

Calendar

Short Term Training Courses

2017



FOREST RESEARCH INSTITUTE
(Indian Council of Forestry Research and Education) DEHRA DUN

Short Term Training Courses at FRI, Dehradun

Set in the sylvan surroundings of Doon Valley and having a history of about a century of forestry research is an ideal seat for learning in forestry. FRI contributes the research perspectives focusing on different aspects of forestry research to different stake holders. The manifold research programmes related to enhancement of forest productivity through quality seed and planting material, agroforestry, medicinal & aromatic plants, eco-rehabilitation, forestation techniques for stress sites, bamboo & bio fertilizers, evaluation & utilization of plantation timber to name a few.

Training as a part of extension is an important function of the Institute towards capacity building. The institute organizes Short Term Training Courses (STTC) in seventeen disciplines to keep managerial level officers, supervisory staff and field officers abreast with recent research developments in forestry and to transfer the latest technologies. In addition to this Short Term Low-Cost Training Courses will also be organized as provided separately in this brochure.

The faculty to impart these trainings consist highly qualified, experienced and skilled professionals and researchers. The Institute has a well-developed infrastructure of laboratories, computer center, library, herbarium, arboreta, nurseries and experimental field for conducting research and training programmes. Excellent boarding & lodging facilities are available at the Scientists Hostel and Officers Rest House of the Institute with adequate means of recreation.

Course Contents

- 1. Value addition and utilization of bamboos:** Bamboos propagation techniques; Importance of bamboo preservation; Methods of bamboo preservation; Chemical seasoning of round bamboos; Bamboo utilization for panel products; Bamboo packing case for horticulture produce; Bamboo staining and polishing.
- 2. Bamboo propagation and clonal nursery management:** Introduction to Bamboo and their utilization in rural and urban society: Germplasm collection, Establishment and maintenance of genetic resources of bamboos. Infrastructure development for bamboo propagation, Mass multiplication of important bamboos through low cost clonal technologies, Farmers friendly technologies for bamboo multiplication, management of bamboo clonal nursery etc.
- 3. Vegetative propagation technologies for genetic improvement:** Conventional and tissue culture techniques for multiplication of important forest tree species, infrastructure development, maintenance of clonal nursery and propagation complex through insect/disease management, technology transfer in field.
- 4. Finger jointing for efficient wood utilization:** The Finger joining technique – uses, design aspects, adhesive aspect, machinery, structural and non-structural usages, glulams, strength aspects, role of moisture and seasoning, finishing aspects, hands-on practice.
- 5. Plywood manufacture:** Plywood raw materials both wood and adhesive manufacture of veneer, plywood block board and Flush doors, their properties and testing preparation and testing of adhesives. Plywood, Laminated of adhesives, plywood, Laminated Veneer Lumber (L.V.L.), Impreg and compreg and other in panel products.
- 6. Nursery diseases and their management:** Ideal nursery practices; Soil health and its importance; Improved planting material; important nursery diseases and their identification; disease management methods including cultural, chemical and biological.

- 7. Taxonomic identification of wood decaying fungi :** Wood Decaying Fungi: ecological importance, Diseases and losses caused by wood decay fungi, Urban Forestry, Field collection, Cultural preservation, biotechnological applications, Identification based on macro and microscopic characters, future prospects in fungal taxonomy
- 8. Wood and bamboo preservation and its utilization:** Importance of preservation, seasoning, products, composite, finishing, working properties and appropriate utilization of wood and bamboo.
- 9. Wood seasoning:** Importance of seasoning, Equilibrium moisture content; Moisture content values and tolerances for end products; Influence of climatic zones on moisture content; Seasoning schedules, Seasoning kilns (solar, steam, vacuum press drying, dehumidification drying etc.) ; Other seasoning methods like chemical seasoning of plantation species like eucalyptus and poplar.
- 10. Tree seed technology:** Seed technology, Nursery technology, Plantation technology, Bamboos propagation, Soil fertility management in plantation, Vermin-compost. Management of plant insect pests in nursery and plantations, fungal disease of nursery and management, visit to seed lab, Botanical garden, Medicinal plant nursery etc.
- 11. Application of remote sensing and GIS in forest resource assessment:** Remote sensing(RS); Principles of remote sensing; Indian Remote Sensing Satellites and Sensors, Recent RS/GIS technological trends, Licensed and open source software for RS/GIS, installation of open source software on individual laptops, Demonstration of essential tools of licensed and open source software, Sources for free satellite data downloading, Hands on exercise for downloading of satellite data and its handling basic image handling procedures like layer stacking and mosaicking.
- 12. Classification and grading of timber:** Testing of wood and classification of timbers for different end-uses, Defects in wood, their measurement and evaluation, Visual grading of timber, Machine grading of timber.
- 13. Extraction, quality assessment, value addition and applications of fragrant oils from aromatic plants:** Overview of fragrant oils; Introduction to fragrant oil yielding plants; Techniques for extraction of fragrant oils; Quality assessment of fragrant oils; Practices for value addition of fragrant oils; Industrial applications of fragrant oils; Laboratory demonstrations of methods and techniques for extraction and quality assessment of fragrant oils.
- 14. Improved seed & nursery technology:** Seed technology of forestry species, Raising quality seedlings in nursery, Nursery management-Agroforestry, Soil fertility management in nurseries, Management of plant insect pest attacks, Fungal diseases of nursery and plantation and their management Visit to FRI museums, nurseries and plantations. Botanical Garden and Bambusetum etc.
- 15. Wood processing for value addition in wood products :** Strength properties of wood; Wood preservation with reference to joinery timbers; Wood preservatives and pressure treatment plant; Seasoning aspects of wood; Basic Machine Wood Working; Wood Finishing; Composite wood products and their manufacture.
- 16. Cultivation, value addition and marketing of medicinal Plants:** National scenario of medicinal plants, Seedling production and vegetative propagation of selected important medicinal plants in nursery and their management, Post harvesting management and value addition and marketing, field visit.
- 17. Nursery & plantation management:** Establishing modern seedling and clonal nurseries, nursery operations, source of superior germplasm and their management, seed handling and vegetative propagation techniques, planting and aftercare, cultivation technology of important forest trees, protection measures against insect pests and diseases in nurseries and plantations.

Forest Research Institute, Dehradun Calendar of Short Term Training Courses - 2017

Name of the Course	NAME OF COURSE DIRECTOR & DIVISION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1. Value addition and utilization of Bamboos	Dr. Kishan Kumar, Forest Products Division Ph. No. 0135-2224398/4399						05-09						
2. Bamboo propagation and clonal nursery management	Dr. Meena Bakshi, Botany Division Ph. No. 0135-2224410					15-19							
3. Vegetative propagation technologies for genetic improvement	Dr. Meena Bakshi, Botany Division Ph. No. 0135-2224410							10-14					
4. Finger jointing for Efficient Wood Utilization	Dr. Sachin Gupta, Forest Products Division Ph. No. 0135-2224443							17-21					
5. Plywood Manufacture	Shri D.P. Khali Forest Products Division Ph. No. 0135-2224451							24-28					
6. Nursery diseases and their Management	Dr. Amit Pandey Forest Pathology Division Ph. No. 0135-2224314								01-05				
7. Taxonomic Identification of Wood Decaying Fungi	Dr. Manoj Kumar, Forest Pathology Division Ph. No. 0135-2224241									04-08			
8. Wood and Bamboo Preservation and its Utilization	Dr. Sadhna Tripathi, Forest Products Division Ph. No. 0135-2224445								21-25				
9. Wood Seasoning	Dr. N.K. Upreti, Forest Products Division Ph. No. 0135-2224394									11-15			
10. Tree seed Technology	Dr. Ombir Singh, Silviculture Division Ph. No. 0135-2224469									18-22			
11. Application of remote sensing and GIS in forest resource assessment	Shri Manoj Kumar, Forest Informatics Div. Ph. No. 0135-2224370									25-29			
12. Classification and Grading of Timber	Dr. Y.M. Dubey, Forest Products Division Ph. No. 0135-2224395											20-24	
13. Extraction, Quality assessment, Value addition and Applications of fragrant oils from aromatic plants:	Dr. V.K. Varshney, Head, Chemistry Division Ph. No. 0135-2224208					24-26					11-13		
14. Improved Seed & Nursery Technology	Dr. Manisha Thapliyal, Silviculture Division Ph. No. 0135-2224467										23-27		
15. Wood processing for value addition in wood Products	Dr. Kishan Kumar, Forest Products Division Ph. No. 0135-2224399/4398												11-15
16. Cultivation Value addition and Marketing of medicinal Plants:	Dr. A.K. Sharma, N.W.F.P. Division Ph. No. 0135-2224499												04-08
17. Nursery & Plantation Management	Dr. Dinesh Kumar, Silviculture Division Ph.No. 0135-2224610											06-10	

Low-Cost Training Courses For Field Staff, Farmers & Artisans

The following low-cost short term training courses for state government and NGOs sponsored field staff, farmers, artisans, JFM/VFP committees, SHG members, etc. shall be conducted at Shatabadi Van Vigyan Kendra, City Campus of FRI during 2017. These courses are designed as per the requirements of the sponsoring agencies.

1. Low-cost clonal/propagation

Course Director : Dr. Meena Bakshi, Botany Division
Ph. No : 0135-2224410
Dates : 14th to 18th August, 2017
Course contents : Infrastructure, development for clonal propagation of important forest tree species; Mass multiplication for production of superior planting stock of Shisham, Eucalyptus, *Casuarina*, *Grewia*, *Teak*, *Terminalia* and Medicinal plants; Maintenance of clonal material in nursery; Transportation of reproductive and planting material; Infrastructure development and maintenance of propagation complex, Technology transfer in the field.

2. Cultivation of edible mushrooms:

Course Director : Shri Suresh Chandra, Forest Pathology Division, FRI.
Ph. No. : 0135-2224258
Dates : 4th to 06th July, 2017
Course contents : Awareness about mushrooms; their nutritional value; selection of substrate, techniques of cultivation, Precautions; value addition and marketing. Various steps of mass production of Oyster and Shitaki mushrooms for the small growers and SHGs.

3. Keera-Jari (*Ophiocordiceps sinensis*):

Course Director : Ms. Ranjana Juwantha, Forest Pathology Division, FRI.
Ph. No. : 0135-2224258
Dates : 16th to 18th November. 2017
Course contents : Medicinal uses and Ecological Concerns.

4. Hands on propagation of medicinal plants:

Course Director : Dr. A.K. Sharma, Non Wood Forest Products Division
Phone No. : 0135-222-4499
Dates : 12th to 14th July, 2017
Course contents : National Scenario of Medicinal Plants, Seedling Production and vegetative propagation of selected Important Medicinal Plants in nursery and their management, practical demonstration of FRI write technique an alternative of air layering for production of tall medicinal plants, field visit.

5. Practical resin tapping :

Course Director : Dr. B.P. Tamta, Non Wood Forest Products Division.
Ph. No. : 0135-222-4498
Dates : 25th to 27th October, 2017
Course contents : Resin production scenario in India, Resin Tapping, Technology, Hands on experience in resin tapping from *Pinus roxburgii* using FRI rill & borehole methods, Techniques of enhancement of resin tapping, collection of storage & field visit.

6. Nursery & plantation techniques:

- Course Director : Dr. Dinesh Kumar, Silviculture Division.
Ph. No. : 0135-222-4610
Dates : 30th October to 03rd November, 2017
Course contents : Establishing modern seedling and clonal nurseries, nursery operations, source of superior germplasm and their management, seed handling and vegetative propagation techniques, planting and aftercare, cultivation technology of important forest trees, protection measures against insect pests and diseases in nurseries and plantations.

NOMINATIONS

Nomination letters for the courses to be conducted at FRI Dehradun may be addressed to the Course Director of the concerned training and a copy may be sent to :

**Head, Extension Division
Forest Research Institute
P.O. New Forest
Dehradun – 248 006 (Uttarakhand)**

Phone: 0135 – 2758606

Fax: 0135 - 2756865

E-mail: headext@icfre.org

Website : <http://fri.icfre.gov.in/> www.icfre.org

- ❑ The requisite course fees (through demand draft drawn *in favour of* the **Director, Forest Research Institute, Dehradun, and payable at Dehradun**) should reach on the above address at least 30 days before the commencement of the respective courses.
- ❑ **Participants are advised to commence their journey for the training only after getting confirmation about the course programme from the concerned Course Director at the telephone numbers.**

COURSE FEES

- ❑ The course fees for STTC (including boarding & lodging charges) per participant is as follows:
 - ★ Rs. 10,000 for Indian nationals, Rs. 22, 000 for SAARC countries, and
 - ★ Rs. 40,000 for other foreign nationals.
- ❑ Course fee for “Low-cost short term training courses only for farmers, artisans, etc. per participant is Rs. 5,500.
- ❑ Institutional charges @20% on course fees will be charged extra for each course.
- ❑ The minimum number of participants for each course must be 10 (ten).

Low cost Short Term Trainings to be conducted at Centre for Social Forestry and Eco- Rehabilitation (CSFER), Allahabad (U.P.)

1. **Nursery and planting techniques**

Course Director : Dr. Anita Tomar
Ph. No. : 8052298888
Dates : 8-9th November, 2017
Course contents : Designing of nursery, Types of Containers in Nursery, raising of plants of important species in nurseries, Collection, processing and storage of seed, macropropagation, maintenance of plantation, pre-sowing treatments for enhancing seed germination, Significance of Potting mixture in nurseries, Improved Seed Technology.

2. **Waste lands reclamation**

Course Director : Sh. Alok Yadav
Ph. No. : 9411166881
Dates : 12-13th September, 2017
Course Contents : Categories of wastelands, Causes and effects of land degradation, Methods of waste land reclamations, Potential of tree species in reclamation of wasteland, Government policies and schemes for reclamation

3. **Cultivation and marketing of important timber species**

Course Director : Dr. Anubha Srivastav
Ph. No. : 9451180868
Dates : 30-31st October, 2017
Course Contents : Nursery and multiplication techniques, Cultivation techniques of important timber species, Utilization and marketing.

4. **Agroforestry**

Course Director : Dr. Kumud Dubey
Ph. No. : 9415214010
Dates : 12-13th December, 2017
Course Contents : Selection of tree – crop combinations, focus on Eucalyptus, Poplar and *Melia dubia*, Agroforestry models, Marketing and extension

Nomination letters for the above courses to be conducted at CSFER, Allahabad may be addressed to: Director
Centre for Social Forestry and Eco-rehabilitation, Allahabad (Indian Council of Forestry Research & Education), 3/1, Lajpat Rai Road, New Katra, Allahabad-211002 INDIA,
Phone: +91-0532-2440795 (O), FAX: 0532-2440795



Training on essential oil and aroma therapy



Interaction with farmers during field visit



Certificate distribution



Training on Bamboo utilization

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