GROWTH PERFORMANCE AND CAECAL PARAMETERS OF RABBITS FED THREE DIFFERENT TROPICAL BROWSE PLANTS

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ABSTRACT

A 60-day feeding trial was employed to investigate dried leaves and stems of *Acacia saligna, Leucaena leucocephala* and *Moringa oleifera* on the performance, digestibility, nitrogen utilization and caecum characteristics of weaned NZW rabbits. Fifty-four weaned male NZW rabbits (average weight ranged from 785–850 g) were used for study three experimental diets in a completely randomized design were divided into three groups. The dried *A. saligna, L. leucocephala* and *M. oleifera* leaves and stems were ground and incorporated separately at level of 15% in diets for each group (eighteen rabbits per each). The results of digestibility coefficients, nutritive value, nitrogen utilization, and dry matter intake of rabbits fed shrubs of *M. oleifera and L. leucocephal* were significantly (P<0.05) higher than those fed shrubs of *A. saligna*. Moringa diet resulted in an average weight gain of 22.7 g/animal/day, comparable (P<0.05) to the value of 13.2 and 20.1 g/animal/day for Acacia and Leucaena diets respectively. But Acacia diet had the lowest average weight gain (13.2 g/animal/day). Feed conversion and protein efficiency ratios were significantly (P<0.05) better for rabbits fed on the Moringa diet (4.5 and 1.4) than those fed on Acacia and Leucaena groups (6.68 and 0.92) and (4.9 and 1.2), respectively. Caecal ammonia-N concentration was significantly (P<0.05) higher for animals fed *L. leucocephal* than those fed *M. oleifera* and *A. saligna diets*. However, VFA's concentration was significantly (P<0.05) higher for rabbits fed *M. oleifera* than those fed *A. saligna*.

Total microbial count in caecum, *E.coli* and *lactobacillus* bacteria, were significantly ($P<0.05$) lower for rabbits fed *M. oleifera followed by L. leucocephal*. Based on the results, the high potentials of locally available fodders as Moringa and leucaena appeared promising as protein source for rabbits with a better prospect of utilization. This may be added an asset in developing countries where less protein sources are available for animal consumption.

Keywords: *Acacia saligna, Leucaena leucocephala*, *Moringa oleifera*, performance, caecal parameters, rabbits