

PROJECTS COMPLETED DURING THE YEAR 2007–08

PLAN PROJECTS

Project-1 Stability test of various clones and progenies for different characters in *Gmelina arborea* [RFRI/ TI-10/2003-06]

Findings: Progeny trial studies of selected families revealed better performance of progenies at Teliamura, Tripura (with 69% survival, 5.9 m height and 17.0 cm collar diameter) as compared to Imphal, Manipur (with 62% survival, height 3.4m and collar diameter 10.4 cm). Genetic and environment interaction was found significant at 0.001 level of significance both for height and collar diameter. This shows that progenies differ significantly in their performance at these two different sites. Half-sib progenies of RRI/GA31 clone registered maximum germination per cent. The overall germination was recorded to be 26%. The tetrazolium test revealed 12 % partially viable and 1% non-viable seeds. Seeds of progeny number RFRI/GA/43 were found to be most (93%) viable compared to other progenies.

Project-2 Bioecological studies of seed insect pests of *Dipterocarpus retusus* [RFRI/FE-12/2005-08]

Findings: A total of 9 species with seven genera belong to the order Coleoptera and Lepidoptera was recorded as insect pests on the seeds of *D. retusus*. *Thamnurgides monoceros* Beeson (Coleoptera: Scolytidae) and *Enarmonia pulverulla* Meyrick (Lepidoptera: Tortricidae) were recorded 100 percent frequency, correspondingly the relative density was also recorded high values for *E. pulverulla* (38.68) followed by *T. monoceros* (25.79) during the survey periods. Damage loss of seeds due to seed insect pests of Dipteroocarps was made. The percent insect infestation on seeds of *D. retusus* collected from forest floor ranges between 42.86 and 77.40. However, only 37.5 to 58.18 percent of insects' infestation was observed in aerial collection.

Project 3: Genetic improvement and clonal propagation of *Dipterocarpus retusus* [RFRI/TI-11/2004-07]

Findings: Among seventeen progenies and check planted in Seedling Seed Orchard (SSO) at RFRI campus the progenies DMP-9, DMP-2, and JKG-2 were found to be superior for traits viz. plant height (Ht), Diameter at Breast Height (DBH), height at first branching and Crown Diameter (CD). Under development of clonal propagation protocol 17-20% rooting was achieved in shoot cuttings of three genotypes of *D. retusus*. There is no report of rooting of the species. A follow up project on clonal propagation has been continued from 2007-10.