

ABSTRACT

To study the performance of Small East African goats fed Rhodes grass(*Chloris gayana*) hay supplemented with 5 levels of *Maerua angolensis* (0, 15, 20, 25, 30g DM W^{0.75}) 20 goats were divided into five groups and randomly assigned five treatments in a randomized complete block design based on initial body weight (10.3±1.3kg). The treatment diets were offered twice daily at 08.00 and 14.00 hours with *C. gayana* and clean water were available *ad libitum*. Feed intake increased with increasing level of *M. angolensis*, whereas, average daily gain, digestibility of DM, CP, NDF and rumen NH₃N were the highest on 20g supplementation level. It is concluded that *M. angolensis* is a potential protein source and can be supplemented at 124 gd⁻¹ (or 20% of metabolic weight, i.e. 20gDM/kgW^{0.75}) for growing Small East African goats.

Key words: average daily gain, digestibility, growing goats, nitrogen balance, tree forage, voluntary feed intake