EFFECT OF FOLIAR AND SOIL APPLICATIONS OF UREA AS TOP DRESSING ON CULTIVATION OF RADISH (*Raphanus sativus* L.) IN SANDY REGOSOL

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ABSTRACT

An attempt was done to evaluate the effect of foliar and soil applications of urea as top dressing on cultivation of radish in sandy regosol. Japan ball variety of radish was used in this study.

Five treatments were randomly arranged within four blocks as replicates. T_1: Recommended soil application of urea fertilizer as top dressing (a control); T_2: recommended soil application with the additional foliar application of 0.1% urea as a foliar spray; the recommendation reduced to 3/4, 1/2 and 1/4 with the foliar application of 0.1% urea as a foliar spray in the treatments T_3, T_4 and T_5 respectively. The parameters which determine the yield were measured at harvest. The leaf area and number of leaves were recorded at two week intervals and also the relevant Leaf Area Index (LAI) was calculated.

The results showed that there were no significant differences in leaf parameters (leaf area index, number of leaves and leaf length) and also in the tuber parameters (total root length, tuber length and tuber diameter) among the tested treatments. Significant differences ($P<0.05$) observed in leaf width between the treatments of 3/4 and 1/4 recommended rates of soil application with foliar spray. When the fresh weight of leaves is concerned, significant ($P<0.05$) difference observed between the control (T_1) and 3/4 recommendation with foliar applied (T_3). There was remarkable difference in tuber weight between the control and 1/4 recommendation with foliar applied treatment. In the present study, the 1/2 recommended rate of urea applied to soil in combination with 0.1% foliar urea spray was more suitable practice of urea application as top dressing compared to other treatments. It is economical and also saves the fertilizer as compared to control.

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