SUPPORTING DOCUMENTS

3.5.2

NUMBER OF FUNCTIONAL MOUS WITH INSTITUTIONS, OTHER UNIVERSITIES, INDUSTRIES, CORPORATE HOUSES ETC.

(2024-2025)

HIMALAYAN FOREST RESEARCH INSTITUTE (HFRI), PANTHAGHATI, SHIMLA, (H.P)

Memorandum of understanding was signed between St. Bede's College, Shimla, and Himalayan Forest Research Institute (HFRI), Panthaghati, Shimla, (H.P) on 08th November, 2024.

LIST OF ACTIVITY DONE UNDER MOU

Activity Name: Three-day training program on "Seed, Nursery and Plantation Techniques of Oak Species" for other stakeholders

Date: 23- 25th October, 2024

Venue: ICFRE-Himalayan Forest Research Institute (HFRI), Panthaghati, Shimla

Objectives:

- To comprehend knowledge and skills to get an employment or to become an entrepreneur in plant nursery sector.
- To understand the importance of Oak species in Himalayan Ecosystem.
- To understand plant nursery and basic infrastructure to establish it.
- To explain the basic material, tools and techniques required for Oak nursery.
- To infuse entrepreneurial skills of commercialization of nursery production.

Description: The 3-day training program on "Seed, Nursery and Plantation Techniques of Oak Species" for other stakeholders." was organized by ICFRE-Himalayan Forest Research Institute (HFRI), Shimla during 23-25, October, 2024. The programme was funded by the MoEF&CC, New Delhi. The aim of this training programme was to develop skills in nursery management of Oak species. About 28 trainees (17 men and 11 women) from different colleges, gram panchayats and army soldiers of Himachal Pradesh participated in the training program. The Post graduate students (M.Sc-Botany) from Department of Botany, St. Bede' College participated in the training. The program was inaugurated by Col. Mohan Singh Commandant 133-Eco Task Force, Shimla. Dr. Sandeep Sharma, Director, HFRI welcomed the guests and felicitated the chief guest. The Chief Guest addressed and motivated the trainees to take up the nursery business. Dr. P.S. Negi senior scientist, HFRI briefed about the significance of program and the 3 days training schedule. The registration kit was distributed to the trainees by the guests. The vote of thanks was given by Dr. Swaran Lata Scientist, HFRI.

The training sessions included different aspects of Oak species *viz*., distribution and uses of Oak, their diseases and ecofriendly management. The status of agroforestry in Himachal Pradesh was also discussed. The exposure visits to field research station (FRS), Shilaru and Oak Forest, Kufri and Narkanda were arranged for the trainees. The hands-on training on different propagation techniques were also given to trainees.

On third day of training program various key topics like Nutritive value of Himalayan Oak, Plantation techniques, Insect pests and their control measures and Assessment of carbon stock of Shimla Forest Area were discussed. The hands-on training was given to students during laboratory visits. Students got the insight of high-tech instrumentation like atomic spectrophotometer, Nitogen estimation system, C H N S Analyser, PCR machines, Tissue micro-organiser, Sonicator, High pressure liquid chromatography, Muffle furnace, Seed germinator, Vacuum packaging machine etc. Students also got an opportunity to interact with

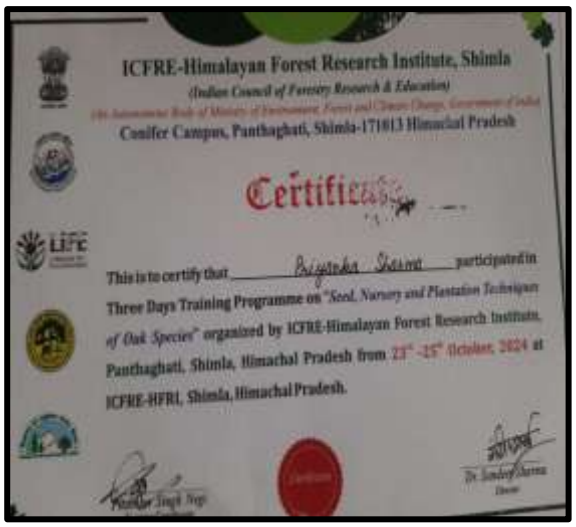
the scientific staff and other stakeholders. Thereafter detail discussions were held between participants and experts. All queries of participants were satisfied with expert opinion

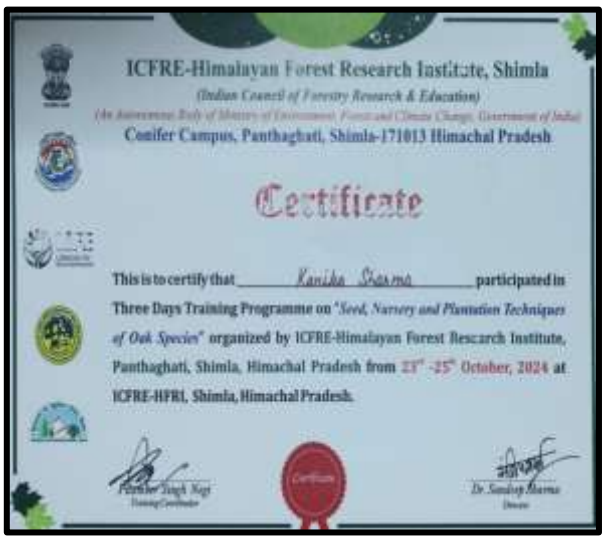
Sh. Anil Joshi, Member Secretory, HP state pollution control board was the chief guest for the valedictory ceremony. He distributed the certificates to all the trainees and requested them to utilize the knowledge obtained during training programme. Finally, in the wrap-up session, Sh. P.S. Negi thanked all the participants for their active involvement during the lectures and hoped that they will apply the knowledge gained in this training and will definitely get the benefits.

Outcomes:

The training imparted basic knowledge and developed skills about the propagation of Oak species. It provided basic knowledge related to establishment of commercial plant tissue culture unit. It updated the skills of students about importance of nursery management practices for producing elite, disease free planting material by different propagation methods including tissue culture. The students got exposed to practical experience of several techniques in propagation of Oak species and also to commercial nurseries who multiply large number of plants and meet the demand of industry. The training program helped the students to enhance their class room learning.

Brochure





Three-day training program on "Seed, Nursery and Plantation Techniques of Oak Species" for other stakeholders