



Poplar based Agroforestry



Scientist interact with farmers during training



Field visit during training



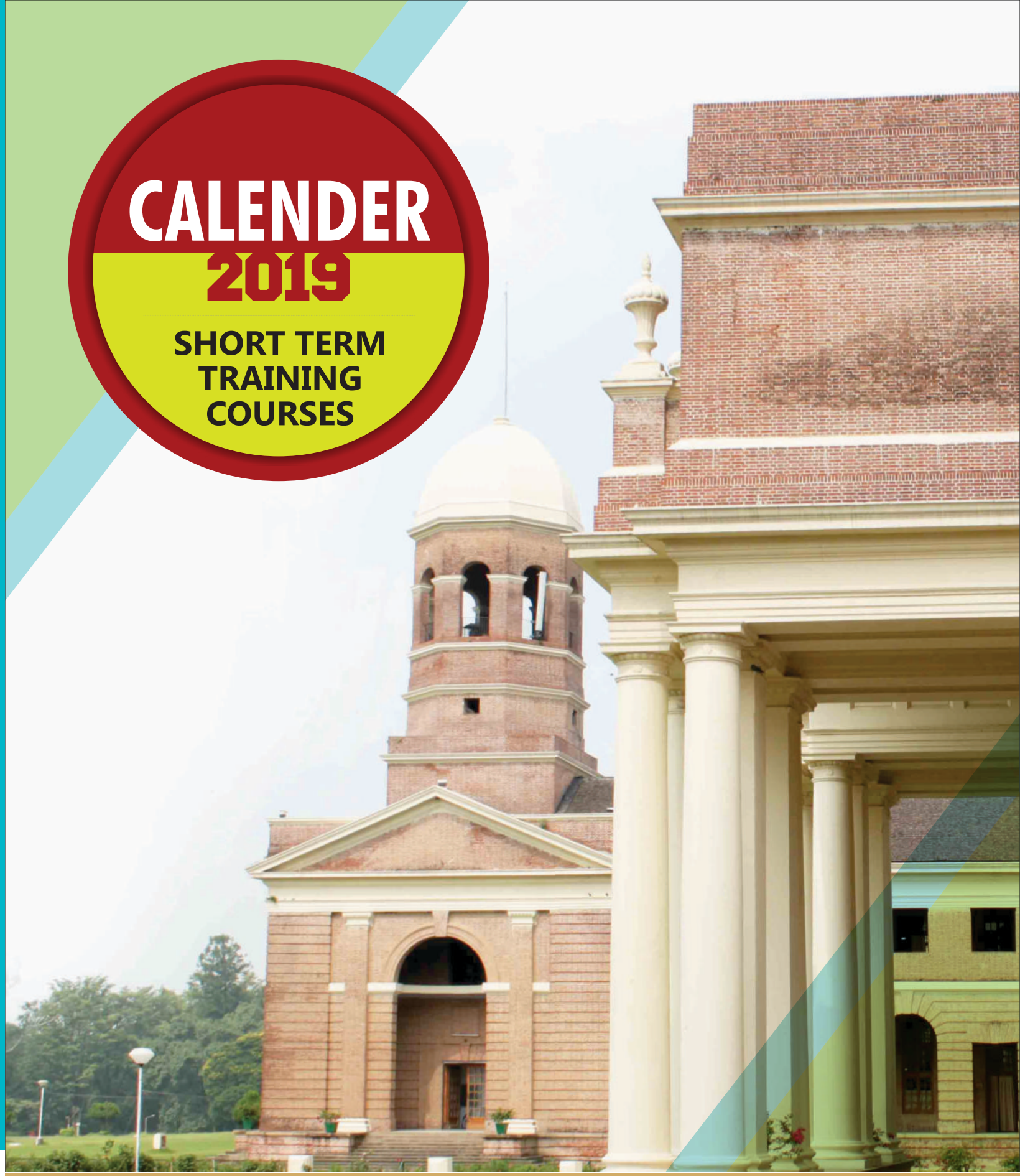
Interacting in Forestry Chaupal



Showcase FRI technologies on the day

CALENDER 2019

SHORT TERM TRAINING COURSES



PUBLISHED BY DIRECTOR, FOREST RESEARCH INSTITUTE

P.O. New Forest, Dehradun – 248 006 (Uttarakhand)

Phone: 0135 – 2755277 **Fax:** 0135 – 2756865

Website: <http://fri.icfre.gov.in> **E-mail:** dir_fri@icfre.org

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

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 & aromatics 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 twelve 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. Insect pest management in forest nurseries, plantations and natural forests: Introduction to Forest Entomology; Insect orders important in Forestry (Orders; Coleoptera, Lepidoptera, Hymenoptera, Hemiptera, Isoptera, Orthoptera, Diptera etc.) & their identification, Habits & Role of insects in forest ecosystem, population dynamics and Insect Pests of Nurseries- Symptoms, extent and nature of damage, preventive and control measures of important pests.

2. Nursery and Plantation Management: Establishing modern seedling and clonal nurseries, nursery operations, sources 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.

3. Bamboo propagation and clonal nursery management : Introduction to Bamboos and their utilization in rural and urban society, Germplasm collection, Establishment and maintenance of genetics resource 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. & Valedictory session.

4. Wood and bamboo preservative and its utilization: Importance of preservation, Seasoning, products, Composites, Finishing, Working properties and appropriate utilization of wood and bamboo.

5. Reducing wastage in dimensioned lumber through Finger Jointing: The Finger jointing technique – uses, design aspects, adhesive aspect, machinery, structural and nonstructural usages, glulams, strength aspects, role of moisture and seasoning, finishing aspects, hands-on practice.

6. Wood seasoning: Importance of seasoning, Equilibrium moisture content; Moisture content values and tolerances for end products; Influence of climate 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.

7. Tree improvement for Sustainable Development: Introduction to the basics of genetics and tree improvement, Tree improvement methods for forestry tree species, Selection of the candidates and plus tree, Seed collection and its importance, progeny/ clonal trials, Seed orchards and hybridization, Field visit, Nursery of quality planting stock and their management, Tree improvement for industrial applications, Valedictory session..

8. Application of remote sensing , GIS and GPS in forest resource assessment: Remote Sensing (RS): Principles of remote sensing; Indian Remote Sensing Satellite 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, Source for free satellite data downloading, Hands on exercise for downloading of satellite data and its handling, Basic image handling procedures like layer stacking and mosaic king.

9. Techniques of Macro and Micro propagation in forestry: Fundamentals of vegetative propagation, Management of Mist chamber and clonal nursery, Micro propagation techniques, Management of tissue culture labs, Handling of tissue culture raised plants & Valedictory session.

10. Plywood manufacture: Plywood raw materials both wood and adhesive; Manufacture of veneer, plywood, black 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.

11. Forest Botany: Forest Biodiversity Overview, Dendrology, Plant classification and nomenclature, Use of forest flora for identification, Identification of species in field, collection of specimens, Herbarium's role and its Methodology, Digitization of Forest Flora, Rare and threatened species, field Visits including DD Herbarium, Botanical Garden, Arboretum, Bambusetum etc.

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. Bio-inoculants role and application in forestry: Isolation of bio-agents from soil. Identification of Rhizobium sp. From root nodule of legume/s, Isolation of Arbuscular Mycorrhizal (AM) fungi from rhizosphere, inoculation production and mass multiplication trials, Application of bio-fertilizers, Future Prospectus etc.

14. Butterfly Monitoring & Butterfly Inclusive Ecotourism as a Source of Livelihood: Importance of butterflies, Habits of butterflies, Diversity of butterflies in India, Identification of butterflies –Taxonomy & literature, Butterflies in National Forest Insect Collection, FRI, Dehradun, Monitoring & sampling butterflies for research, Butterflies & Climate change, Butterflies, forest types & land use planning, Butterfly inclusive ecotourism modals with livelihood opportunities & Creating butterfly nature trails and gardens.

Forest Research Institute, Dehradun Calendar of Short Term Training Courses - 2019

Name of the Course	Name of course Director & Division	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Insect pest management in forest nurseries, plantations and natural forests	Dr. Arun Pratap Singh, Scientist-F, Forest Protection Division Ph.No. 01352224356					13-17							
Nursery Disease and their Management	Dr. Amit Pandey, Head, Scientist-G, Forest Pathology Division. Ph. No. 0135-222-4226						10-14						
Bamboo propagation and clonal nursery management	Dr. Meena Bakshi, Scientist-E G.& T.P. Division Ph. NO.01352224410						08-12						
Wood and Bamboo Preservative and its Utilization Wood Seasoning	Dr. Sadhna Tripathi, Scientist-G Forest Products Division Ph. No. 0135-2224445								26-30				
Reducing wastage in dimensioned lumber through Finger Jointing	Dr. Sachin Gupta, ACTO Forest Products Division Ph. No. 0135-2224443										16-20		
Wood Seasoning	Dr. N.K. Upreti, Scientist-G, Forest Product Division Ph. No. 0135 222 4432										23-27		
Tree improvement for sustainable development	Dr. M.S. Bhandari, Scientist-C, G.& T.P. Division Ph. No. 0135222-4383										09-13		
Application of remote sensing and GIS and GPS in forest resource assessment	Dr. Manoj Kumar, Scientist-B Forest Informatics Division. Ph. No. 0135-2224370										02-06		
Techniques of macro and micro propagation in forestry	Dr. Santan Barthwal Scientist-E, G.& T.P. Division Ph. No. 0135-2224381										21-25		
Butterfly Monitoring & Butterfly Inclusive Ecotourism as a Source of Livelihood	Dr. Arun Pratap Singh, Scientist-F, Forest Protection Division Ph.No.01352224356										14-18		
Plywood Manufacture	Sh. D.P. Khali, Scientist-F, Forest Products Division Ph. No. 0135-2224451											04-08	
Forest Botany	Dr. Anup Chandra, Scientist-E, Botany Division, Ph.N. 0135-2224490											11-15	
Classification & Grading of Timber	Dr. S.D. Sharma, A.C.T.O., Forest Products Division Ph. No. 0135-2224345											18-22	
Bio-inoculants role and application in forestry:	Dr. Vipin Parkash Scientist-E, F. Protection Division. Ph. No. 0135-222-4314												16-21

Low-Cost Short Term Training Courses for Field Staff, Farmers, Artisans,

1

**Extraction,
quality assessment, value
addition and applications of
essential oils from aromatic plants.**

Course Director : Dr. Vineet Kumar, Head,
Chemistry Division
Ph. No : 0135-2224210
Dates : 14th to 16th October, 2019

COURSE CONTENTS

Overview of essential oils, Techniques for extraction of essential oils, physicochemical assessment of essential oils for quality control, GC-MS assisted analysis of chemical constituents, Value addition of essential oils & Industrial application of essential oils.

2

**कृषिवानिकी से
आजीविका सुधार**

Course Director : Dr. Charan Singh, Scientist-E,
Extension Division
Ph. No : 0135-222 4355
Dates : 09th to 11th October, 2019

COURSE CONTENTS

कृषिवानिकी एवं कृषि वानिकी पद्धतियों के प्रकार, मुख्य कृषिवानिकी प्रजातियां एवं उनका कृषिवानिकी में स्थापन, कृषिवानिकी उपज आकलन एवं बाजारीकरण व्यवस्था।

NOMINATIONS

Nomination letters for the courses to be conducted at F.R.I., Dehra Dun 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 : www.fri.icfre.gov.in

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.11,000 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. is Rs. 5,500 course.

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 Training Courses for Field Staff, Farmers, Artisan

Low Cost Short Term Trainings to be conducted at Centre for Social Forestry and Eco-Rehabilitation (CSFER), Prayagraj (UP)

1 Improved Nursery Techniques

Course Director : Dr. Anita Tomar

Ph. No : 6386193844

Dates : 19th to 21st November, 2019

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.

2 Reclamation of Degraded Lands

Course Director : Sh. Alok Yadav

Ph. No : 9411166881

Dates : 26th to 28th November, 2019

COURSE CONTENTS

Categories of wastelands, causes and effects of land degradation, methods of waste land reclamations, potential of tree species in reclamation of wasteland .

3 Marketing of Important Timber Species

Course Director : Dr. Anubha Srivastav

Ph. No : 9451180868

Dates : 3rd to 5th December, 2019

COURSE CONTENTS

Utilization and marketing of important timber species

Nomination letters for the above courses to be conducted at CSFER, Prayagraj may be addressed to the Director, Centre for Social Forestry and Eco-rehabilitation, Prayagraj

(Indian Council of Forestry Research & Education),

3/1 Lajpat Rai Road, New Katra,

Prayagraj – 21 1002 INDIA.

Phone : 91 – 0532 -2440795 (O),

FAX: 0532-2440795