

EFFECT OF IMPROVED LOCAL FISH MEAL ON GROWTH PERFORMANCE OF BROILER CHICKENS

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Fish meal is one of the precious and expensive animal protein supplements in poultry rations. However, the utilization of local fish meal (LFM) is limited because of its poor quality mainly due to contamination by pathogens. Therefore, this study was conducted to find out the possibility of using improved LFM in commercial broiler rations. Three nutritionally comparable diets (untreated LFM, LFM improved with acidifier and probiotics) were formulated in three-phase-feeding programme; starter (1-14 days), grower (15-28 days) and finisher (29-41 days). 198 day-old broiler chicks (Cobb - 500) were randomly allocated to three dietary treatments in a Completely Randomized Design (CRD) with six replicates, each with eleven birds. Body weights and feed intakes were measured weekly and weight gain and feed conversion ratio (FCR) were calculated. On day 41, three birds from each pen were sacrificed and abdominal and cervical fat, livers and dressed carcass were weighed. Blood samples were collected to measure the antibodies for bacterial toxins using indirect Enzyme-Linked Immunosorbent Assay. The data were analyzed using one way Analysis of Variance (ANOVA) in SAS and means were separated by Tukey's Studentized Range Test (TSRT). Birds fed with probiotic treated LFM gained higher body weights ($p < 0.05$), compared to the birds fed with untreated LFM. Further, weight gains of birds fed with probiotics and acidifier treated LFM were improved by 6% and 5%, respectively. Feed intake, FCR, dressing percentage, fat content, liver weights and toxin antibodies were not different ($p > 0.05$) among the birds fed with different diets. Thus, it can be concluded that inclusion of LFM ensiling with acidifiers or probiotics is beneficial and use of improved LFM with probiotics is the most effective in enhancing the growth performance of broiler chicken.

Keywords: Acidifier, Broiler, Local fish meal, Probiotic