

Executive Summary of the research project funded by SAURES in the year January, 2018-December, 2019

EFFECT OF USING TURMERIC AND GARLIC POWDER IN BROILER RATION AS A REPLACEMENT OF ANTIBIOTIC ON GROWTH PERFORMANCE, CARCASS TRAIT & BLOOD PROFILE

Dr. Md. Anwarul Haque Beg*

Executive Summary

Natural medicinal herbs like garlic and turmeric could be used in broiler ration to produce safe meat. The research work was undertaken to determine the growth performance, carcass trait and blood profile of broiler chicken by feeding turmeric and garlic powder as alternative to antibiotics. The research work was conducted at Sher-e-Bangla Agricultural University Poultry Farm for a period of 28 days in the month of November, 2018. 300 Cobb DOCs were divided into 5 treatments having 3 replications (20 chicks in each). The treatments were: T₀ = (Control), T₁ = (Antibiotic), T₂ = 0.5% of Garlic Powder (GP), T₃ = 0.5% of Turmeric powder (TP) and T₄ = 0.25% GP and 0.25% TP. Starter diet had 21.0 % CP and 3000 ME Kcal/Kg and Grower diet had 19.0 % CP and 3050 ME Kcal/ Kg. Growth performance, carcass trait and blood profile parameters were taken. Statistical package program SPSS version-16 was used for data analysis. Significant difference (P<0.05) was found among treatments in feed consumption; all treatment groups consumed higher amount of feed than antibiotic group (T₁). No significant difference (P>0.05) was found in LW, FCR, Livability, DP; but all these values were comparatively better in 0.5% TP (T₃) group than others. Comparatively lower glucose and cholesterol were found in 0.5% TP group (T₃). Liver, heart, gizzard, intestine, spleen and bursa weight were not significantly (P>0.05) affected. Significantly (P<0.05) lowest abdominal fat was found in 0.5%TP (T₃) and highest in control group. No significant difference (P>0.05) was found in Hb, RBC, WBC, Monocytes, Eosinophil, HCT/ PCV, MCV and MCHC values. T₂ (GP 0.5%) had shown immune stimulatory effect due to presence of significantly (P<0.05) higher Neutrophils and lymphocytes; but comparatively better production performance was found in 0.5% TP.

* Professor, Dept. of Poultry Science, Sher-e-Bangla Agricultural University, Dhaka-1207