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Feeding Restriction with Cassava Flour on Carcass Composition of Broilers

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Abstract

In order to promote poultry farming in resource-limited rural areas, the effects of feeding restriction with cassava flour on the carcass composition of broilers was studied. After three weeks on a restrictive diet (step 1), the broilers were re-fed during four weeks according to their physiological needs (step 2). In total, 75 four-weeks old chicks were randomly divided into three lots of 25 subjects. Lot I (control) is fed without cassava flour. The lots II and III are fed with diets containing respectively 10 and 30 % of cassava flour, with energetic and protein density of 85 and 70 % of the control. Eight broilers of each lot have been randomly selected and slaughtered at the end of each step. At the end of the restrictive step, the carcass yields and the weights of the digestive tracts are 67.1, 66.3, and 64.7 % and 178.5, 170.0, and 113.3 g respectively for the lots I, II, and III with a significant difference ($p < 0.05$) between lot I and III and then between lots II and III. After 4 weeks of re-feeding, the lots I, II, and III had respectively 69.9, 73.2, and 67.7 % of carcass yield as well as digestive tract weights of 178.3, 180.8, and 156.0 g. The carcass yield had been entirely made up ($p < 0.05$) to the broilers previously submitted on a restrictive diet. However, the weight of the empty cold carcass was not fully compensated ($p < 0.05$). It appears from the present study that cassava flour can partially replace maize corn under alternating restrictive feeding conditions in broilers.

Keywords: Broiler, carcass productivity, cassava flour, compensatory growth