

## **MYCORRHIZAL SYSTEMS FOR SUSTAINABLE AGRICULTURE, HORTICULTURE AND FORESTRY**

Mycorrhizas are the chief organs involved in nutrient uptake of most land plants. They are the mutualistic symbionts living in associations with the roots of the majority of the land plants, influencing the soil fertility and plant nutrition. The presence of the fungal associate of mycorrhizal systems in the root region or in the root tissues and surrounding soil inevitably ensures that it influences the absorption of soil derived substances by the host and improves the soil structure by influencing the physico chemical characteristics. Among the fungal components glomalin, an insoluble proteinaceous substance of AM fungi has been proposed to improve the stability of the soil by avoiding the disaggregation by water. Different types of Mycorrhizas are distinguished depending on the plants and the fungi involved. Ecto, endo, ericoid and Arbutoid are the different associations of mycorrhizas.

Though studies are there for the past several decades, exploitation of these associates to the fullest potential is not achieved so far. Exploitation needs the proper understanding of these interactions and also the foremost thing is to practice the tools and techniques involved in the application of mycorrhizal systems.

This department has been awarded with **Centre for Advanced Faculty Training by ICAR**, New Delhi. Keeping in view of the recent developments in the field of mycorrhizal research, this training programme is being organized to provide an opportunity to impart knowledge and skill in studying various Mycorrhizal associations and applications in the field of agriculture to the young scientists and researchers of SAUs, ICAR and other institutes.

The training aims to impart knowledge on basic and applied aspects of mycorrhizal systems.

## **TRAINEES**

Teachers and researchers working in this area in SAUs, ICAR and other institutes are eligible. The number of participants will be limited to twenty.

## **THE COURSE**

The training is designed to provide both theoretical knowledge and practical skill.

## **COURSE OUTLINE**

**Ectomycorrhizas** – Isolation, identification, characterization, screening and mass multiplication

**AM fungi** - Isolation, identification, characterization, screening techniques- Morphotyping of AM spores-Molecular methods in identification of AM fungi – Diversity assessment

**Ericoid and orchid Mycorrhiza** – Isolation, Culturing and multiplication.

**Methods of Mass production and application** to various crops

**Mycorrhizal interactions** with other rhizosphere microorganisms – Nutrient mobilization and role in carbon sequestration- role in diseases and nematodes control- Reclamation of heavy metal pollutants.

Training on

## **Mycorrhizal systems for sustainable agriculture, horticulture and forestry**

(11.03.2010 to 31.03.2010)

## **APPLICATION FORMAT**

1. Name
2. Designation
3. Age & Sex
4. Total service
5. Experience
  - a) Teaching
    - i. U. G
    - ii. P.G
  - b) Research
6. Field of specialization
7. Address for communication
8. Accommodation: Required / Not required
9. Academic record
10. Address of the sponsoring institute
11. Phone / Fax No
12. Signature of the candidate
13. Recommendation of the sponsoring authority
14. Signature and designation of the sponsoring authority

## COURSE DIRECTORS

### **Dr. K.Kumutha**

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## DURATION

Twenty one days  
From 11.03.2010 to 31.03.2010

## VENUE

Department of Agrl. Microbiology  
Tamil Nadu Agricultural University  
Coimbatore – 641 003  
Tamil Nadu

## TRAVEL

Traveling allowance will be met by the organizers. Depending on the availability of funds, reimbursement will be restricted to III tier AC / Sleeper class fares. No DA will be provided.

## ACCOMMODATION

Food and accommodation will be arranged at the University campus only for the participants.

## LAST DATE

Completed application form in the prescribed format through proper channel should reach the following address on or before **01.03.2010**.

## CONTACT PERSON FOR THE COURSE

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**Sponsored by ICAR, New Delhi.**



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