

EFFECT OF FOLIAR APPLICATION OF ZINC AND FERROUS ON GROWTH AND YIELD OF MUNGBEAN

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Mungbean is one of the important grain legumes, which can be successfully grown in dry and intermediate zones with low moisture condition. Several studies revealed that low availability of micronutrients in the soil affect adversely on growth and yield of mungbean. This study evaluated effects of foliar application of Zinc (Zn) and Ferrous (Fe) on growth and yield of mungbean (variety MI 6) during the *Maha* 2015/ 2016 at Field Crops Research and Development Institute, Mahailuppallama. There were nine treatments including Department of Agriculture (DOA) fertilizer recommendation for mungbean (control) and different combinations of Zn and Fe with DOA fertilizer recommendation. Experiment was laid out in a Randomized Complete Block Design with four replicates and results were analyzed using Analysis of Variance. There was no significant difference ($p > 0.05$) in growth parameters (plant height and canopy width) at 50% flowering stage and first harvest stage among tested treatments. However DOA fertilizer recommendation + Zn (1kg /ha) and DOA fertilizer recommendation + Zn (1kg/ha) + Fe (2kg/ha) recorded significantly higher ($p < 0.05$) yields compared to the control. The percentage of yield increment of these two treatments compared to the control were 30% and 40% respectively. Plant analysis for Zn and Fe revealed that only Zn absorption was significantly different ($p < 0.05$) and above two treatments showed greater uptake. Hence it can be concluded that only Zn absorption has positive effect on yield improvement of mungbean. However further investigations are needed to confirm findings.

Keywords: Ferrous, Foliar application, Mungbean, Zinc