

Report on
SUMMER INTERNSHIP in Biological Sciences for the college students 2025 at
ICFRE-Institute of Forest Genetics and Tree Breeding, Coimbatore
Module 5: Plant tissue culture and its Applications (26 May- 20 June, 2025)
Coordinators Smt. R. Mahalakshmi and Dr. Rekha R Warriar

The ICFRE-Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore, organized a Summer Internship in Biological Sciences 2025 for undergraduate and postgraduate students. Module 5 of the program, titled “Plant tissue culture and its application,” was conducted from 26th May to 20th June, 2025. A total of eight students from Bharathiar University, PSG College of Arts and Science and Dr. N.G.P. Arts and Science College, Coimbatore pursuing Biochemistry and Biotechnology, participated in this module.

The objective of the training was to equip individuals with the knowledge and practical skills necessary to cultivate plant cells, tissues, and organs in a sterile, controlled environment. The intensive internship aimed to enhance both theoretical understanding and practical competence in cutting-edge techniques.

Key components of the module included Laboratory safety practices and protocols; cleaning and sterilisation procedures of glassware; preparation of stock solutions and preparation of media for various plant species micropropagation; surface sterilisation and inoculation of Teak, Bamboo nodal and seed explants in sterile environment; primary and secondary hardening procedures of TC teak microshoots; waste management; DNA Extraction and Polymerase Chain Reaction (PCR); Interpretation of data and Mini-Project Work, including data presentation and assessment.

The resource persons involved in this internship training include Dr. Rekha R warrier Scientist-G & Training Co-ordinator, Smt. R. Mahalakshmi, TO & Training Co-ordinator, Smt. R. Kalaiselvi, SPF, Smt. K.C. Preethi, JPF, Ms. S.P Jeyachitra, Smt. R.E. Komal, SPF and Smt. Aghila Samji, SRF, Dr. S. Vigneswaran, Smt. K. Chitra, Smt. M. Kasthuri, Smt. M. Mahalakshmi, Smt. M. Velumani, and Smt. E. Anusuya. The students actively participated in all sessions and presented a summary of the training modules and activities during the concluding session. They expressed a strong interest in exploring further the scientific concepts and laboratory techniques introduced during the training. Participants unanimously felt that the training was highly relevant to both their current academic curriculum and future research pursuits. The hands-on experience and exposure to plant tissue culture techniques enriched their understanding and helped unveil latent skills and research potential. Dr. R. Yasodha, Director, ICFRE-IFGTB distributed participation certificates to the students.



R. Mahalakshmi, TO demonstrating autoclave



R. Kalaiselvi, SPF explaining calculations



K.C Preethi, JPF demonstrating aseptic techniques



S.P Jeyachitra, SPF, Demonstrating explant collection



Hardening process explained by Smt Kasthuri



DNA extraction demonstration by Komal R.E, SPF



Assessments and Certificate distribution