

# **Influence of Fertilizer Nutrition and Row Spacing on Productivity and Profitability of Browntop millet (*Brachiaria ramosa* L.)**

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## **ABSTRACT**

A study was taken up to establish optimum fertilizer dose and optimum plant density for obtaining maximum grain as well as fodder yields. The results obtained from the two year study revealed that yield attributing characters, grain yield, fodder yield, plant nutrient uptake, net income and benefit cost ratio were significantly high at 50-25-0 kg NPK/ha as compared to other doses. Among four different row spacings, 60cm row spacing was superior for getting maximum grain yield, plant nutrient uptake, net returns and benefit cost ratio. However, for getting maximum fodder yield, close row spacing of 22.5cm was found to be optimum. Per cent chaffy grains per panicle decreased significantly at 50-25-0 kg NPK/ha and at 60cm row spacing. After two years of experiment, it was found that soil available potassium has shown drastic depletion from initial status compared to soil available N and P<sub>2</sub>O<sub>5</sub> due to maximum plant uptake and absence of potassium application through fertilizer. From this study it was concluded that 50-25-0 kg NPK/ha at 60cm row spacing was found as optimum to maximize grain yield and 50-25-0 kg NPK/ha at 22.5cm row spacing was identified as optimum to maximize fodder yield in light textured soils.

**Key words:** *Browntop millet, Fertilizer levels, Plant density, Productivity and Profitability*