

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

**Training Report on**  
**Vegetative Propagation Techniques**  
**For Officials of Tamil Nadu Forest Department**

**21-22 December 2022**  
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Vegetative propagation of forest trees is a potential strategy for mass multiplication of selected germplasm. It captures the genetic potential of the mother tree and is an integral part of production forestry. With the implementation of the Green Tamil Nadu Mission which aims to increase the state's tree and forest cover from 23.69% to 33% in the next ten years, mass multiplication and deployment of quality planting stock will determine the success of the mission. In this backdrop, the Institute of Forest Genetics and Tree Breeding, Coimbatore designed a two-day hands-on training on "Vegetative Propagation Techniques" on 21-22 December 2022 for officials of Tamil Nadu Forest Department. A total of 27 participants including 10 Range officers and 17 Foresters attended the training from five districts of Tamil Nadu. The training was conducted in the aegis of Azadi Ka Amrut Mahotsav under Van Vigyan Kendra – IFGTB Campus and funded by CAMPA – Extension program.

In the inaugural session, Dr. S. Saravanan, Scientist F & Head, Extension Division, IFGTB welcomed the guests and the participants. The overview of the training program was given by Dr. Modhumita Dasgupta, Scientist G & Training Co-ordinator. The special address for the event was delivered (online) by Dr. V. Naganathan, IFS, APCCF, (Wildlife), TNFD. He reiterated the importance of using quality planting stocks for planting programs of the State and urged the participants to update their knowledge and skill on vegetative propagation of tree species for effective implementation in the field. He appreciated the efforts taken by the Institute in customizing a hands-on training module for the field staffs of TNFD.

Dr. C. Kunhikannan, Director, IFGTB delivered the presidential address and highlighted the initiatives taken by the Institute to support the research needs of different SFDs. He reiterated that IFGTB would remain committed to the research requirements of TNFD, as it is one of the major stakeholders. Shri. S. Kalanidhi, IFS, DCF, Forest Genetics Division, Coimbatore participated in the inaugural session and thanked the Institute for extending its expertise to the officials of TNFD. He indicated that the TNFD has several germplasm collections and

have concurrently identified superior genotypes in species like teak, *Melia dubia* and *Boswellia serrata* which needs to be mass propagated for deployment in planting programs and supply to farming community. He 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 & Co-Cordinator, IFGTB.

The training session began with two lectures on the importance 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 a conducted tour was given on the different facilities and the essential requirements for mass multiplication of trees. The participants were given hands-on experience in collection of cuttings from Mother Bed chambers, vegetative multiplication garden and coppice shoots followed by preparation and application of rooting hormone and application of fungicides. The role of cost effective mistless chambers and the requirements for successful rooting of different tree species were also enumerated. Further, the process of composting of coir pith was also demonstrated. The participants were trained in different types of grafting and air layering. The trainees handled different species like teak, *Melia dubia*, Cadamba and Casuarina hybrids. An insight was provided on the nuances of vegetative propagation and different techniques to circumvent the non-responsiveness of cuttings during propagation. The participants freely shared their views and challenges during the training session.

In the Valedictory session, the participants gave their insightful feedback on the training program. Overall, they expressed their satisfaction in the hands-on experience received during the training program. They requested the Institute to provide similar training on seed handling techniques, selection of mother trees for subsequent propagation and tissue culture techniques for mass multiplication. They also expressed that the duration of the training could be increased to include visit to tissue culture facilities and fields. Participants also requested the Institute to extend support towards multiplication of species like sandalwood, Red Sanders and *Vernonia shevaroyensis*. Dr. C. Kunhikannan, Director, IFGTB assured that the Institute would support TNFD in these research endeavours. The training ended with vote of thanks by Dr. S. Saravanan, Scientist F & Head, Extension Division, IFGTB.

## Inaugural Session



## Lecture session



## Hands-on Training

