

Interaction of Sulphur and Micronutrients in Groundnut

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Summary

ON calcareous soil, the experiments have shown that application of elemental sulphur increased the pod and haulms yields, and concentration of nutrients in leaf tissue and their uptake in groundnut. The application of Fe, Zn and Mn further increased these parameters. Elemental sulphur at 20 kg S/ha increased pod yield by 12.7 - 24.2 per cent and haulm yield by 8 - 10 per cent. However, Fe, Zn and Mn applied at 10, 2 and 4 kg/ha respectively increased pod yield by 23 - 24, 15.7 - 18.4 and 19.6 - 20.4 percent respectively. Sulphur application increased the concentrations of N, P, S, Fe, Mn and Zn but reduced Ca in groundnut leaves at podding stage (50 DAE). The uptake of all the macro and micronutrients was however increased due to S application. The Fe, Mn and Zn applications reduced Ca and increased S concentrations in groundnut leaves, but increased the overall uptake of all the nutrients.

Introduction

Sulphur is the fourth major limiting nutrient required by crop plants and as a plant nutrient, it is becoming increasingly important and essential due to continuous use of high analysis NPK fertilisers. In calcareous soil due to high bicarbonate content and leaching of sulphate-S, groundnut shows chlorosis mainly due to the deficiencies of sulphur and