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ISOLATION AND CHARACTERIZATION OF ALKALINE PHOSPHATASE PRODUCING BACTERIA FROM MYLAVARAM SOILS, A.P., INDIA

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ABSTRACT

Alkaline phosphatase producing bacteria were isolated and characterised from legume plant root zone from Mylavaram soils. Alkaline phosphatases are crucial in phosphate metabolism. The enzyme with its wide specificity and activity is potential in bioprocessing. Alkaline phosphatase is the most commonly used enzyme in immunoassays. Most of the microbial alkaline phosphatases are of significant application in diagnostic studies is obtained from bacteria. Alkaline phosphatase based biosensors play an essential role in environmental monitoring. Microbial alkaline phosphatases have a major application as biofertilizer. They are also useful for the evaluation of the soil quality and the perturbation occurring in agricultural fields. In this study Bacillus megaterium was isolated from rhizosphere soil sample from agricultural soils and production of alkaline phosphatase was carried out.

Key words: *Alkaline phosphatases, bacteria, Mylavaram, rhizosphere, agriculture etc.*