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PERFORMANCE OF WEST AFRICAN DWARF (WAD) GOATS FED *PANICUM MAXIMUM* BASAL DIET WITH DIFFERENT SOURCES OF PROTEIN SUPPLEMENTS

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ABSTRACT

An experiment was conducted to compare the performance of West African Dwarf goats fed *Panicum maximum* basal diet and concentrate supplements of palm kernel cake (PKC), soya bean meal (SBM), cotton seed cake (CSC) and brewers dried grain (BDG). Twelve animals were randomized into four groups to represent four treatments and each animal was a replicate. Feeding trial lasted 13 weeks including 3-week metabolic trial. Data included feed intake, weight gain and digestibility of nutrients, feed conversion and protein efficiency ratios. Optimal performance was obtained for animals on SBM ($P<0.05$). This was followed by animals on CSC while animals on BDG had the least. The total dry matter intake (DM1) and crude protein intake (CPI) increased from 485.53 for goats in CSC and 60.46 for animals in BDG to 546.72 and 91.56gd^{-1} in SBM respectively. Digestibility of dry matter (DM) and crude protein (CP) increased from 57.90 and 71.80 for goats in BDG and PKC supplements respectively to 70.02 and 86.74% for those in SBM The weight gain and protein efficiency ratio increased from 19.83 and 0.33 for BDG to 33.36gM and 0.37 for SBM feed supplement respectively, while feed conversion ratio declined from 24.53 for BDG based supplement to 16.39 for goats in SBM supplements. It was therefore, concluded that WAD goats utilized SBM better than CSC, PKC and BDG as supplements to *P. maximum* basal diet

Key words: Brewers dried grain, cottonseed cake, palm kernel cake, soya bean meal, performance, goats.