



RESEARCH PAPER

Nutrient content, uptake and fertility influenced by sources and levels of sulphur in *Kharif* sesame (*Sesamum indicum* L.)

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Abstract : An field experiment was conducted at the Agronomy Instructional Farm, Chimanbhai Patel College of Agriculture, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar during *Kharif* 2012. Total eight treatment combinations comprised of two sources of sulphur viz., S₁=Elemental sulphur and S₂=Gypsum and four levels of sulphur viz., L₁= 15 kg S ha⁻¹, L₂= 30 kg S ha⁻¹, L₃= 45 kg S ha⁻¹ and L₄= 60 kg S ha⁻¹ were tried in Randomized Block Design with factorial concepts with four replications. Sesame variety GT 2 was used as a test crop. The soil of the experimental field was loamy sand in texture, alkaline in reaction and soluble salt content under safe limit. It was low in organic carbon, available N and S; medium in available P₂O₅, K₂O and DTPA-extractable Fe and Zn and having sufficient DTPA-extractable Mn and Cu status. Application of 45 kg S ha⁻¹ produced significantly higher seed (814 kg ha⁻¹) and stalk (1899 kg ha⁻¹) yields, over other levels of sulphur, however, it was statistically at par with 60 kg S ha⁻¹. Significantly higher content and uptake of N, P and S by seed and stalk and available S content in soil at harvest were recorded with 45 kg S ha⁻¹, however, this treatment was statistically comparable with 60 kg S ha⁻¹.

Key Words : Sulphur, Sesame, Nutrient content, Fertility

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