ABSTRACT

Prosopis juliflora plant is readily available in arid and semi-arid lands (ASALs) of Kenya, producing mature pods throughout the year. However, its inclusion in livestock diets compromises performance due to anti-nutrients which can be reduced using fermentation. At Tatton Agriculture Park, Egerton University, a study was done to investigate the effect of inclusion of graded levels of fermented ground mature Prosopis juliflora pods (FGMPP) replacing maize in the diets of growing rabbits on growth and economic benefit. Sixty (60), 42-day old rabbits weighing 0.5 ± 0.04 kg (mean ± SD) were housed in cages measuring (75 * 55 * 40) cm; three rabbits of the same sex per cage. In a randomized complete block design (RCBD) 5 diets; control (formulated standard grower diet), 15% unfermented ground mature pods of Prosopis juliflora (UGMPP), 30% UGMPP, 15% FGMPP and 30% FGMPP replacing maize in formulated standard grower diets were offered in four replicates per treatment (six males and six females). Analysis data was done using the general linear model (GLM) of Statistical Analysis Systems (SAS). Tukey's range procedure at (p?0.05) significance was used to separate means. The results show that 30% FGMPP inclusion resulted in a superior (p?0.05) average daily gain (ADG) and economic benefit (p?0.05). The study concluded that replacing 30% maize in diets of grower rabbits with FGMPP will make economic sense. This will ensure sustainability in rabbit production, improvement of farmer livelihoods, and improvement of food and nutritional security to the Kenyan human population.