Growth performance, haematological and serum biochemical indices of broiler chicken fed cassava (Manihot esculentum crantz var. umucass 36) composite meal

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Abstract

An experiment was conducted to examine the growth performance, haematological indices and serum biochemistry of broiler chicken fed cassava (Manihot esculentum crantz var. UMUCASS 36) composite meal. One hundred and fifty Arbor Acre broiler chickens were randomly assigned to five treatment diets replicated into three of ten birds per replicate in a completely randomized design. The cassava root was washed, peeled and chopped into small pieces. This was oven dried and milled to form cassava root meal. The harvested leaf, petiole and tender stem was chopped, oven dried and milled as cassava foliage meal while the cassava composite meal was a mixture of the root meal and foliage meal at the ratio of 10:1. This was used to formulate straight diets designated A, B, C, D and E at levels of inclusion of 0, 5, 10, 15 and 20% respectively. The final weight and total weight gain were significantly (P<0.05) different across the diets but followed the same pattern with broilers on diet B having superior weights (1865.33g and 1740.67g) while others decreased as level of inclusion increased. Broilers on diet B had the least feed conversion ratio (1.89) followed by broilers on diet A (2.15) while others were comparable. The haematological indices fell within the normal range, except mean corpuscular haemoglobin. The serum biochemistry differed significantly (P<0.05) in all the measured parameters. Total protein (4.03g/l) and globulin (2.63g/dl) were highest in broilers on diet B and least values of urea (16.00 mg/dl) and alkaline phosphatase (64.75μ/l). In conclusion diet B was best considering the growth performance, haematology and serum biochemistry of the broiler chickens fed cassava composite meal.

Keywords: haematology, serum, digestibility, cassava composite