcass weight and abdominal fat weight. Following carcass dissection into primal cuts, absolute conformation values, including metatarsus length (ML), keel length (KL), breast depth (BD), breast angle (BA) and thigh girth (TG), were determined. For carcass conformation evaluation purposes, index values of carcass conformation measures BW/ML, BW/KL, BW/BD and BW/TG were identified. Genotype and sex had a significant effect on dressed carcass weight and all conformation measures, whereas the effect of different protein levels in protease-supplemented diets was significant only in Master Gris, for metatarsus length and the following indices: BW/ML, BW/KL and BW/TG.

**Key word:** broilers, productive traits, carcass weight, carcass conformation.

## Introduction

Modern chicken meat production involves hybrids known for their excellent meat quality and use of diet formulations that can ensure high meat yields and optimum meat quality.

In the past decades, the goal of broiler industry has been to obtain improved broiler performance in a minimum of time. In order to enhance production traits, broilers should be fed diets that can satisfy all their nutrient requirements. In recent years, in order to achieve maximum nutritional quality of broiler meat, increasing attention has been paid to the use of slow-growing strains,