B-103 Effect of organic manure and ammonium sulphate on the yield and crude protein content of Pusa Giant Napier

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A trial was conducted to study the effect of poultry litter, cattle manure, goat manure and ammonium sulphate on the dry matter yield and crude protein content of Pusa Giant Napier (PGN) grown in the regosols of the Batticaloa region.

Treatments were arranged in a Randomised Complete Block Design. All the organic manures were applied at the rate of 600 kg/ha and ammonium sulphate was applied at the rate of 150 kg/ha respectively at the commencement of trial. PGN was harvested at monthly intervals and fresh weight was taken. Sub samples were taken to measure the dry matter and crude protein content.

The dry matter yield of PGN recorded for poultry litter, goat manure, cattle manure, ammonium sulphate and control were 6234 kg/ha, 2456 kg/ha, 1789 kg/ha, 1652 kg/ha and 1562 kg/ha respectively. The dry matter yield of PGN is significantly ($p < 0.05$) increased by the application of poultry litter compared to other treatments used in this study. The crude protein percentage (on dry matter basis) of PGN for poultry litter, goat manure, cattle manure, ammonium sulphate and control were 15.4%, 15.2%, 15.1%, 15.1% and 14.8% respectively. The crude protein content of PGN is affected neither by the application of organic matter nor ammonium sulphate.

This study suggested that the application of poultry litter may increase the dry matter yield of Pusa Giant Napier. Therefore, poultry manure application may be recommended to improve PGN production in the regosols of Batticaloa region.