#### वन आनुवंशिकी एवं वृक्ष प्रजनन संस्थान

# Institute of Forest Genetics & Tree Breeding कोयम्बत्त्र/Coimbatore

#### **Training Report on**

## Vegetative Propagation Techniques of Forest Tree Species For Officials of Maharashtra Forest Department

15-19 May 2023 \*\*\*\*\*\*\*

Vegetative propagation of forest trees is a prospective approach for mass multiplication of selected germplasm. It maintains the genetic potential of the mother tree and is an essential part of production forestry. Mass multiplication and deployment of quality planting stock will determine the success of increase in the tree and forest cover for the next ten years. In this background, the Institute of Forest Genetics and Tree Breeding, Coimbatore scheduled Five -days hands-on training on "Vegetative Propagation Techniques of Forest Tree Species" from 15-19 May 2023 for officials of Maharashtra social Forest Department. A total of 18 participants including 10 Forest Range officers and 8 Foresters attended the training from Pune. The training was conducted at ICFRE-IFGTB Campus and funded by Maharashtra Forest Department.

In the inaugural session, Dr. N.V.Mathish, Scientist G & Head, Division of Plant Biotechnology & Cytogenetics, IFGTB welcomed the participants. The overview of the training program was given by Dr. Rekha R.Warrier, Scientist F& Training Co-ordinator. The special address for the event was delivered by Dr. R. Yasodha Group Coordinator Research.

Dr. C. Kunhikannan, Director, IFGTB delivered the inaugural address highlighted the relevance of the present training and urged the participants to utilize the opportunity and fine tune the existing methods of vegetative multiplication for successful propagation. The session ended with vote of thanks by Smt. K. Shanthi, CTO & training in charge IFGTB.

The training session began with a lecture on the fundamentals of Clonal forestry by Dr. R. Yasodha, Scientist G & Group Co-ordinator Research, IFGTB followed by an interactive session on introduction to vegetative propagation techniques by Smt. K. Shanthi.

The hand-on training was imparted in the vegetative propagation complex of IFGTB where in visit was given on the different facilities like Mother bed chamber, shade house and the essential requirements for mass multiplication of trees. The participants were appraised on

the concepts of Selection of trees and data collection on tree characters. The participants were given hands-on experience in collection of cuttings from Mother Bed chambers, vegetative multiplication garden and coppice shoots. Practical session in the preparation of rooting media and rooting hormone preparation in different concentration enabled the participants to acquire knowledge on standardising optimum rooting hormone concentration followed application of rooting hormone and fungicides. 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 different species like teak, *Melia dubia, Gmelina, Cadamba, Bamboo* and Casuarina hybrids. An awareness was provided to select the cuttings on the basis of maturity index to obtain maximum rooting during propagation. Further, the process of composting of coir pith and formation of Standard beds were also demonstrated. The participants were trained in different types of grafting and air layering. The trainees were trained in handling tissue culture teak plants. Dr. J. P. Jacob, Head Forest Protection Division, presented a lecture on Talk on Pest and diseases management in Forest tree species. The participants interacted with resource persons throughout the training programme.

As a part of the training program, the participants visited TNPL, Karur, to acquire awareness on commercial mass multiplication of forest tree species. The participants freely shared their views with the Production manager Dr. P.Chezhian,. The trainees visited Bamboo setum, Forest Genetics Resource nursery, Silviculture and forest management nursery of IFGTB

In the Valedictory session, Dr. N. V. Mathish, Head, PBT&C presented the welcome address. The participants gave their feedback on the training program. Overall, they expressed their satisfaction in the hands-on experience received during the training program. Dr. J. P. Jacob, Head, Forest Protection Division in the valedictory address assured that the Institute would support Maharashtra Forest department in research activities. The training ended with vote of thanks by Smt. K. Shanthi, CTO, Training in charge, IFGTB.

### **Inaugural Session**



**Lecture Session.1** 









Lecture session 2.



Hands on Training













Field Visit TNPL, Karur





Valedictory session

