



CENTRE FOR e-LEARNING

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in collaboration with

Department of Agricultural Microbiology
College of Agriculture, Vellanikkara
KERALA AGRICULTURAL UNIVERSITY



TRAINING ON "MASS PRODUCTION OF CARRIER- BASED BIOFERTILIZER INOCULANTS"

Register now :

<https://forms.gle/L7Q1k2srRHRnouw96>



12-16 December 2022



Google Meet



Fee : RS . 1000/-

Account No: 67368597330

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Bank Name: State Bank Of India

Branch: KAU Branch ,

Vellanikkara Thrissur



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**LAST DATE OF
REGISTRATION
07-12-2022**

Lecture Schedule for an ONLINE training programme on "MASS PRODUCTION OF CARRIER-BASED BIOFERTILIZER INOCULANTS"

DAY 1

- 10.00 – 11.30 AM : Introduction to biofertilizer and its importance in sustainable agriculture
 - 11.30 – 01.00 PM : Isolation and preparation of culture media for *Rhizobium* and mother inoculum preparation
 - 02.30 – 04.30 PM : Mass production of *Rhizobium* inoculant and quality standards
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DAY 2

- 10.00 – 11.30 AM : Isolation and purification of *Azospirillum* from roots
 - 11.30 – 01.00 PM : Mass production of *Azospirillum* and quality standards
 - 02.30 – 04.30 PM : Preparation of culture media for *Azospirillum* and mother inoculum preparation
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DAY 3

- 10.00 – 11.30 AM : Isolation and purification of *Azotobacter* from soil
 - 11.30 – 01.00 PM : Preparation of culture media for *Azotobacter* and mother inoculum preparation
 - 02.30 – 04.30 PM : Mass Production of *Azotobacter* inoculant and quality standards
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DAY 4

- 10.00 – 11.30 AM : Isolation and purification of phosphate solubilizing microorganisms from soil
 - 11.30 – 01.00 PM : Preparation of culture media for phosphate solubilizing microorganisms and mother inoculum preparation
 - 02.30 – 04.30 PM : Preparation of culture media for phosphate solubilizing microorganisms and mother inoculum preparation
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DAY 5

- 10.00 - 11.30 AM : Types of mycorrhiza and its importance in agriculture
- 11.30 - 01.00 PM: Enumeration of AMF spores from soil and determination of percent root colonization
- 02.30 - 04.30 PM : Mass production of AMF inoculant using pot culture

ABOUT THE ORGANISING TEAM

CENTRE FOR e-LEARNING (CeL)

The Centre for e-Learning (CeL) under Kerala Agricultural University was established to provide a learning avenue for rural youth and working professionals by way of online courses viz., online certificate courses, Massive Open Online Courses(MOOCs) pertaining to agricultural technology and continuous learning by utilizing the potential and prospects of Information and Communication Technology. The CeL of KAU is hosting an agricultural information technology portal (<http://celkau.in/>) which is useful for farmers, extension workers, students and all stakeholders on agriculture and has an average hit of around 6 lakhs per annum. Apart of these activities, the Centre for e-Learning is organizing both paid and free online/offline trainings to scientific and technical professionals within and outside the country.

DEPT. OF AGRICULTURAL MICROBIOLOGY

A statutory Agricultural Microbiology department was established in the College of Horticulture during May, 2010. A separate building for the department was constructed under ICAR 100 crores under special one-time grant in 2014. Currently, the department is well-equipped with laboratories and PG class room. The main objective of the department is to impart and maintain quality in education, research and extension activities in the field of Agricultural Microbiology.

ABOUT THE TRAINING

Concerns about the adverse effect of chemical fertilizers has prompted for a non toxic eco-friendly alternative for crop production and protection. In recent years, inorganic fertilizers are being supplemented with eco-friendly inputs such as bio-fertilizers to ensure sustainable productivity. Bio-fertilizers contains ready-to-use carrier based formulations of live beneficial microorganisms that colonizes the rhizosphere or plant, when applied to seed, root or soil . They increase the supply or availability of essential nutrients by their biological activity and help to build up the micro-flora which in turn improves the soil health.

The Department of Agricultural Microbiology, KAU, Vellanikkara has been working on various biofertilizers since last twelve years and developed different products like *Rhizobium*, *Azospirillum*, *Azotobacter*, Phosphate solubilizers, Mycorrhizal fungi suitable for different climatic conditions of Kerala. The effective use of these bio-fertilizers not only improves crop production and productivity but also provides an alternative to expensive chemical fertilizers. The objective of the present training is to create awareness among the students, researchers and faculty from non-agricultural disciplines on the use of various bio-fertilizers and mass production of so as to attain sustainability in agricultural production. The training is scheduled for 5 days to provide information on the importance of different kinds of bio-fertilizers and its mass multiplication through online platform.

ORGANIZERS

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