

PROJECTS COMPLETED DURING THE YEAR 2008-2009

PLAN PROJECTS

Project 1: Development of appropriate silvicultural systems for selected medicinal flora of Chhotanagpur and Santhal Parganas. [IFP-022/FMS -3/2003 – 08]

Findings: Plant propagules from natural forests of West Bengal and Jharkhand were collected. Vegetative propagation techniques were standardized for *Rauvolfia serpentine*, *Gloriosa superba*, *Asparagus racemosus* and *Withania somnifera* in Jharkhand. Growth of four species of medicinal plants were recorded under the shade of trees viz. Teak, Sisham, Khair and Sal. Exploitable plant parts of three species of medicinal plants were collected and preserved year wise for a span of four years.



Cultivation of *Asparagus racemosus*

Project 2: Vulnerability assessment of climate change and development of adaptation strategies to mitigate the impact on seed and biomass production in forest trees and herbs. [IFP-029/FMS -4/2005 – 09]

Findings: Developmental stability of leaves in Neem and Sissoo is demonstrated suggesting that air pollutants and their associated changes in the environment such as increase in temperature and humidity did not induce genotypes to change to their environment. Hence, plants have inherent physiological adaptations to overcome evils of environment. Plants do not suffer under optimal water regimes, even under the influence of air pollutants indicating fair resistance to them. However, herbs showed susceptibility to diseases and pests under prolonged exposure to air pollutants.