

- 1. Project Title** : Evaluation of Multi-location Clonal Trials of *Thespesia populnea*.  
(RP 190/2021-2026)
- 2. Name of the Principal Investigator** : Dr Archana R (2024-2026)  
Dr Kannan C.S. Warriar (2021-2024)
- 3. Date of start & duration** : April 2021 (2021-2026)
- 4. Total Budget** : 33.60 lakhs

## 5. Main Objectives

1. Evaluation of the multi-location clonal trials of *Thespesia populnea*.
2. Identification of superior and stable clones.

## 6. Outline of Research Programme (yearly plan of action)

1 <sup>st</sup> Year	Data collection, analyses and screening for health status
2 <sup>nd</sup> Year	Data collection, analyses and screening for health status
3 <sup>rd</sup> Year	Data collection, analyses and screening for health status
4 <sup>th</sup> Year	Data collection, analyses and screening for health status
5 <sup>th</sup> Year	Data collection, analyses and screening for health status. Identification of stable and superior clones across locations.

## 7. Progress of the Project in brief

Half yearly biometric observations were recorded from the field trials at Gudalur and Thalavaipettai and analyzed the same. The field trial at Panampally was destroyed due to fire on October 9 2023. No pest or disease attack could be observed from any of the trials.

At six-monthly intervals, biometric data including total plant height (TPH), collar diameter (CD) and biomass index (BI) were recorded from all three above-mentioned clonal trials.

With the recently analysed field data, the TPH was found to be non significant and CD and BI were found to be significant at a 5% level of significance and the best-performing clone for CD and BI was found to be clone 17 (4.972 cm) and clone 16 (4945 cm<sup>3</sup>), respectively at Thalavaipettai trial during the third year of planting.

The third-year data recorded from Chennai indicated while analysis that, TPH and BI are found to be significant at a 5% level of significance and CD was found to be non significant and the best-performing clone for TPH and BI were clone 29 (182.8cm) and clone 30 (3715 cm<sup>3</sup>), respectively.

## **8. Action taken on the recommendation of RAG 2023**

Nil

## **7. Publications made:**

Rajasugunasekar, D., Lingeshwaran, P.K. and Soosai Raj. J. 2022. “Karyotype profiling and insights on pollinators in the indigenous tree species of *Ailanthus triphysa*” in the proceeding of first National Conference on Emerging Trends and New Vistas in Applied Sciences (NCETNVAS 2022) organized by Society for Nature and Applied Sciences in collaboration with Nandha College of Pharmacy & Nandha Group of Institutions Erode, Tamil Nadu, India, during 31st December 2022 (ISBN No. 9788195709908).  
Soosai Raj, J., Lingeshwaran, P.K. and Rajasugunasekar, D. 2021. Status and constraints in macro propagation of *Ailanthus excelsa* Roxb. National conference on “Clonal Forestry in Eco-Restoration (NCCFER-2021)” organized by Forest Research Centre for Eco-Rehabilitation Prayagraj, Dehradun, Uttar Pradesh (India) during 10th to 11th November 2021. Pp-43.

Lingeshwaran, P.K., Soosai Raj, J. and Rajasugunasekar, D. 2021. Clonal Forestry for Environmental Resilience to Climate Change. National conference on “Clonal Forestry in Eco-Restoration (NCCFER-2021)” organized by Forest Research Centre for Eco-Rehabilitation Prayagraj, Dehradun, Uttar Pradesh (India) during 10th to 11th November 2021. Pp-34.

Rajasugunasekar, D., Soosai Raj, J. and Gopal, G. Effect of Indole-3-Butyric Acid In Clonal Propagation of *Ailanthus excelsa* Roxb. Through Coppice Shoot Cuttings. Virtual Workshop on “Clonal Propagation of Tree Species” 7th October 2020, organized by Institute of Wood Science and Technology (IWST), Bangalore. Pp.3.

A. Mayavel, D. Rajasugunasekar, Kannan C.S. Warriar, V. Sivakumar and A. Nicodemus: New Initiatives for Improving Indigenous trees IFGTB Newsletter April-June 2020. (Popular article )

D. Rajasugunasekar, A hand book on Productivity enhancement in Forestry Plantations published by ICFRE-2020. Tree improvement of *Ailanthus* species for increasing productivity.

Rajasugunasekar, D., Poonkodi K, Soosai Raj J, Gopal., G and Ramesh, P.M., (2019) Oral Presentation on “*Ailanthus excelsa* (Roxb) Multipurpose use to augment and improve human health” National seminar on Forestry, plant genetics and improvement KFRI, Peechi 3rd and 4th December 2019.

Rajasugunasekar, D., Manimuthu, L., Gopal., G, Ramesh, P.M., (2019) Poster Presented on Clonal Multiplication and preliminary evaluation of clones of *Ailanthus excelsa*, Roxb. National workshop on securing demand through enhancing productivity of planted forests, IFGTB Coimbatore 29th to 30th January 2019