



## Endophytic Fungal Communities from Medicinal Plants *Moringa oleifera* and *Murraya koenigii*

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**Abstract :** *Moringa oleifera* (Lam) and *Murraya koenigii* (Linn) Spreng, widely used medicinal plants in the Indian sub-continent, were investigated to analyze the assemblage of fungal endophytic communities in their tissues. Altogether 360 segments of which 180 segments each from leaf and stem tissues of respective plants, were screened using surface sterilization technique. A total of nine species of endophytic fungi were recorded, among them seven belong to the Deuteromycota, and two belong to the Zygomycota, respectively. One species produced sterile mycelia. Based on the morphology of the fungal culture and microscopic characterization, these were classified as *Aspergillus niger*, *Aspergillus flavus*, *Aspergillus fumigatus*, *Aspergillus terreus*, *Aspergillus* species, *Syncephalastrum racemosum*,

*Mucor* species, *Bipolaris* and *Drechslera*. The percentage colonization frequency of *Aspergillus niger* was highest in *Murraya koenigii* (66.1%) and in *Moringa oleifera*, *Syncephalastrum racemosum* (43.3%) showed the highest frequency. The percentage endophytic infection rate was higher in *Murraya koenigii* as compared to *Moringa oleifera*.

**Key words:** Endophytic fungi, medicinal plants, colonization frequency, endophytic infection rate.

### Introduction :

Endophytes are the plant-associated microorganisms that live within the living tissues of their host plants without causing any harm to them. Almost all groups of microorganisms – fungi, bacteria or actinomycetes have been found in endophytic association with plants. They stimulate the production of secondary metabolites some of which have profound biological activities that can be exploited for human health and welfare. Some endophytes can produce the same secondary metabolites as that of the plant thus making them a promising source of novel compounds.

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