RESEARCH ARTICLE

EFFECT OF MICRONUTRIENT APPLICATION ON GROWTH, YIELD ATTRIBUTES, GRAIN AND BIOLOGICAL YIELD OF URDBEAN (*VIGNA MUNGO* L.)

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Received-02.01.2021, Revised-15.01.2021, Accepted-27.01-2021

Abstract: A field experiment was conducted during the summer 2019 at Crop Research Centre of S.V.P. University of Agriculture and Technology, Meerut (U.P.) to study the effect of micronutrient application on growth, yield attributes, grain and biological yield of Urdbean (*Vigna mungo* L.). The soil of the experimental field was well drained, sandy loam in texture, low in organic carbon and available nitrogen, medium in available phosphorus, potassium, sulphur and slightly alkaline in reaction. The nine treatments of nutrient management *viz*., Control**,**foliar spray of water at 20 & 40 DAS, foliar spray of zinc sulphate (0.5%) at 20 & 40 DAS, foliar spray of ferrous sulphate (0.5%) at 20 & 40 DAS, foliar spray of copper sulphate (0.1%) at 20 & 40 DAS, foliar spray of zinc sulphate (0.5%)+ ferrous sulphate (0.5%) at 20 & 40 DAS, foliar spray of zinc sulphate (0.5%)+ copper sulphate (0.1%) at 20 & 40DAS, foliar application of ferrous sulphate (0.5%) + copper sulphate (0.1%) at 20 & 40 DAS and foliar application of zinc sulphate (0.5%) + ferrous sulphate (0.5%) + copper sulphate (0.1%) at 20 & 40 DAS were laid out in RBD with three replications. Urd variety PU-31 was sown on March 18 and harvested on June 16, 2019. Results revealed that growth parameters *viz*. plant height, number of branches/plant, number of trifoliate leaves/plant, dry matter accumulation/plant, and leaf area index were significantly higher under foliar application of zinc sulphate (0.5%) + ferrous sulphate (0.5%) + copper sulphate (0.1%) at 20 & 40 DASwhich was significantly superior over rest of the treatment at all the stages of crop growth. Similarly, yield components *viz*, pod length (cm), number of pod/plant, number of grains/pod, and 1000 grain weight was found significantly higher with foliar application of zinc sulphate (0.5%) + ferrous sulphate (0.5%) + copper sulphate (0.1%) at 20 & 40 DAS which was significantly superior over rest of the treatment. The study also revealed that grain, straw and biological yield were recorded significantly higher in the treatment with foliar application of zinc sulphate (0.5%) + ferrous sulphate (0.5%) + copper sulphate (0.1%) at 20 & 40 DAS which was significantly higher than rest of the treatments.

Keywords: Biological yield, Growth, Micronutrient, Urdbean

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