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UTILIZATION OF CASSAVA PEEL AND RUMEN EPITHELIAL WASTE DIETS BY WEST AFRICAN DWARF SHEEP

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ABSTRACT

Twenty West African dwarf, WAD, sheep were randomly divided into five groups of four sheep. Each group was randomly assigned to one of the 5 dietary treatments which consisted of cassava peels supplemented with 5 graded levels of rumen epithelial waste, REW at ratio 100:0(T1), 95:5(T2), 90:10(T3), 85:15(T4) and 80:20 (T5) respectively, fed with a basal diet of *Pennisetum purpureum* grass in a complete randomized design. The study reported the effects of these dietary supplementation on dry matter intake DMI, body weight gain, N utilization, haematological and biochemical parameters. The general trend of the 100d - study was such that the performance characteristics (g/day) which included dry matter intake DMI, body weight gain, crude protein intake, and N retention (%) increased significantly ($P < 0.05$) across the treatments as the levels of REW supplementation increased. Animals on diets T2 (95:5) to T5 (80:20) had significantly higher ($P< 0.05$) DMI and N retained (g/day/kg$W^{0.75}$) values than those on T1 (unsupplemented 100% cassava peels). Similarly, body weight ($P< 0.05$) gain (g/day) was highest (80.15) in sheep fed diet T5 (80:20) and lowest (14.28) in those fed control diet T1 (100.0). Sheep on (T5) also had significantly higher values ($P< 0.05$) for PCV (41%), RBC (9.25×10^6/ul), Hb concentration (12.5 g/dl) and total protein (7.45 g/dl) than those on other treatments. However, the result of study indicated that supplementation of cassava peel with REW at 20% level (diet T5) highly improved animal performance as evidenced by the outstanding responses (body weight gain 80.15g/day; DMI 71.06 g/day/kg$W^{0.75}$; and nitrogen retention 78.10 g/day/kg$W^{0.75}$) of the fed sheep. This is due to efficient nutrient utilization occasioned by high dietary protein content and palatability of T5 (80:20, cassava peel/REW mixture) diet.

Key words: Cassava peels, Rumen waste, Sheep, Performance.