ASSESSMENT OF THE NUTRIENT CONTENTS OF BROILER STARTER AND FINISHER DIETS IN NIGERIA

*Malomo, G. A.¹, Suleiman, Z. G.², Bolu. S. A.³ and T. A. Egberuare¹
¹Livestock Research Division, Coordination of Technical Research Programme,
²Bureau of Gender and Youths in Agricultural Research & Innovation
Agricultural Research Council of Nigeria (ARCN), Abuja
³Animal Production Department, University of Ilorin, Ilorin, Nigeria
*digabby@yahoo.com

ABSTRACT
The study was conducted to assess the proximate composition and amino acid profiles of six (6) commercial broiler starter and finisher diets. Four samples of each feed type were procured from different feed vendors within Abuja metropolis and subjected to proximate and amino acid analyses. The dry matter, crude protein, crude fibre, crude fat and ash contents of broiler starter and finisher diets were observed to be within the levels of 92.2 – 94.4%, 21.5-24.6%, 4.0 – 8.7%, 5.5 – 8.7% and 7.9 – 12.0% and 91.64-94.38%, 19.06-22.63%, 4.41-8.77%, 5.37-8.41% and 7.87-11.25%, respectively, and were within the ranges quoted on the labels of the feeds analyzed. The results also showed that there was no significant (P>0.05) difference in the crude protein (4), arginine, methionine, isoleucine, threonine and valine contents of the broiler starter diets compared with the values in the nutrient tables of NRC. Except for methionine+cysteine which was lower (P<0.05), most of the finished starter diets had significantly (P<0.05) higher histidine, lysine, proline, phenylalanine, phenylalanine+thyrocinie and glycine+serine values than those recommended by NRC for broilers aged 1-3 weeks. Similarly, all test broiler starter diets had superior (P<0.05) CP and amino acids profile compared with the NRC recommendation for broilers aged 3-6 weeks. While crude protein, arginine, isoleucine, methionine, lysine, threonine, methionine+cystein and phenylalanine contents were similar (P>0.05), leucine, valine, phenylalanine+thyrocinie and glycine+serine values of the test finisher diets were significantly (P<0.05) different from NRC recommendation for broilers aged 3-6 weeks. Except for arginine, isoleucine and threonine which were similar (P<0.05) to NRC requirement table for broilers aged 6-8 weeks, CP and the other amino acid vatus of the test finisher diets were higher (P<0.05). Although, estimated chemical scores of analyzed diets revealed a generally high trend, methionine plus cystine appeared limiting in the broiler starter diets compared with recommended levels for birds aged 1-3 weeks; threonine, valine or isoeucine may be limiting in some broiler finisher diets when compared with requirement for broilers aged 3-6 weeks.

Contact us for full article. Email: info@agrosciencejournal.com