

# Diversity Of Leaf Surface Mycoflora On Mangifera Indica L.

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**Abstract**—The leaf surface is exposed continuously to air, which carries numerous microscopic living and non living objects. Fungal spores are one of them. Fungi are found everywhere such as in air, soil and water. The air borne fungi vary from place to place. Nutritionally fruits are important and grown in diverse conditions. The mango is an evergreen tree. Mango suffers from various diseases at all stages of life. Leaf surface provides a suitable environment for microbial growth. Fungal species isolated from leaf of mango were *Aspergillus*, *Alternaria* and *Fusarium*.

**Keywords**—Phyllosphere, Mangifera, Fungi

**Introduction** : The term phyllosphere was introduced by Last (1955) to denote the leaf surface environment. Leaf surface provides a suitable habitat for the growth, reproduction and multiplication of microorganisms because the surface medium of leaf comprises exudates, chemical compounds resulting from biological activity of various microbes ( Deepika Chauhan et al. 2014). Lot of investigations have been carried out on phylloplane flora of leaf surfaces of plants grown for various purposes. (Abdul Latif Abadi 1999, Bharat Rai et al 1980, Kiss 2003, Steven E. Lindow, 2003, Shikha Thakur, 2017). Many environmental factors affect the growth of fungal population and due to this there is variation in fungal occurrence.

The microbial population of phyllosphere is diverse showing presence of numerous species of fungi, bacteria and other various microorganisms. Many physical, chemical and biological factors are responsible for growth of microorganisms

The mango is delicious fruit, its skin and seeds are used in Ayurvedic medicine. Leaves are used in rituals, to decorate doors and gateways. In dried form used as amchur, used in pickles and various sweets.

## Material and Methods :

**Sample Collection** : The fresh leaves were collected randomly from various localities. The leaf samples were collected in sterilized polythene bags. The collected leaves brought to laboratory.

## Isolation of Phyllosphere Fungi :

Phyllosphere fungi were isolated from leaves of test plant through leaf washing technique (Sandeep Shukla 2016). The collected leaf samples were placed in 250 ml conical flasks containing 100ml

sterilized distilled water. The conical flask was hand shaken for homogenous suspension for about 30 minutes. This suspension was used for further study. One ml suspension was poured into petriplates containing sterilized PDA medium. Incubated for seven days in incubation chamber. After incubation fungi were observed and recorded using standard literature.

## Result and Discussion :

**Table 1. Observation of Fungal species from phyllosphere**

Sr.no	Name of the plant	Name of the Fungi	Season		
			Rainy	Winter	Summer
1	<i>Mangifera indica</i> L	<i>Aspergillus species</i>	++++	+++	+
		<i>Alternaria species</i>	++	++	+
		<i>Fusarium species</i>	++	+++	+

Presence of fungus = +

During present investigation, it was reported that the species of *Aspergillus*, *Alternaria* and *Fusarium* were frequently seen. Although there may be presence of

another fungi but present study deals with prevalent fungi present and there were selected for further study.

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