

Research Article

DOI : 10.15740/HAS/AJSS/12.2/275-282

# Effect of graded levels of zinc and boron on nutrient content and uptake by grain and straw of paddy

■ M.B. MAHENDRA KUMAR, C. T. SUBBARAYAPPA AND V. RAMAMURTHY

Received : 22.09.2017; Revised : 08.11.2017; Accepted : 18.11.2017

MEMBERS OF RESEARCH FORUM:

**Corresponding author :**

**M.B. MAHENDRA KUMAR,**  
Department of Soil Science and  
Agricultural Chemistry, University  
of Agricultural Sciences, GKVK,  
BENGALURU (KARNATAKA) INDIA

**Co-authors :**

**C. T. SUBBARAYAPPA,**  
Department of Soil Science and  
Agricultural Chemistry, University  
of Agricultural Sciences, GKVK,  
BENGALURU (KARNATAKA) INDIA

**V. RAMAMURTHY,** ICAR-National  
Bureau of Soil Survey and Land Use  
Planning, Hebbal Regional Centre,  
BENGALURU (KARNATAKA) INDIA

## Summary

A field experiment was taken during summer at Naganahalli village, Mysore district, Karnataka to study the graded levels of zinc and boron on nutrient content and uptake by grain and straw of paddy. Among the treatments, T<sub>12</sub> treatment (RDF + ZnSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> + borax @ 4 kg ha<sup>-1</sup>) recorded significantly higher nutrients (N, P, Ca, Mg, Zn, Cu and B) content and uptake by grain and straw of paddy compared to all other treatments. The potassium and sulphur content and uptake were significantly high in T<sub>16</sub> treatment (RDF + ZnSO<sub>4</sub> @ 30 kg ha<sup>-1</sup> + borax @ 6 kg ha<sup>-1</sup>) but, the potassium uptake was significantly high in T<sub>13</sub> treatment (RDF + ZnSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> + borax @ 6 kg ha<sup>-1</sup>). The RDF+FYM (T<sub>1</sub>) treatment showed significantly higher Fe and Mn content but their uptake was significantly high in T<sub>12</sub> (RDF + ZnSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> + borax @ 4 kg ha<sup>-1</sup>) and T<sub>3</sub> (RDF + ZnSO<sub>4</sub> @ 20 kg ha<sup>-1</sup>) treatment by grain and straw of paddy.

**Key words :** Content, Uptake, Grain, Straw, Treatment, Significantly

**How to cite this article :** Kumar, M.B. Mahendra, Subbarayappa, C.T. and Ramamurthy, V. (2017). Effect of graded levels of zinc and boron on nutrient content and uptake by grain and straw of paddy. *Asian J. Soil Sci.*, 12 (2) : 275-282 : DOI : 10.15740/HAS/AJSS/12.2/275-282.