

PROJECT PROFILE

Title of the Project: Germplasm Assemblage of *Melia dubia* in India

Principal Investigator: Dr. Rekha R. Warriar, Scientist-E

Duration of the Project: 2012-2014

Objectives:

1. To assemble diverse germplasm of *Melia dubia* from its natural distribution ranges as Clonal and seed material
2. To screen the germplasm for key insect pests and develop suitable control measures

Funding Agency: Andhra Pradesh Forest Department

Summary

Tours were undertaken to the natural growing belts of *Melia dubia*. The areas were perambulated and patches of naturally occurring trees were selected. Girth at breast height and clear bole length were the main criteria considered for the selection of trees. Single tree collections were made and maintained the identity of the fruits. The fruits and seeds were studied for their fruit and seed weight, physical characteristics like area, length, breadth, perimeter, roundness, aspect ratio, curve length, curve width, convex area and full ratio. The drupes were then subjected to cut tests to study the filling patterns in the seeds collected from different sources. They were also tested for their viability using TZ tests (ISTA rules). Seeds of identified trees maintained with identity and field gene banks in four locations, namely in Andhra Pradesh (Rajahmundry and Nellore), Kerala (Panampally Research Station, IFGTB) and Chennai (Gene Bank of IFGTB) established. Clonal accessions are being multiplied for establishment of CMA at Biotrim Tirupathi.

Insect pests like Red spider mite, defoliator, Mealy bug, Leaf miners, Fruit infesting beetles, Thrips were recorded. Control measures and prophylactic measures have been adopted.