Effect of Different Inclusion Levels of CRINA® Poultry Plus as Replacement for Antibiotic Growth Promoters on the Performance of Broiler Chickens Reared under Field Conditions in Nigeria

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Abstract

A total 396 day old Ross broiler chicks were used in a feeding trial to evaluate the response of broiler chickens fed diets supplemented with different levels of CRINA® Poultry Plus, as replacement for AGPs. Chicks were allotted randomly to six treatments each replicated thrice, with 22 chicks per replicate. CRINA® Poultry Plus was included at 0g, 30g, 35g and 40g/100 Kg diet representing T1-T4 respectively while T5 and T6 had Oxytetracycline and water-grade Neocyrril plus respectively. Data was collected on growth performance, haematology, liver function, ileum and ceacum microbes, carcass quality, tibia bone quality, and litter quality. All data collected were subjected to analysis of variance and significant differences among treatment means were compared using the Dunnett test of significance. In the starter phase, broilers fed diet containing Oxytetracycline had significantly (P<0.05) highest values for final weight, weight gain, feed consumption, and better feed conversion ratio. Significant (P<0.05) differences were observed for albumin and blood urea nitrogen while ALT, ALP AST were not significantly (P > 0.05) different. Birds fed levels of CRINA® Poultry Plus had significantly higher bone dry matter and bone ash than birds in the control group and on antibiotics. There was a significant (P < 0.05) increase in dry matter and a significant decrease in excreted nitrogen in the litter for treatments containing CRINA® Poultry Plus. CRINA® Poultry Plus did not improve growth in broiler chickens; it however significantly improved bone quality and litter quality which have positive implication on the health of birds.

Key words: CRINA® Poultry Plus, Antibiotic growth promoter, Performance, broiler chickens.