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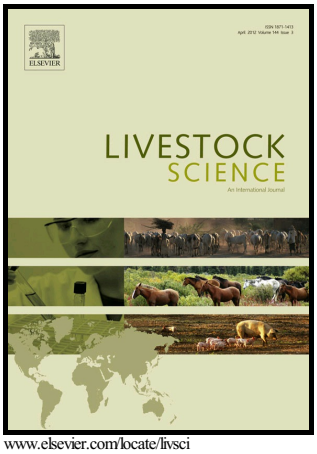

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Effect of different exogenous proteases on growth performance, nutrient digestibility, and carcass response in broiler chickens fed poultry by-product meal-based diets for 35 d

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A B S T R A C T

This study was conducted to examine the effect of different proteases with varied optimum pH range (acid and neutral) on growth performance, nutrient digestibility, and carcass characteristics of broiler chickens fed poultry by-product meal-based diets. The acid protease contained 50,000 U/g and the neutral protease contained 25,000 U/g of premix. The broiler chickens (n = 200) were assigned to 5 treatments with 4 replicate pens per treatment and 10 broiler chickens per pen in a completely randomized design. Five diets were iso-energetic and iso-nitrogenous (metabolizable energy, 2,850 kcal/kg; crude protein, 20%) and broiler chickens had ad libitum access to diets for 35 d. A corn-soybean meal-based negative control (NC) diet was formulated on digestible amino acid basis. A positive control (PC) corn-soybean meal-based diet containing 3% poultry by-product meal was formulated on digestible amino acid basis, and it was supplemented with acid protease mix (80 g/t; PC-A), neutral protease mix (160 g/t; PC-N), or 50/50 combination of the two (120 g/t; PC-C). Overall feed intake was not affected by any of the treatment. However, broiler chickens fed