

Optimization of Nitrogen Fertilizer Rate for High Cane and Sugar Yield of Sweet Sorghum in Sandy Loam Soils

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ABSTRACT

The field experiment was conducted for two years to find out the optimum dose of nitrogen for high cane and sugar yield in sweet sorghum in sandy loam soils during *kharif*, 2009 & 2010. The results revealed that all the parameters *viz.*, cane yield, juice yield, sugar yield and total sugar index were significantly influenced by the application of graded doses of nitrogen. Data on plant stand and brix % at harvest showed non significant influence due to application of levels of nitrogen. Both cane yield and sugar yield increased with increasing levels of nitrogen application up to 120 kg ha⁻¹ which was found to be on par with application of 80 kg N ha⁻¹. It can be concluded from the study that the application of nitrogen @ 80 kg ha⁻¹ is economical and optimum for high cane and sugar yield of sweet sorghum in sandy loam soils.

Key words : Juice quality parameters, Nitrogen levels, Sweet sorghum, Yield