

International Conference on

# Mycology and Fungal Infections

December 12-13, 2023 | Paris, France

Volume: 15

## Biological Control Potential of Endophytic Fungi with Amelioration of Systemic Resistance in Sunflower

**Hafiza Farhat**

Gomal University, D.I Khan, KpK, Pakistan

Endophytic fungi live inside plant tissues but do not cause any disease. Several reports have now revealed that they have great influence on host. In this study, the beneficial role of endophytic fungi is highlighted and explored. Endophytic fungi isolated from healthy plants were identified as *Aspergillus terreus*, *Curvularia lunata*, *C. hawaiiensis*, *Macrophomina phaseolina*, *Fusarium solani*, *Talaromyces assiutensis*, and *T. trachyspermus* using 18S rRNA gene sequencing. In vitro, fungi evaluated for antimicrobial activity, showed significant activity. These fungi were tested in field application by exploring their broad spectrum. *Talaromyces assiutensis* and *T. trachyspermus* were applied in pots and field plot experiments using sunflower as test plants, along with endophytic *Cephalosporium* sp., and *Chaetomium* sp. Endophytic fungi showed significant activity against root rot pathogens affecting sunflower and improved plant biomass. They also improved production of plant defense biochemical markers (polyphenolic content and salicylic acid) with improvement in antioxidant potential.

### Biography

I Dr Hafiza Farhat did Ph.D on Antibiotic producing endophytic fungi associated with healthy plants and received Ph.D degree from university of Karachi. Now I am serving in well renowned and Public Sector University (Gomal University D.I Khan) of Pakistan as an Assistant Professor. I have research articles in high impact factor journal in national and international journals. I attended so many conference and workshop as a speaker. I am also gold medalist as I achieved two gold medals in University level by getting first position in M.Sc.