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ABSTRACTS OF PAPERS

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for the cure of various kinds of diseases in human. The present study reflects the variations of the fungal community among the phylloplane of three different medicinal plants in relation to their leaf exudates. In the present study, isolation of phylloplane mycoflora was done and diversity of phylloplane fungal populations was observed and compared. The characteristic variation observed in fungal population among the phylloplane of three medicinal plants may be due to exudates released by the leaves.

Key words: Phylloplane, *Murraya koenigii* L., *Lawsonia inermis* L., *Azadirachta indica* L., microbial diversity, leaf exudates.

OP-65

Isolation, Characterization and Molecular Diversity of Amylase Producing Bacterial Strains Isolated from the Soil of Southern Corridor of Brahmaputra

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North East India can be divided into three physiographic units. One of this includes the plains of Brahmaputra and Barak basin, Tripura and Manipur. The soil samples were collected from the districts of Dibrugarh and Tinsukia (Southern corridor of Brahmaputra) for isolation of bacterial strains. Nature of the soil of Dibrugarh and Tinsukia are fertile alluvial, inceptisol and alfisol respectively. Because of suitable physiographic condition, this region has rich bacterial diversity. Large numbers of bacterial colonies were isolated from the soil samples and studied the morphological and biochemical characters. Few of the bacterial strains produce alpha amylase which has got useful properties in industry and agriculture. Among these, few alpha amylase producing bacterial strains were identified as *Bacillus* sp. *Bacillus subtilis*, *Bacillus cereus*, *Pseudomonas stutzeri* and *Bacillus thuringiensis*. PCR based molecular characterization of the alpha amylase producing bacterial strains (Twenty strains) was performed using random primers. Further purification of the enzyme; biochemical characterization and molecular diversity of alpha amylase producing bacterial strains will be presented and discussed.

Key words: soil, bacteria, industry, agriculture, PCR.