



## Green Skill Development Programme (GSDP) Plant Tissue Culture Techniques and its Applications

Organized by

**ENVIS Resource Partner on Forest Genetic Resources and Tree Improvement**

**Institute of Forest Genetics and Tree Breeding**

**(Indian Council of Forestry Research and Education)**

**Coimbatore**

### **Day 3 (24.02.2021): - Introduction to Aseptic Techniques**

A lecture on “Introduction to Aseptic Techniques” was delivered by Ms A. Sathiya, Field Assistant. She explained how aseptic technique helps to prevent the spread of pathogens that cause infections. Various aseptic techniques for tissue culture experimentation along with the pros and cons were explained to the trainees.



## Laboratory Session

The trainees were taken to tissue culture lab for providing practical training. Ms Chitra, Technician, Plant Biotechnology and Cytogenetics Division and her team taught the following:

- Categories of glassware
- Basic steps in cleaning equipment
- General Methods of cleaning glassware
- Common Lab Chemicals used for cleaning Glassware
- Process of decontaminating glassware

They also gave an overall idea about the procedures and special precautions to be followed for handling the glassware in the laboratory.



Hands on training was given to the trainees and they were taught how to properly clean various glassware in the laboratory. Trainees were given guidance and support throughout their practical session.



Ms.Kalaiselvi, JPF and Ms.Arathi, JPF Plant Biotechnology and Cytogenetics Division taught about the following:

- Basics of contamination
- Categories of cell culture Contaminants
- Types of bacterial and fungal contamination in cultures
- Major contaminating agents
- Procedure for Identifying Cell Culture Contaminations
- Procedures to reduce contaminations
- General idea about Laminar air flow
- Horizontal and vertical Laminar flow
- Various sterilization procedures

They practically briefed how cultures can become contaminated and explained procedures to detect it.





The importance of the use of Cotton plugs in lab was explained to the trainees. How cotton plugs acts as best filters of microbes was also explained. The procedure for preparing cotton plugs were taught to trainees and they also trained to prepare cotton plugs.