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Reproductive Performance of West African Dwarf Goat Fed with *Moringa oleifera*

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Abstract

The study evaluated the reproductive performance of West African Dwarf (WAD) does fed with *Moringa oleifera* and *Gliricidia sepium* as inadequate nutrition undermines ruminants in representing their full genetic potential. A total of thirty WAD goats, consisting of twenty-five matured does and five bucks were used for this study. Using a balanced randomised design, the does were divided into five experimental treatments based on the feed combination ratio (*i.e.* 100:0 (T1), 75:25 (T2), 50:50 (T3), 25:75 (T4), 0:100 (T5) of *G. sepium* and *M. oleifera* respectively). Each treatment had five does as replicates with an average weight of 12 kg. We observed that crude protein intake (CPI) by does' was greatly influenced by levels of *M. oleifera* in their diets. This invariably enhanced the conception rate of does and Average weaning weight of kids (offspring) in treatments with higher level of *M. oleifera*. Does fed with the highest level of *M. oleifera* had 100 % conception, with conception rate decreasing as *M. oleifera* level decreases. Highest weaning weight of 4.98 kg was recorded for kids from the does fed 100 % *M. oleifera* after three months. Gestation length in does, litter size at parturition, birth weight of kids and milk uptake, among other reproductive traits assessed, were not significantly different between the treatment groups. However, the average birth weight of kids from does fed high level of *M. oleifera* was 300 g higher than their counterparts with $\leq$25 % *M. oleifera* inclusion. This indicates that improved conception rate, birth weight and weaning weight of kids can be achieved by including high levels of *M. oleifera* in the diets of WAD does.

Keywords: Browse plant, estrus synchronisation, nutrition, productivity, prolificacy

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