



Advanced Entrepreneurship and Skill Development Program (A-ESDP)



Sugarcane Propagation through Tissue Culture Techniques

March 12-18, 2024



Nodal Officer : Dr. Sanjeev Kumar
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Sponsored by:

**Ministry of Micro, small and Medium Enterprise (MSME),
Govt. of India, New Delhi**



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Background

Plant tissue culture is a process by which plant parts or even single cells can be grown *in vitro* under aseptic conditions in a medium containing a carbon source, minerals, and plant growth hormones. Tissue culture is of great value, particularly in speeding up conventional breeding and propagation procedures. Tissue culture systems allow propagating plant material with high multiplication rates in an aseptic environment. Virus-free plant can be obtained through meristem culture thus ensuring the production of viral disease-free stocks and simplifying quarantine procedures for the international exchange of germplasm. The miniaturization of explants allows reducing space requirements and consequently labor cost for the maintenance of elite genotypes.

Despite the precaution during culture/sub-culture there are always chances of microbial contamination resulting in loss of partial or whole culture. In addition, there are chances of somaclonal variations if the cultures are repeatedly multiplied beyond 6th cycle. Such challenges can be tackled only by skillful hands and taking utmost precautions during the culture.

Entrepreneurship development is the process of improving the skills and knowledge of entrepreneurs, enhancing the capacity to develop, manage and organize a business venture while keeping in mind the risks associated with it. The focus of entrepreneurship development is to increase the number of entrepreneurs. The proposed A-ESDP program is aimed to enhance the skill of those graduates and youth who are working with plant tissue culture production units. In addition, unemployed graduates in agriculture and allied fields who wish to develop tissue culture skill and entrepreneurship in the field of plant tissue culture will be benefitted from this Advanced Entrepreneur and Skill Development Program (A-ESDP).

About the ESDP

The DC-MSME under "Development of MSMEs" vertical has launched the "Entrepreneurship and Skill Development Programme (ESDP)". The objective of the programme is to motivate young persons (Men and Women) representing different sections of the society including SC/ST women, physically handicapped, Ex- servicemen, and BPL persons to consider self-employment or entrepreneurship as one of the career options. The ultimate objective is to promote new enterprises, build capacity of existing MSMEs and inculcate entrepreneurial culture in the country.

The program

There will be a series of lectures and hands-on training sessions on various aspects of sugarcane tissue culture. The well-equipped Plant Tissue Culture laboratory and fields in the Institute will serve as the venue for this 10-days journey in to the world of sugar tissue culture. Visits to the near-by Plant Tissue Culture Production Facilities will help the participants gain some insight in to the commercial aspects of sugarcane tissue culture.

How to apply The interested candidates are requested to apply online through Google Form developed for this purpose on or before 07/03/2024. Selected participants will be intimated through e-mail/telephone. Link for google form to be filled by the applicant https://docs.google.com/forms/d/e/1FAIpQLScwkeVVpWHvEpmqhCwpyuB404NV-KzAXQtHcII--w-IYz7hpA/viewform?usp=sf_link	Faculty The highly experienced scientists and technical staff at IISR will form the major part of the faculty for this ESDP. Guest speakers from Industry and Academia who are expert in the area of plant tissue culture will also be invited to deliberate on various aspects of sugarcane commercial tissue culture.	
Eligibility Applicants should have a Graduate Degree in Agriculture and allied disciplines with working knowledge in computers. Travelling Allowance, Boarding and Lodging The program is sponsored by Ministry of Micro, Small and Medium Enterprise (MSME), Govt. of India, New Delhi. All the cost of Travel (limited to AC II/Govt. Bus), Boarding and Accommodation will be provided by the Ministry of Micro, small and Medium Enterprise (MSME), Govt. of India, New Delhi. Important dates : Last date for receiving application : 07/03/2024 Intimation of selection : 08/03/2024 Commencement of the program : 12/03/2024	How to reach The institute is located near the Base Hospital, Lucknow, Cantonment about 6 km from Lucknow railway station on Raibareli Road, on way to Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI). Pre-paid three-wheeler autos/taxis can be availed to reach the Guest House. Clarification may be sought from Dr. R. Viswanathan Director ICAR-Indian Institute of Sugarcane Research, Raebareli Road, P.O. Dilkusha, Lucknow 226 002 U.P. Email: Director.Sugarcane@icar.gov.in	
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