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Performance and Antibiotic Residues in Organs and Meat of Broiler Chickens Fed Supplements of Three Phytogetic Plants

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Abstract

A biological experiment was conducted to study the effect of *Chromoleana odorata*, *Azadirachta indica* and *Spondias mombin* as alternative to antibiotic growth promoter on broiler production, performance and antibiotics residue with eight weeks old broiler chicks which were randomly allotted to six dietary treatment groups in a completely randomised design (CRD). Each treatment group contained 44 birds and further divided into four replicate groups of 11 birds each. Fresh *Chromoleana odorata*, *Azadirachta indica* and *Spondias mombin* leaves were plucked, the leaves were removed from the stalk, allowed to wilt at room temperature by air drying and milled before adding and formulated with the feed at the rate of 0.5 % for treatment 3 to 6. Treatment 1 (negative control) in which birds were not giving any vaccination or prophylactics. Treatment 2 (positive control) birds were given normal prophylactics (that is antibiotics and drugs) and normal vaccination schedule was used. Results showed that use of antibiotics in raising broilers show a level of antibiotic residue in the meat tissue and organ as compared to the control treatment T1 (negative control) and other dietary treatments that were fed with three different phytogetic plants (Treatment 3 – 6). Also the result of performance characteristics in starter broiler showed that the phytogetic plant as feed additives in poultry diet were inconsistent whereby highest mean values were recorded in final weight (431.5 g), feed intake (27.9 g) and weight gain (14.0 g). While other parameters like feed conversion ratio and mortality were not significantly ($p > 0.05$) influenced by the experimental diets. But in finisher phase of broiler, all parameters were significantly ($p < 0.05$) influenced and highest mean value was recorded. It is now concluded that phytogetic plants as feed additives in broiler ration is recommended to be used as an alternative to the use of antibiotics, vaccines and other prophylactics for the control of antibiotic residue.

Keywords: Antibiotic residues, broiler chickens, meat, organs, performance, phytogetic plants