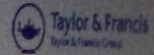


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RESEARCH ARTICLE

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Growth performance and meat quality of broiler chickens on diets containing Keratinase-treated and untreated feather meal-based diets

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ABSTRACT

We evaluated the growth performance and meat quality parameters of broiler chickens fed keratinase-treated and untreated feather meal-based diets using Ross 308 chicks. Seven treatments were used: birds in treatment 1 were not given any feather meal-based diets. Treatment 2–4 birds were fed 8%, 16% and 24% untreated feather meal-based diets, while treatment 5–7 birds were fed 8%, 16% and 24% keratinase-treated feather meal-based diets. Performance parameters and cost-benefit analysis were carried out. The use of keratinase improved the ash and nitrogen-free extract contents of the feather meal. One-way analysis of variance revealed differences ($P < 0.05$) in the growth performance parameters, carcass characteristics and meat minerals with the exception of Phosphorus. Organoleptic parameters were not influenced ($P > 0.05$) by the treatments except appearance and flavour. Our study revealed that, feather meal-based diets could be used as a protein source in broiler chickens nutrition up to 24%.

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Enzyme treatment; essential and non-essential amino acids; profitability; organoleptic properties; feather meal

