PROJECT PROFILE

Project Title: **Micropropagation and tissue culture studies on selected Tree species including procedure for hardening, weaning and out planting**

Principle Investigator: Dr. K. Gurumurthi, Scientist-F

Project Associates: Dr. R. Yasodha, Scientist-E

Ms. R. Sumathi, RA I

Ms. P. Malliga, RA II

Mr. S. S. Jagadeese (1992-1993)

Ms. N. Preetha (1992-1995)

Start and Completion dates : 1992-2001

Objective:

1. Standardisation of micropropagation protocols for bamboos, eucalypts, neem, teak and acacia

Funding Agency: Indian Council of Forestry Research and Education (ICFRE)

Summary:

- Infrastructure required for tree tissue culture which includes a complete tissue culture laboratory and hardening facilities for weaning of in vitro produce plantlets was established.
- Explicit demonstration of various in vitro techniques were given to researchers from state forest departments and various other organisations
- Methodologies for selecting quality planting material followed by bench scale multiplication of important bamboo species were developed
- Strategy for transfer of technology and commercial level propagation was designed through interactive approach
- Increased the awareness on use of tissue cultured plants among user agencies by implementing the cooperative commercial multiplication strategy and plants were supplied
- Patented the process developed for in vitro multiplication of *Oxytenanthera stocksii*
- Rescued a phenotypically superior tree of *Eucalyptus tereticornis* through in vitro propagation

- Difficult to root clones of eucalypts were rejuvenated in vitro and enhanced the rooting potential

- Industrially important hybrids of acacia and *E. urograndis* were multiplied via micropropagation technique

- Important germplasm of selected eucalypts clones are maintained in culture without the loss genetic fidelity

- Optimised micropropagation procedures for the multiplication of superior clones of *E.pellita*