

# Journal of Chemical, Biological and Physical Sciences



An International Peer Review E-3 Journal of Sciences

Available online at [www.jcbpsc.org](http://www.jcbpsc.org)

Section E: Plant Biotechnology

CODEN (USA): JCBPAT

Research Abstract

## Isolation of Bacteria Associated With the Rhizosphere of Maize Forest Region of Chiapas, Mexico.

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**Abstract:** Plants were collected from two different maize varieties maize forest region of Chiapas, were isolated rhizosphere bacteria. Samples of the rhizosphere of maize were obtained 21 strains that grew in Rojo congo agar plates, IAA biosynthesis with L-tryptophan as precursor occurred in 4 bacterial strains, with IAA production ranging from 33 to 65 µg.ml<sup>-1</sup>. A total of four ARDRA profiles, clearly different were identified from isolates recovered from the and 2.2M2, had a differential effect on the variables Root weight fresh and dry weight and shoot weight fresh and dry compared to the control and the other strains tested. 21 strains were obtained from the rhizosphere of maize which four produce indoles, based on ARDRA profiles were observed that four profiles, which indicates that in the rhizosphere of plants native maize is low diversity of microorganisms, this may be because farmers use, lots of fertilizers and pesticide which affect the microbiota, as well as the characteristics of soil where the root system of plants is small because the soil is depth and many rocks, however in inoculation assays strains of maize plants had an effect on growth, which suggests that these bacteria is adapted to these conditions

**Keywords:** *Indole acetic, Maize, ARDRA, rhizosphere*

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