

EFFECTS OF PGPR (PLANT GROWTH PROMOTING RHIZOBACTERIA), SULPHUR AND MICRONUTRIENT ON MORPHOLOGICAL CHARACTERS OF LENTIL (*LENS CULINARIS*).

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Abstract : A field trial was conducted during the rabi season of 2009 at the research farm of J.V. College, Baraut, to study the role of PGPR with sulphur and micronutrients viz. Zn, Mo and Mn on the cultivar L-4076 and PL-406 of lentil (*Lens culinaris*). Application of PGPR along with S @ 60 kg/ha, Zn @ 4 kg/ha, Mn @0.5 kg/ha and Mo @ 0.1 kg/ha showed significant result in comparison of any other treatment including control in respect of Plant height, number of Branches/Plant in both variety increases with the inoculation of PGPR + S with all the micronutrients were highly significant over any other treatments. PGPR in combination with Sulphur and micronutrients attained maximum number of leaf in comparison to PGPR + S, PGPR with all the micronutrients PGPR alone and uninoculated control. Number of Pod per plant is more in both variety L-4076 and PL-406 inoculated with PGPR, S and micronutrients as compared to control. The combined application of PGPR, S and all micronutrients attained significantly higher nodules weight than any other treatments. It is concluded that use of PGPR, S and micronutrients would be an effective approach for better morphological character of lentil under natural conditions.

Keywords: PGPR, Sulphur, Zn, Mo, Mn, *Lens culinaris*, L-4076 and PL-406

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