

COMPARISON OF PANICUM MAXIMUM CV. GUINEA WITH
P. MAXIMUM CV. HAMIL AND
THEIR RESPONSE TO PADDOCK MANURE

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The objective of this study was to compare two cultivars of guinea, viz. Panicum maximum cv. Guinea (VRI 435) and Panicum maximum cv. Hamil and their response to paddock manure using a 2 (cultivars of Guinea) x 2 (levels of paddock manure) factorial, arranged in a randomized complete block design with three replicates. Area of each experimental plot was 3.02 x 2.44 m with a net plot of 1.8 x 1.2 m. Grasses were defoliated at 4 cm above the ground level at a frequency of 35 days. Paddock manure levels were 0 (control) and 10 tonnes/ha/yr. The parameters measured were DM yield, DM percentage, contents of CP, CF, EE, total ash and NFE. The grasses were similar ($P > .05$) in all parameters measured. Neither responded significantly ($P > .05$) to application of paddock manure in any of the parameters measured, due probably to the insignificant amount of N added (42.7 kg N/ha/yr.). Guinea yielded more dry matter at both manure levels, but the yields were not significantly different ($P > .05$) from Hamil due to the high variability between replicates (range 25080 to 32430).

Kg/ha/yr.). DM contents of all treatments were within normal limits (range 20.58 to 21.87%) while the ranges of CP and CF of all treatments were narrow, being 8.20 to 9.00% and 31.94 to 33.24%. Hamil, a more recent introduction to Sri Lanka, appeared inferior compared to the scientifically proven Guinea in this comparison conducted for the first time under local conditions. Further comparisons involving more variables at different locations are suggested.