

वन आनुवंशिकी एवं वृक्ष प्रजनन संस्थान  
**ICFRE - Institute of Forest Genetics & Tree Breeding**  
कोयंबटूर/Coimbatore

महाराष्ट्र के सामाजिक वानिकी कार्मिकों के लिए वन वृक्ष प्रजातियों के कायिक प्रवर्धन तकनीक पर  
प्रशिक्षण

**Training Report on**  
**Integrated Nursery Development through Vegetative Propagation Techniques**  
**For Officials of Maharashtra Forest Department**

**27-31 January 2025**

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Propagation of forest trees through vegetative means holds promise for efficiently multiplying identified tree genetic resources. This technique preserves the genetic characteristics of the parent tree and plays a crucial role in production forestry. The success of increasing tree and forest coverage over the coming decades hinges on the effective multiplication and distribution of high-quality planting stock. In this background, the ICFRE - Institute of Forest Genetics and Tree Breeding, Coimbatore, conducted a five-day training on “Integrated Nursery Development through Vegetative Propagation Techniques Vegetative Propagation Techniques” from 27-31 January 2025 for officials of Maharashtra Forest Department. Nineteen participants, including three Divisional forest officers, seven Assistant Conservator of Forests, eight Range Forest officers and one Forester, attended the training from Maharashtra. The training was conducted at the ICFRE-IFGTB Campus at the request of the Maharashtra Forest Department.

In the inaugural session, Dr. N.V. Mathish, Scientist G & Head, Division of Plant Biotechnology & Cytogenetics, ICFRE-IFGTB welcomed the participants. Dr. R. Yasodha, Scientist G, Division of Plant Biotechnology & Cytogenetics, gave an overview of the training program. Dr. B. Nagarajan, Scientist G, Group Coordinator Research, delivered the special address.

In his presidential address, Dr. C. Kunhikannan, Director, ICFRE - IFGTB, highlighted the relevance of the present training and urged the participants to utilize the opportunity to fine-tune the existing methods of vegetative multiplication for successful propagation. The session ended with a vote of thanks by the Training Coordinator, Dr Rekha R.Warrier, Scientist G & Head, Division of Chemistry and Bioprospecting ICFRE-IFGTB.

The training session began with lecture on the Vegetative propagation for quality planting stock production with a focus on Short rotation teak by Dr. R. Yasodha, Scientist G, and Mrs. K. Shanthi, Chief Technical Officer delivered a lecture on Establishment of Vegetative propagation

facility. Hands-on training was imparted in the vegetative propagation complex of IFGTB, wherein the participants were exposed to different facilities such as the motherbed chamber and shade house, as well as the essential requirements for mass multiplication of tree species. The participants were appraised on the concepts of selecting trees and data collection on tree characters. The participants were given hands-on experience in collecting cuttings from vegetative multiplication garden and coppice shoots. Practical sessions in the preparation of rooting media, rooting hormone preparation and application in different concentrations and fungicide applications were conducted to enable the participants to acquire knowledge on standardizing optimal rooting hormone concentration. The role of cost-effective mistless chambers and the requirements for successful rooting of different tree species were also enumerated. The trainees were trained in the selection of cuttings on the basis of maturity index to obtain maximum rooting during propagation in different species like teak, *Melia dubia*, Cadamba, Eucalyptus and Casuarina hybrids. Further, the process of composting of coir pith and formation of standard beds were also explained. Different types of grafting and air layering were also demonstrated. Dr. K.N. Ashrith, Scientist C, Forest Protection Division, delivered a lecture on pest and disease management in forest tree species. The participants interacted with resource persons throughout the training programme. They also visited Bambusetum.

As a part of the training program, the participants visited TNPL, Karur, to acquire knowledge on commercial mass multiplication of forest tree species. The participants shared their views with Plantation Manager Dr. Chezhiyan and Smt. Leela Rosi, Officer Plantation. In the valedictory session, Dr. N.V. Mathish, Head, PBT&C welcomed the participants and sought their feedback on the training program. Overall, they expressed their satisfaction with the contents of the training program. Smt. K. Shanthi, CTO, Training in charge, presented the training programme report. Dr. B. Nagarajan Scientist G, and Group Coordinator Research gave his remarks on the training. In the valedictory address, the Director, Dr. C. Kunhikannan, assured the participants that the Institute would support the Maharashtra Forest Department in research activities. The training ended with vote of thanks by Dr. Rekha R. Warriar, Scientist G and Head, Division of Chemistry and Bioprospecting.

## Inauguration



## Lecture by Dr. R. Yasodha, Scientist G



**Pest & Disease management by Dr. K. N. Ashrith, Scientist C**



**Lecture by Smt. K. Shanthi, Chief Technical Officer**



## Hands on training

### Preparation of Rooting media



### Collection of cuttings



## Processing of Cuttings



## Cuttings for rooting in Mistless chamber



## Composting of coir



## Rooting hormone preparation



### Grafting for special purpose



### TNPL commercial production of Quality planting material





## Field visit TNPL



## Establishment of VMG for quality planting stock production



## Valedictory



