EFFECT OF POTASSIUM APPLICATION ON YIELD AND FEEDING VALUE OF LEGUME BASED PASTURES IN THE MID COUNTRY OF SRI LANKA

S. Premaratne, G.G.C. Premalal,
E.H. Jayaratne and D. Bandara
Faculty of Agriculture, University of Peradeniya

The objectives of the present study were to investigate the effect of potassium on yield and feeding value of legume-based pastures in the mid country of Sri Lanka. Guinea "A" (Panicum Maximum Jacq:) was established as a pure stand or as three different mixtures with legumes, namely Stylosanthes hamata, Centrosema pubescens and Phaseolus atropurpureus and, followed by the application of potassium (0.30,60 and 90 Kg K_2O/ha), in a randomized complete block design with four replications. Forages were harvested at four weekly intervals and the grass and legumes in the same plot were harvested separately. Dry matter yield and leaf to stem ratio were measured and invitro organic matter digestibility and crude protein

contents were determined in representative samples. Application of potassium had no significant effect on the dry matter yield of grasses. However, dry matter yield of legumes were increased ($p<0.05$) with the application of potassium. Potassium did not have any significant effect on the leaf to stem ratio and invitro organic matter digestibility of both grasses and legumes. Crude protein content of both grasses and legumes were increased ($p<0.05$) with the application of potassium (90 Kg K_2O/ha)

This study was supported by CIDA/NARESA.