

# **Studies on the Effect of Nitrogen Fertilization on Growth and Yield of Sorghum (*Sorghum bicolor*) Varieties during Post Rainy (Maghi) Season**

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## **ABSTRACT**

Field experiment was conducted at Regional Agricultural Research Station, Nandyal during post rainy season (*maghi*), 2011 to study the response of Sorghum (*Sorghum bicolor*) cultivars to nitrogen fertilization under I.D. conditions during post rainy (*maghi*) season. The results indicated that significantly higher values for growth parameters *viz.*, plant height and dry matter production were recorded with Kinnera. However, as regards the dry matter production it was on par with NTJ-4 but significantly superior to C-43. Being at par with Kinnera, C-43 produced maximum number of green leaves per plant which was significantly superior to NTJ-4 at all the stages except at 90 DAS. Higher grain weight per panicle, grain (7274 kg ha<sup>-1</sup>) and straw yields (8923 kg ha<sup>-1</sup>) were recorded with Kinnera whereas higher value for 1000 grain weight was recorded with NTJ-4. All the growth and yield parameters, grain and straw yield was higher with the application of 180 kg N ha<sup>-1</sup> but number of leaves produced were on a par with application of 120 and 150 kg N ha<sup>-1</sup> at 30 and 60 DAS.

**Key words :** Sorghum, Nitrogen levels, Varieties.