Proceedings of the 4th International Congress
New Perspectives and Challenges of Sustainable Livestock Production
October 7 – 9, 2015

EFFECT OF DIETARY PROTEASE SUPPLEMENTATION ON CARCASS WEIGHT AND DRESSING PERCENTAGE OF BROILERS

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Original scientific paper

Abstract: This paper presents research results on the effect of protease supplementation of reduced crude protein broiler diet on carcass weight and dressing percentage of two broiler genotypes: fast-growing Cobb 500 and slow-growing Master Gris. Complete feeds for broilers in experimental groups E-I and E-II contained 4 and 6% less crude protein than the control (C), and were supplemented with protease (Ronozyme Pro Act) at a concentration of 0.2 and 0.3%, respectively. At 49 days of age i.e. at the end of the experiment, 10 male and 10 female broilers of both hybrids were randomly selected from each experimental group and slaughtered. Upon slaughter, conventionally dressed, ready-to-roast and ready-to-grill carcass weights and abdominal fat weight were measured. These data and body weight at slaughter were used to calculate dressing percentages and abdominal fat percentage. The results showed a significant effect of genotype and no effect of dietary treatments on carcass quality traits.

Key words: broilers, protease, dressing percentage, abdominal fat.

Introduction

Broiler meat quality is dependent on a large number of factors, primarily genotype and nutrition. Modern broiler hybrids, fed complete feeds containing all necessary nutrients, exhibit a very rapid growth rate, resulting in high amounts of meat produced over a relatively short period of time. As reported by *Leeson (2007)*, modern broiler hybrids are characterized by a very high growth rate and low feed conversion, while metabolic diseases, leg problems and increased fat deposition are common occurrences. One of the most important nutritional requirements for optimum animal performance is to provide adequate dietary protein levels (*Bregendahl et al., 2002*). Today, broiler feeds are mostly based on