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SEASONAL VARIATION IN MICROFLORA OF RUBBER GROWING SOILS OF MEGHALAYA

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A study on the seasonal variation of microflora in five rubber growing soils has been carried out. The population of fungi bacteria and actinomycetes varied greatly in different soil samples. The total population of bacteria and antinomycetes was found to be more than that of fungi. Statistically, a significant positive correlation was found between the number of microorganisms and soil moisture status as well as pH.

Qualitatively, not much variation was observed in the composition of fungal species, and only a few fungi were recorded with a high percentage of relative abundance. Apparently, the different soils and seasons did not seem to exert any influence on the fungal species composition.

Key words : *Hevea brasiliensis*, Seasonal variation, Soil microflora, Non traditional area, India.

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INTRODUCTION

Hevea brasiliensis Muell. Arg., the most important commercial source of natural rubber, is being introduced to the North Eastern region of India, which lies outside the traditional rubber growing belt. Information on the composition of soil microflora is important to trace out their roles in the soil ecosystem. In India, microflora of fifteen rubber growing soils was studied by Joseph *et al.* (1988), with emphasis on the antagonistic activity of the actinomycetes population. Not much information is available on the ecology and distribution of soil microflora with particular reference to rubber growing soils. The present study was undertaken to obtain preliminary information on the characteristics, composition and distribution of microflora of different rubber growing soils of Meghalaya, India.

MATERIALS AND METHODS

The experimental sites were on the Garo Hills (Meghalaya) at an altitude varying from 200 to 1200 m above MSL, latitude 25° - 26°N and longitude 90° - 90°45'E. The climate is subtropical and remains warm and moist during May to September. December and January are usually the coldest months.

Five different rubber plantations were

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