

Project Completion Report

1. **Project Number:** IWST-FRC-Tree Improvement/7 FRC/X 07
2. **Title:** Studies on phenotypic variation in *Pterocarpus santalinus* L. f. and collection of germplasm
3. **Principal Investigator:** Dr. G.R.S. Reddy
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- RAG Approval** April , 2003
- RPC Approval** November, 2003
4. **Project Approval Date:** November 2003
5. **Date of Start of the Project:** November 2003
6. **Date of Completion:** March 2008
7. **Total Budget:** Rs. 0.50 lakhs

8. Background:

The species is distributed in four divisions of Andhra pradesh viz., Cuddaph, Kurnool, Chittoor and Nellore. Owing to its high market value, 'red sanders' was smuggler's pride in the past three decades, in spite of stringent protection measures, The crux of the matter is the fact that dysgenic selection was more acceptable than any other species. In the past forest department has raised it in different parts of A.P. besides Karnataka forest department established certain orchards. It helped conserve the species, in the best way possible. The present study provides to visit such populations in search of variation.

1. Many farmers and some of them well informed are approaching the research centres with a demand for improved varieties or fast growing planting material of red sanders so that

12. Abstract:

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A total of sixty populations were studied based on provenance delimitation criteria and based on stem form, height and GBH, selected some of the populations that are known to be better than the others for these parameters. The populations in Kurnool, Cuddapah, Anantapur and Chittoor districts of AP were surveyed and identified certain trees for their phenotypic superiority and collected their germplasm. The list of trees identified has been passed onto the APSFD for using these populations in their tree improvement program. A number of plus trees were marked in various parts of the AP. Propagated 250 plants from different collections and maintained them well from 60 candidate trees by vegetative means. The vegetative propagation technique could be standardized in this case [though it is a hard to root species]. The period of stem cuttings collection was found to be crucial and the temperature and relative humidity during rooting also played an important role in achieving greater than 95 per cent rooting.

13. Utility of research findings:

The major outcomes are: