further studies on protein identification, sequencing of bands and studying the co- relation of genetic diversity and their morphological characters are essential.

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Effects of Dietary Energy and Rice Bran Levels on Growth Performance and Nutrient Retention of Broiler Chicken

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Broilers increase their feed intake when dietary energy level is reduced. The objectives of this study were to determine whether the adverse effects of high dietary rice bran (RB) levels on feed intake and the performance of broilers could be mitigated by altering the dietary energy levels. A completely randomized design experiment in 3*2 factorial arrangements was conducted. Ninety six broiler chicks in 24 floor pens were fed one of the six experimental diets with three dietary energy (3000; C-, 3200; C, and 3400 kcal/kg; C+) and two RB levels (20 or 40%) *ad libitum* from day 21-42. A three day total collection trial was conducted to determine the retention of N, dry matter (DM) and ash. Feed intake (FI) was not significantly ($P>0.05$) affected by the dietary RB levels. A significant linear relationship (FI=254- 0.0397 x Kcal/Kg' R^2= 0.81) was found between the FI and dietary energy levels. Birds within a given growth stage maintained a fairly constant daily energy intake by adjusting the FI. Live weight on day 42, weight gain, feed conversion ratio (FCR) and the retention of ash of the broilers fed 40% were significantly low, compared to the birds fed 20% RB. FCR of the birds given C- diet was significantly higher (2.03) than those fed C (1.93) and C+ diet (1.92). Cloacal fat percentage was tended ($P=0.05$) to be low for the birds fed C diet (1.79%) compared to those fed C- (1.93%) and C+ (2.13) diets. None of the adverse effects associated with high dietary RB (40%) could be corrected by altering the dietary energy level. It was concluded that 3200 Kcal ME/Kg is the best dietary energy concentration for broiler finishers under local conditions as it lowers the FCR and cloacal fat contents.

Keywords: Broiler, energy, rice bran, performance, nitrogen retention