

# **Performance of Maize and Soybean Intercropping Systems in Relation to Zinc Application Under Rainfed Condition**

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## **ABSTRACT**

A field experiment was carried out during the rainy (*kharif*) season of 2009-10 at Rajendranagar, Hyderabad, to find out effect of row ratio (1:1 and 1:2) and zinc levels on growth, yield, productivity, economics of maize + soybean intercropping systems under rainfed condition. The result revealed that growth and yield components of maize and soybean were less in intercropping systems compared to sole cropping. Intercropping of 1:1 and 1:2 ratio declined the seed yield by 14.75 and 11 per cent in maize and 52.19 per cent and 38.34 per cent in soybean as compared to sole crop. However, the total productivity of systems in terms of maize grain equivalent and LER (6182 kg ha<sup>-1</sup> and 1.47) was found to be higher with maize + soybean 1:2 ratio. Irrespective of the cropping system, application of 50 kg ZnSO<sub>4</sub> ha<sup>-1</sup> recorded significantly higher grain yield of maize and soybean (5301 and 936 kg ha<sup>-1</sup>), maize-equivalent yield (6850 kg ha<sup>-1</sup>) and LER. Highest net return (Rs. 43594) and B:C ratio (2.26) were found in maize + soybean 1:2 ratio with 50 kg ZnSO<sub>4</sub> ha<sup>-1</sup> application.

**Key words :** Economics, Intercropping, Maize, Soybean, Yield.