

Effect of yeast (*Saccharomyces cerevisiae*) supplementation on the growth performance, haematological and serum biochemical parameters of broiler chicken

Lawrence-Azua, O.O. Awe, A.O. Saka, A. A. Okotie, U. J. Awodele, O. A. Isegbe, E. I. pp 191-199

Abstract

A total number of one hundred and sixty five (165) unsexed day old Cobb® 500 broiler chicks were randomly allotted into five (5) dietary groups in a completely randomized design to evaluate the effect of yeast (*Saccharomyces cerevisiae*) supplementation on the growth performance, haematological and serum biochemical indices of broiler chicken. The experiment lasted for 56 days. Yeast was incorporated into the experimental diets at varying levels of 0.0, 1.5, 2.0, 2.5 and 3.0% to formulate five dietary treatments. Each treatment group consisted of three (3) replicates of eleven (11) birds per replicate. Data were collected on the growth performance and blood samples were collected and utilized in assessing haematological and serum biochemical indices of broiler chicken. Results showed that yeast supplemented diets had significantly ($P<0.05$) influenced growth parameters. Although there were no significant difference ($P>0.05$) in birds fed yeast supplemented diets but those in 3% yeast supplemented diets recorded the highest numerical values in total weight gain (2044.80 g/b) and the best feed conversion ratio (1.94). Haematological parameters such as Packed cell volume, White blood cell, Heterophil, Monocytes, Eosinophil and Mean corpuscular haemoglobin concentration were significantly ($P<0.05$) influenced by the dietary treatments unlike the mean corpuscular haemoglobin, mean corpuscular volume, lymphocyte, haemoglobin and Red blood cells count. Significant differences ($P<0.05$) were observed on all the serum biochemical indices except the total protein, globulin and glucose. Nevertheless, values obtained in this study fell within the normal range recommended for healthy broiler chickens. Conclusively, yeast can be supplemented up to 3.0% in the diets of broiler chicken without any detrimental effect on the performance and the health status of broiler chicken.

Keywords: Yeast, Broiler chicken, Growth and Blood profile

Federal College of Animal Health and Production Technology, P. M. B. 5029, Moor Plantation, Ibadan.

Corresponding Author: saka.azeez@gmail.com