

### Project Profile

Project Code:	IFGTB/RP 55/ 2008-2014
Project Title:	Establishment of second generation seed orchards and selection of clones for high productivity in Eucalyptus
Principal investigators	Dr. V. Sivakumar, Scientist-G, IFGTB
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Funding Agency	ICFRE
Project approval date & by	i) RAG: 2011 ii) RPC: 2012 iii) ICFRE: 2012
Date of commencement of the project:	01.04.2012
Date of completion of the project:	31.03.2019
Total Budget of the project:	Rs 39.98 lakhs

### Objectives:

Long term objectives of the project:

1. To establish second generation seed orchards and clones for higher productivity

Short term objectives of the project:

2. To establish broad genetic base populations for maintaining the genetic diversity in the plantations
3. To optimize the genetic gain and diversity in the plantations.
4. To improve the productivity of the plantations through selection of superior trees

### Summary:

Seeds from 100 to 150 families collected during the year 2019 can be used for establishment of BGBB population. The infusion populations were received from Thailand and tests have been conducted to ascertain their adoptability in Indian climatic conditions. Different statistical analysis tools could be compared to estimated the expected genetic gain that can be achieved through breeding programmes. 57 The method of culling was optimised based on the advanced statistical tools and breeding principles and carried out in Marakkanam progeny trial and converted in to Seedling Seed orchard for getting about 7-8% genetic gain. Second generation plus trees (367 number) were selected from the progeny trials based on BLUP estimates for the families and within family selection using the phenotypic superiority. These clones were assembled in VMG for further mass multiplication.