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Variable effects of low density shade trees on nutritional quality of natural pasture grass in grasslands have been reported. However, little is known on the effects of isolated shade trees on nutritional quality of understory grasses under Sri lankan conditions. The present study was conducted to investigate the effects of isolated shade trees on nutritional quality of naturally grown carpet grass (*Axonopus compressus*). The study was conducted at the research farm of University of Ruhuna, Kamburupitiya. The dominant overstorey tree species in the site was mango while the understory was dominated by carpet grass. Samples of carpet grass shoots were taken from 2 concentric zones surrounding mango trees. The canopy zone was directly below the tree canopy and open zone was beyond the influence of trees.

Samples were analysed for *in vitro* dry matter digestibility (IVDMD), acid detergent fibre (ADF), neutral detergent fibre (NDF), acid detergent lignin (ADL), cellulose, N, P, K, and Ca. Except IVDMD and NDF, all other quality characters were significantly affected by zones. N, P, K and Ca contents of the grass were increased by 1.7, 1.8, 2.6 and 1.2 times respectively in the canopy zone compared to open zone. Increased nutrient contents in grasses in the canopy zone may be due to increased nutrient uptake from less compacted soils of the canopy zone. IVDMD was not affected by shade in the canopy zone. Therefore, in addition to the shade provided to livestock, isolated shade trees improve the forage quality. The loss of shade trees from grasslands and Pastures, as in currently occurring in tropics, could significantly reduce the nutritional quality of pasture grass.