

# SUITABILITY OF PALM KERNEL CAKE AS A FEED INGREDIENT IN BROILER RATIONS

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Palm (*Elaeis guineensis*) kernel cake (PKC) is an agro-industrial by-product and a potential feed ingredient for poultry feeding. Since there is only a handful of information available about the use of PKC in poultry feeding, this study was conducted to investigate the possibility of using PKC in commercial broiler rations. Five nutritionally comparable diets with different levels of PKC (0%, 5%, 10%, 15% and 20%) were formulated for a two phase broiler feeding programme, starter (0-21 days) and finisher (22-42 days). Three hundred, day-old chicks (Cobb-500) were randomly allocated into five treatment diets, in a Completely Randomized Design with four replicates, each with 15 birds. Feed intake and body weight measured weekly, were used to calculate weight gain and feed conversion ratio (FCR). At the age of 42 days, five birds from each pen were randomly selected and slaughtered. Total fat content, liver weight and dressed weight of each bird were recorded. Gut contents were collected from the mid-point of the small intestine and gut viscosities were measured. The data were analyzed using Analysis of Variance (ANOVA) procedure in SAS. Body weight gain was significantly less ( $p < 0.05$ ) in birds fed with diets containing 20% PKC compared to 5%, 10% or 15% PKC in starter and total study period. Significantly higher ( $p < 0.05$ ) feed intake was observed in birds fed with diet containing 15% PKC, compared to 0 PKC in starter, finisher and entire study period. Birds fed with 15% or 20% PKC showed significantly higher ( $p < 0.05$ ) FCR compared to the birds fed with 5% PKC in finisher and total study periods. Total fat deposition, liver weight, dressing percentage and gut viscosity were not significantly different ( $p > 0.05$ ) among the birds fed with different diets. Results revealed that PKC is a potential feed ingredient in broiler feeding and it can be incorporated in the broiler rations up to 15% without any adverse effect.

**Keywords:** Broiler performance, Palm kernel cake