

CHAPTER-XI

CENTRE FOR FORESTRY RESEARCH AND HUMAN RESOURCE DEVELOPMENT, CHHINDWARA

Centre for Forestry Research and Human Resource Development, Chhindwara (T.F.R.I., Jabalpur) is a newly established centre with mandate to take up forestry research in specialised areas and develop human resource for poverty alleviation.

OBJECTIVES OF THE CENTRE

The main objectives of the centre are :

1. Developing systems for sustainable forest management.
2. Increasing forest productivity through genetics and tree improvement programmes.
3. Improving utilization of forest produce.
4. To undertake studies on socio-economic aspects related to resource management and environment protection.
5. Human Resource Development through training in Nursery and Plantation technology.

HUMAN RESOURCE DEVELOPMENT

In view of inadequacy of trained personnel in forestry sector, the centre has designed the following training programmes in Nursery and Plantation Technology.

1. Junior Certificate course of 4 months for ground level users.
2. Senior Certificate course of 8 months duration for middle level users.
3. Short duration refresher courses for different user groups.

The progress in respect of these courses during the year is as under:

- i. Completed 2 (two) Junior Certificate Course in Nursery and Plantation Technology.
- ii. Curriculum development for Senior Certificate Course was done and the course was launched.
- iii. Development of training programme in agroforestry for forest farmers.

RESEARCH PROGRAMMES

Studies on the impact of J.F.M. approach on forest productivity

Micro plans of 4 villages of Chhindwara district viz. Meghaseoni, Umariya-Issra, Navegaon and Chikatabarri have been studied. Appropriate literature has been collected, relevant people have been contacted. A Questionnaire has been developed to survey the named villages.

Studies on environment impact assessment and reclamation of open cast mined areas in PENCH-KANHAN region

Survey was conducted in affected areas at Damua, Parasia and Chhindwara. Further work is in progress.

Phyto-chemical examination for the utilization of leaves, bark, fruits and roots of some native forest species

Exploratory floristic tours were conducted to Patalkot and Tamia valley region of Chhindwara district for collection of plant materials. 55 plant species were collected and herbarium is being prepared. Taxonomic identification of the plant materials collected is in progress.

Essential oil was extracted from five *Eucalyptus* species and evaluated for antimicrobial activity. Literature pertaining to the natural aromatic products is being regularly surveyed and collected.

Ecology and control of insect pests of teak, *Tectona grandis* in Chhindwara and adjoining areas

Collection of basic information on the major insect pests damaging teak is in progress. In selected nurseries and plantations, the insect pests damaging teak were identified (in relation to climatic condition) and assessment of losses recorded. The major insect pests causing damage were the defoliator *Hyblaea puera* skeletonizer, *Eutectona machaeralis*, white grubs *Holotrichia* spp. and termite *Odontotermes* spp.

In order to test the efficacy of two varietal products of *Bacillus thuringiensis* (Bioasp and Biolep), a field trial was conducted at Chandameta (M.P.). On the larvae of teak skeletonizer, *Eutectona machaeralis*, different concentrations of these products were sprayed on the host plant (5 years. old). The result showed that Bioasp 2% was highly effective and better than other concentrations against this pest.

FIELD STUDIES

Nursery/Plantation pests: Nine insect pests were identified from multipurpose tree species in six nurseries and plantations in selected localities of Chhindwara and adjoining areas.

- A field trial was laid out on the Aphids of *Albizia lebbek*. Result showed that 0.01% Fenvalerate followed by Multiplex (Multineem) 0.3% was most effective in reducing the Aphid population after 6 days.
- A field trial laid out indicated that in case of the larvae of neem leaf fodder defoliator, *Cleora cornaria*, Decis (Deltamethrin) 0.005% was most effective.
- 2. As a demonstration for the trainees, 200 kg vermicompost, was produced with (2.5x1x1m Size bed) 100 number of juvenile earthworm *Eisenia foetida*, forest litter and cow dung.
- 3. Experiments were conducted to find out the effect of vermigold and rose gold on the growth of bamboo seedlings. It was observed that vermigold 200 gm + FYM + sand (in 20 x 10 cm size polythene beg) is effective to boost the growth of bamboo seedlings.



Training in teak bud grafting



Demonstration of nursery skills



Observations in seed production area



SFRI nursery, Amarkantak, M.P.