## **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<sup>0.75</sup>) 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 NH<sub>3</sub>N 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<sup>-1</sup> (or 20% of metabolic weight, i.e. 20gDM/kgW<sup>0.75</sup>) for growing Small East African goats.