Project title	Development of biopesticide formulation from seed oil of *Simarouba glauca* DC for use in forestry.
Principal Investigator	Dr. N. Senthilkumar
Co-Investigators	Dr. S. Murugesan Smt. R. Sumathi
Project duration (Start & End)	3 years: 2017-2020
Objectives	• Survey and identification of potential resources of *Simarouba glauca* having high seed and oil yield in Tamilnadu, Kerala, Karnataka and Andhra Pradesh. • Bioassay directed characterization of active components from seed oil of *Simarouba glauca* • To develop biopesticide formulation using most effective active ingredients for the management of insect pests of forestry crops. • Evaluate efficacy of biopesticide formulation against selected forestry and agriculturally important insect pests
Summary/Achievements	Potential seed sources of *Simarouba glauca* were identified in Tamilnadu, Kerala, Andhra Pradesh and Karnataka through extensive survey and seeds were collected from identified seed sources, processed and extracted oil. The oil yield was found to range from 16.52 to 34%..*S.glauca* seed oil was tested against the 3rd instar larvae of the tobacco cutworm *Spodoptera litura*. The percentage of antifeedant activity was observed as 74.30±1.98.In vitro bioassay study was carried out for *S. glauca* seed oil against the agriculture pest *Helicopverpa armigera*. Antifeedant index was calculated as 78.88% in 24 hrs.The major active ingredient, oleic acid content in *S. glauca* seed oil is found to be as high as 51.29 % which is responsible for its antifeedant/ insecticidal activity against targeted insect pests.
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