

Project Profile

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| Project Code: | IFGTB/RP 157/2016-2022 |
| Project Title: | Testing of New Set of Provenances of <i>Acacia mangium</i> and Estimation of Genetic Gain from First and Second Generation Seed Orchards |
| Principal investigators | Dr. Maheshwar Hegde, Scientist-E (01.04.2016 to 11.07.2018) Shri. A. Mayavel, Scientist – D (12.07.2018 to 31.03.2022) |
| CO-PI: | Dr. A. Nicodemus, Scientist - G |
| Funding Agency | ICFRE |
| Date of commencement of the project: | 01.04.2016 |
| Date of completion of the project: | 31.03.2020. Extended upto 31.03.2022 |
| Total Budget of the project: | Rs. 18.14 lakhs |

Objectives:

1. Evaluation of different provenances *A. mangium* for survival, growth and form in multi location trials
2. Evaluation of first and second generation seed orchards vis-a vis natural provenances.
3. Estimation of realized genetic gain from breeding programme of *Acacia mangium*

Summary:

Seeds of 13 natural provenance of *Acacia mangium* have been procured from ATSC Australia. Seeds also have been collected from the local, first generation and second generation seed orchards of *Acacia mangium* established by IFGTB at Nilambur and Palode respectively. Sixteen seedlots have been subjected to seed characterization viz., seed weight and length, breadth, perimeter and shape using image analyser. The germination percentage of various seedlots has been recorded. Growth variation in seedlings has been recorded. Established International Provenance Trial (IPT) of *Acacia mangium* at Dandeli, Ramnagar, Karwar (Dist) and Shaklespur, Hasan (Dist) in Karnataka with spacing of 3m x 3 m adopting Row Coloum Design, four replications and sixteen ramets per replications. The provenance trial of IPT has been maintained by adapting silviculture practices suggested by CSIRO- Australia. Regular watering during summer and application of fertilizers has been done in the IPT of *A.mangium* located at Dandeli and Shekleshpura. Evaluated the growth performance of International Provenance trials of *A.mangium* for different growth traits. Early evaluation revealed that IFGTB-II expressed superiority in survival, growth and form traits. The seeds of IFGTB seed orchards had expressed the genetic gain over local and introduced seed lots.