

Project Profile

- 1. Project Title** : Isolation and characterization of haustorium inducing factors (HIFs) of sandalwood for enhanced seedling survivability in nursery and field conditions.
- 2. Name of the Principal Investigator** : Dr. Modhumita Dasgupta, Scientist G
- 3. Funding agency** : Kerala Forest Department (KFD 16)
- 4. Date of start & end; Total duration** : January 2025 & July 2026
- 5. Total Budget** : 27.209

6. Main Objectives

- Isolation and characterization of haustorium inducing factors (HIFs) of sandalwood from host root exudates.
- Assessment of seedling survivability in nursery and field conditions through application of HIFs.

7. Yearly plan of action

1st year	<ul style="list-style-type: none">• Germination and maintenance of different host species and sandalwood under in vitro conditions.• Extraction of root exudates for bioassay• Metabolite profiling of root exudates using HPLC and LC-MS• Time course bioassay of HIFs on germinated sandalwood seedlings.• Purification of HIFs from root exudates
2nd year	<ul style="list-style-type: none">• Time course application of HIFs in nursery and field conditions.• Recording of seedling, leaf and nutrient parameters in seedlings maintained in nursery and field conditions

8. Progress of the Project in brief

- DMBQ concentration was optimized for pre-haustoria formation in sandalwood seedlings.