

**ISOLATION AND CHARACTERIZATION OF PHOSPHOROUS SOLUBILIZING  
BACTERIA FROM MANGANESE MINING AREA OF BALGHAT AND  
CHHINDWARA**

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## ABSTRACT

Plants require optimum amount of available phosphorous to support growth and development of plants. Phosphorous is known to have significant role in root subdivision, vitality and disease resistance of the plants. Different type of bacteria involved in phosphorous solubilization can be used as bio fertilizer in reclamation of mining area. Present study deals with isolation and identification phosphorous solubilizing bacteria from manganese mining area of Balaghat and Chhindwara districts of Madhya Pradesh, India. 16s rDNA based molecular identification were performed assisted by MEGA phylogenetic analysis. *Pseudomonas putida*, *Bacillus licheniformis*, *Pseudomonas taiwanensis* and *Pseudomonas aeruginosa* were explored as potential phosphorous solubilizers from the selected sites.

**Keywords:** Phosphorous solubilizing bacteria (PSB), Mining area, 16s rDNA.