

Research Article

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# Effect of lime, zinc and boron on yield and uptake of micronutrients by soybean

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## Summary

In order to study the effect of lime zinc and boron on soybean yield and uptake of micronutrients, a field experiment was conducted at Botany Farm, College of Agriculture, Dapoli, dist. Ratnagiri, in Konkan region of Maharashtra. The experiment was laidout in Randomized Block Design with three replications and the treatments included two levels of liming *i.e.* ½ L.R. and 1 L.R in combination with soil and foliar application of Zn and B in combinations. The results of the experiment showed that the grain (25.52 q ha<sup>-1</sup>) and straw (37.29 q ha<sup>-1</sup>) yield of soybean was significantly increased due to application of 1 LR + Zn + B through soil and foliar spray along with RDF. The application of RDF + 1 LR + Zn and B through soil and foliar spray showed maximum uptake of zinc (260.10 g ha<sup>-1</sup>) by grain and (375.65 g ha<sup>-1</sup>) by straw. While the uptake of boron was significantly higher (75.51 and 105.31 g ha<sup>-1</sup>) in grain and straw, respectively due to application of RDF + ½ LR + B through soil and foliar spray. The uptake of Cu, Fe and Mn was significantly higher in treatment consisting RDF + ½ LR + B through soil and foliar spray (T<sub>7</sub>). At the same time, there was decrease in the uptake values of Cu, Fe and Mn when lime dose was increased from ½ LR to 1 LR The uptake of micronutrients by soybean was favourably improved by application of boron + ½ LR along with RDF.

**Key words :** Lime, Zinc, Boron, Soybean, Yield, Micronutrient uptake

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