

## PROJECT PROFILE

<b>Project title</b>	<b>Development of microbial inoculants consortia for quality seedling production and imparting training cum demonstration on bio fertilizer production and application in nursery and field</b>
<b>Principal Investigator</b>	Dr. V. Mohan, Dr. A. Karthikeyan
<b>Co-Investigators</b>	Nil
<b>Project duration (Start &amp; End)</b>	3 Years (1-04-2019 to 31-03-2023)
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Determine the status of beneficial microbes in association with seedlings of different tree species raised and maintained in SFD nurseries of Kerala state.</li> <li>2. Evaluation of the efficacy of different microbial inoculants on quality seedling production in tree nursery for development of beneficial microbial consortia.</li> <li>3. Imparting training cum demonstration on biofertilizer production and application techniques to Kerala state forest department officials of different divisions in Kerala.</li> </ol>
<b>Funding agency</b>	Kerala Forest Department
<b>Summary/Achievements</b>	<p>The usage of PGPR promoting plant growth involves abiotic stress tolerance in plants, nitrogen fixation, production of siderophores, production of volatile organic compounds and production of enzymes that prevent plant diseases. In the current study, Rhizosphere soil samples collected from the root zone of 28 different commercially important tree species from Chettikulam, Nilambur, Kulathupuzha. Antagonistic potential of the 36 isolates were studied against the selected six different plant pathogens. It was observed that, the Actinomycetes isolates C8 and C12 showed antagonistic activity against most of the fungal pathogens in Chettikulam, the isolates N8 (Actinomycetes) and N9 showed antagonistic activity against most of the fungal pathogens in Nilambur and Actinomycetes isolates K1 and K10 showed antagonistic activity against most of the fungal pathogens. Minimum number of AM fungal spores were recorded in the rhizosphere soil samples of Bambusa bamboo (990/100 g soil) in Kulathupuzha.</p>