

PROJECT PROFILE

Title: **Production of multi-parent intercross populations of eucalypts for salinity tolerance**

Principle Investigator: Dr. R. Yasodha, Scientist G

Co Investigators: Dr. Sivakumar, Scientist F Dr. Modhumita Dasgupta, Scientist F
Dr. C. Bhuvaneshwaran, Scientist F Dr. A.C. Surya Prabha, Scientist C
Dr. VKW. Bachpai, Scientist D

Duration: 2016-2019

Objectives: Generation of multiparent intercross populations of eucalypts for salinity tolerance

Precision phenotyping of morphological and physiological traits for salinity tolerance

Funding Agency: ICFRE

SUMMARY

- A genetic resource for genetic mapping for salt tolerance using molecular breeding approaches was generated.
- First and second generation clones of eucalypts were assessed for their salt tolerance potential and 15 clones were identified to have different levels of tolerance.
- Four inter-cross families were generated using a salt tolerant clone as pollen parent and one family with higher level of tolerance was identified.
- Specific leaf area (SLA) and root:shoot ratio were found to be the best indicators of salt tolerance in eucalypts.