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,
*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.