

Abstract

Semi-arid region of Kenya is faced with inadequate quantity and low quality of livestock feeds. Research was conducted in the semi-arid region of eastern Kenya to investigate the contribution of two legumes, Seca (*Stylosanthes scabra* cv. Seca) and Siratro (*Macroptilium atropurpureum* cv. Siratro) to seasonal total fodder productivity and nutritive value when intercropped with Napier grass (*Pennisetum purpureum* cv. Bana). The treatments consisted of Napier grass planted as pure stand and intercropped with legumes. During the production phase, the grass and legumes were harvested for dry matter yield after every 8 weeks for a period of four wet seasons and two dry seasons between April 2002 and September 2004. Overall total herbage yield of the mixtures was higher than those of sole fodder grass with the grass constituting the major component of the yield. Seca was more productive and had a relatively stable yield than Siratro. It accounted for higher proportion of total DM yield of 15 - 34% in Napier compared to Siratro which had less than 5% except in the drier season when yield failed. Total DM yield was highest during the short rains of year 2002 and declined thereafter in subsequent seasons and was lowest during the dry seasons. It was observed that crude protein of Napier grass was significantly ($P < 0.05$) enhanced by inclusion of the legume in the intercrop (CP 9.64 - 9.96% of DM) compared to sole Napier grass (CP 8.14% of DM). Napier grass intercropped with Seca was more degradable than sole Napier grass. It can be concluded that Seca formed a better association with fodder grass than Siratro and is recommended for intercropping in the semi-arid region of eastern Kenya.