

ICFRE NEWSLETTER



Indian Council of
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Azadi Ka Amrit Mahotsav



Training on Biodiversity and Climate Change



Training on Bamboo Shoot Processing and Value Addition



Awareness Programme on Environment Awareness among Village Folk



Webinar on Green Innovative Ideas on Environment Contest

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- Van Vigyan Kendra (VVK), Coimbatore of IFGTB in collaboration with VETRY (Voluntary Organization for people and for the Empowerment of Rural Areas by Youth), Tirupur had organized training & field demonstration programme on the theme "Windbreak Clones Based Agro Forestry Systems" on 14 August 2021. 40 farmers, volunteers of VETRY and officials of Agricultural department, Tirupur participated in the programme.
- IFGTB, Coimbatore organized a talk on "Evolution and basic structure of the Indian Constitution" on 18 August 2021. All the staff and research scholars attended the programme.
- TFRI, Jabalpur organised a webinar on "Biodiversity and Climate Change from 2 to 8 August 2021. 63 scientists and technical personnel attended the programme.
- RFRI, Jorhat organized long Skill Development Training on "Bamboo Shoot Processing and Value Addition" from 17 to 19 August 2021, sponsored by Bamboo Technical Support Group-ICFRE.
- HFRI, Shimla, organised a programme on 27 August 2021 under the theme 'Environment Awareness among Village Folk'. About 25 villagers from Rajhana Panchayat, Shimla, along with Panchayat Pradhan, Vice Pradhan and ward members attended the programme.
- IFP, Ranchi organized a seminar on "स्वतंत्रता प्राप्ति पश्चात वनोत्पाद द्वारा ग्रामीण जीविकोपार्जन में वानिकी की भूमिका" on 12 August 2021.
- IFB, Hyderabad conducted the Swachh Bharat Cleaning drive inside the IFB campus on 30 August 2021. An Oratorical competition was also conducted to IFB staff on 31 August 2021.
- FRC, Pryagraj organized a webinar on "Green Innovative Ideas on Environment Contest" on 19 August 2021 for school children from class X to class XII.

Significant Research Findings

Forest Research Institute, Dehradun

- Six kairomones based samples were tested for bioassay in both the sexes of Hoplo beetle with Olfactometer in the laboratory. Experiment on attractancy of adult to bait in mechanical trap was laid in the field, Timli forest range and data on Attractancy recorded. Work on rearing of insect and abundance of chemoreceptors on male and female antennae is in progress in the laboratory. Pestilence behavior of *Hoplocerambyx spinicornis*, destroyed the timber by feeding of larvae in Timli Forest Range under Kalsi Forest Division.
- A week long field sampling survey of moths was carried out in upper reaches of Shiwaliks in Sonanadi Wildlife Sanctuary (Pauri district); Tarai area of Pawalgarh Conservation Reserve and Nandhaur Wildlife Sanctuary (Nainital district), Uttarakhand. A moth screen with CFL lamp was used for sampling and collection of moths. Moths were sampled for hrs (7:30 pm to 10:30 pm) each day. 51 species of moths belonging to 8 families were recorded and 15 specimens preserved. Moths were identified with the help of keys, books and photographs. The moth database was updated with 127 species belonging 10 families.
- Nomenclature updates and description of 25 plant species for "Revision of Kanjilal's Forest Flora of the Chakrata, Dehradun and Saharanpur Forest Divisions, Uttar Pradesh and of 30 plant species for "Revision of Osmaston's Forest Flora for Kumaon were done
- The field tour conducted to Pilibhit Forest Division, Uttar Pradesh During the visit several FGR species documented and regeneration data were recorded for five FGR priority species.
- Morphological data of *Schizostachyum pergracile* from FRI Bambusetum and Botanical garden has been collected. Extraction of DNA was done from fresh leaves of *Bambusa bambos* for further process. Flowering data of different species have been collected from different sources.
- *Oroxylum indicum* incorporated in DD Herbarium. Plantation of 250 seedlings of *Oroxylum indicum* was carried out at FRI campus for the creation of germplasm conservatory of *O. indicum*.
- Analysis of annual rainfall data of Kemptly watershed revealed that there was a total annual rainfall of 2597 mm in 95 rainy days. The maximum rainfall (940 mm) was observed during the month of August, 2020 with maximum number (22) of rainy days per month. Monsoon accounted for maximum rainfall (1663 mm), which is 64 % of the annual rainfall. The total runoff generated was 770 mm (30%) of total rainfall which was either direct runoff 538 mm (21%) or base flow 233 mm (9%) during the year 2020. The maximum runoff (465.59 mm) was recorded during the monsoon season which was 60% of the total runoff whereas minimum runoff (135.31mm) was recorded during the summer season which was 18% of the total runoff. Base flow and direct runoff contribution in the stream discharge were 41% and 69% respectively during monsoon.
- Antioxidant activity of the essential oil isolated from *Cupressus torulosa* leaves using DPPH free radical assay was carried out and the oil was found to show the moderate free radical scavenging activity.
- Isolation & determination of essential oils from leaves of *Neolitsea pallens* from 3 locations of H.P., Fatty oils from seeds of *Mallotus nudiflorum* (from 10 locations in Assam), *Pithecellobium dulce* (from 1 location of Uttar Pradesh) and *Princepia utilis* (from 1 location of Himachal Pradesh) was carried out. Sequential extraction of the lyophilized and milled leaves of *Princepia utilis* collected from two locations using hexane, chloroform and 25% aqueous methanol for their chemical profiling was also done.
- Seed quality tests were conducted on seeds of forestry species collected from different forest types of Haryana under AICRPs and FGR National programme. Short to medium term storage protocols being developed for following species- *Cassia fistula*, *Cordia dicotoma*, *Ficus benghalensis*, *Lagerstromia parviflora*, *Mimusops elengi*, *Mitragyna parviflora*, *Putranjiva roxburghii*, *Schleichera oleosa*, *Terminalia arjuna*, *Terminalia bellirica*, etc.
- Antioxidant activity of the 25% aqueous methanolic extract isolated from the leaves of *Cupressus torulosa* using reducing power assay was examined and the extract was found to be antioxidant active.
- Locations of three *Terminalia* species namely *Terminalia arjuna*, *T. chebula* and *T. bellerica* and their marker compounds for chemical screening of the populations of these species were identified.
- Surveyed and collected germplasm of *Desmodium gangeticum* and *Diploknema butyracea* From Ramnagar, Nainital, Almora, Bageswar, Pithoragarh and Champawat Forest Division.
- Sukhi Dham(Champawat Forest Div.), Gurna(near pithoragarh), Satshiling, Kanalichinna, Daniya Munakot, Lakhu uddiyar, Koshi

kattarmal, Syanli Dwarahat, Farshali, were visited, collected morphological data of *Pyrus pashia* & *Ficus palmate* and laid out ten quadrates at each site.

- Growth parameters including height, No. of clumps and diameter of clumps of *Dendrocalamus strictus* and *Bambusa vulgaris* were recorded at experimental site of KVK, Kashipur.

Arid Forest Research Institute, Jodhpur

A field survey was conducted in Bikaner and Jaisalmer districts for GIS mapping and documentation of FGR species. A total 64 sites visited and 25 species including *Prosopis cineraria*, *Acacia segal*, *Cadaba fruticosa*, *Salvadora oleoides*, *Salvadora persica*, *Calligonum polygonoides*, *Acacia jacquemontii*, *Tamarix aphylla*, *Maytenus emarginata* *Ephedra foliata*, *Mimosa hamata*, *Clerodendrum phlomoides*, etc., were recorded. *Clerodendrum phlomoides* was found on the boundary of agricultural farms. *Dalbergia sissoo* was found planted in agricultural land. Out of 12 sites studied, *Commiphora wightii*, *Acacia jacquemontii* and *Salvadora oleoides* found regenerated at 3 sites.

Rain Forest Research Institute, Jorhat

Fungal inoculam for artificial inoculation of agarwood in *Aquilaria malaccensis* has been released for marketing in the brand name of "Sashi Inoculant". The product is available in two forms i.e. Liquid and Paste.

Institute of Forest Productivity, Ranchi

- One clonal Casuarina trial comprising eight clones was established in Chandwa, Latehar.
- *In vitro* shoot multiplication of *D. hamiltonii*, *D. strictus* and *B. polymorpha* obtained. Few cultures were also put in rooting culture. New germplasm bank of Bamboo has been established in Mandar, Ranchi.
- Collection, Conservation and Evaluation of *Melia dubia* germplasm from North Bengal, Odisha Hills and other parts of India was done for identification and release of superior clones.
- Melia based silvi-horticulture model developed at Kutam village, Torpa Khunti, in which Papaya, Moringa and *Flemingia semialata* have been planted in *Melia dubia* field. The Melia is planted at 15x6 feet distance and in between the horticultural crops have been planted.

Exhibition

Institute	Participated	Duration	Place
AFRI, Jodhpur	Alluring Rajasthan -2021	4-6 August 2021	Inder Residency, Udaipur

Workshops/Seminars/Meetings

S.No.	Topic	Duration	Beneficiaries
Forest Research Institute, Dehradun			
1.	Webinar on Genetics, Breeding and Biotechnological Application in Tree Improvement for Short Rotation Forestry	24 August 2021	Participants from across India
Institute of Wood Science and Technology, Bengaluru			
2.	Webinar on Prioritization of Forest Products Research, Training and HR Need Assessment	13 August 2021	Officials from various research institutes

Arid Forest Research Institute, Jodhpur

- | | | | |
|----|--|----------------|--|
| 3. | Webinar on Molecular Tools and Techniques for Identification of Microbes | 13 August 2021 | - |
| 4. | Meeting on Development of DPR for Aravalli Rehabilitation in hybrid mode (Offline+ Online) | 25 August 2021 | Scientists, academia of different institutes, and forest officials of Rajasthan and Gujarat Forest Departments |



Webinar on Molecular Tools and Techniques for Identification of Microbes



Meeting on Development of DPR for Aravalli Rehabilitation in hybrid

Himalayan Forest Research Institute, Shimla

- | | | | |
|----|---|----------------|--|
| 5. | Research Advisory Committee (RAC) meeting | 24 August 2021 | Scientists, Technical offices, Research Scholars |
|----|---|----------------|--|

Institute of Forest Biodiversity, Hyderabad

- | | | | |
|----|---|----------------|--------------------|
| 6. | Seminar on Balancing at survival's edge: Toxin-Antitoxin system in Bacteria and its implication for plant disease | 30 August 2021 | Officials from IFB |
|----|---|----------------|--------------------|

Training Programmes

S.No.	Topic	Duration	Beneficiaries
Forest Research Institute, Dehradun			
1.	Forest and Wildlife Conservation with Special Reference to Environment Impact Assessment & Environment Management Plans	9 to 12 August 2021	Executives of Central Mine Planning & Design Institute Limited (CMPDIL), Ranchi
2.	Managing green spaces for urban biodiversity and ecosystem services	23 to 27 August 2021	IFS officers from various state forest departments
Institute of Wood Science and Technology, Bengaluru			
3.	Practical steps for State Forest Departments for utilizing and developing forest genetic resources	2 to 6 August 2021	IFS officers
4.	Sandalwood Cultivation and its Prospects	26 to 27 August 2021	Officials from Animal Husbandry, Police, Revenue, Customs, Agriculture, Horticulture, Judiciary
Tropical Forest Research Institute, Jabalpur			
5.	Management of Sal heart wood borer (<i>Hoplocerambyx spinicornis</i>) in sal (<i>Shorea robusta</i>)	5,6,7,10 &11 August 2021	Front line staff of different Chhattisgarh State Forest Department
Institute of Forest Productivity, Ranchi			
6.	Cultivation, Management & Presentation of Medicinal Plants	24 August 2021	Forest Department Staffs of West Bengal
7.	Preparation and Utilization of Vermi-compost	25 August 2021	Forest Department Staffs of West Bengal

8. Seed ball technology for plants

26 August 2021

Forest Department Staffs of West Bengal



Training on Cultivation, Management & Presentation of Medicinal Plants



Training on Seed Ball Technology for Plants

Institute of Forest Biodiversity, Hyderabad

9. Seed Ball Technology

4 August 2021

Officials from Odisha Forest Department

Memorandum of Understanding

- MoU was signed between HFRI and Career Point University, Tikker-Kharwarian, tehsil Bhoranj, district Hamirpur, HP (India) on 24 August 2021 at HFRI. Purpose of MoU is to provide a framework for the proposed collaboration for pursuing quality research and building a new generation of highly skilled human resource; providing entirely new opportunities for employment and economic development, with main focus on environment, bio-resource, skill development, livelihood opportunities, science and technology, bio-technology, health and wellness lifestyle domain of Himachal Pradesh.
- MOU signed between State Forest Department, Jaisalmer and AFRI regarding land allotment under project AICRP-17 and 24: Enhancement of Fodder Availability and Quality to Reduce Unsustainable Grazing in the Forest. Combating desertification by enhancing vegetation cover and people livelihoods in degraded drylands and deserts of India (AICRP-24) at Jaisalmer on 12 August 2021.

Prakriti Programmes

- FRI, Dehradun organized webinar on "Biodiversity conservation" for Kendriya Vidyalaya and Navodaya Vidyalaya Teachers and Principals. under the programme "PRAKRITI". 335 participants including teachers and principals participated in the webinar.
- IFGTB, Coimbatore organized webinar as a part of "Online Knowledge Series- PRAKRITI- Nature Connect Programme" on 14th August 2021 on the topic "Beneficial Microbes", on 21st August 2021 on the theme "Variation in plant & trees" and on 28 August 2021 on the theme promotion of kitchen garden from waste. A total of 92 participants from CUBE organization, Singanallur, Coimbatore attended the programme.
- Under prakrati Programme on 5 August 2021, a meeting was held between AFRI, Jodhpur and Kendriya Vidyalaya No. 2 Udaipur. Extension Material of AFRI was provided to them for school library. Plantation techniques were also demonstrated to school staff.

Awareness and Demonstration Programmes

IWST, Bengaluru conducted technology demonstration program on "Agroforestry Models" on 10 August 2021 at Van Vigyan Kendra, Gottipura, Hoskote District, Karnataka.

Establishment of Bambusetum

Planting of 18 Bamboo species for establishment of Bambusetum at farm, ICAR-IISWC, Punchkula was done. Maintenance of established plantation of 11 Bamboo species has been continued at Seed farm, PAU Ladowal, Ludhiana.

Miscellaneous

Patents

IWST, Bengaluru has been granted a patent for an invention entitled Simple and Rapid Infra-Red (Ir) Spectrum based Detection Method for Discrimination of Pure Sandalwood and other Essential Oils for the term of 20 years from the 11 June 2018.

Popularizing Forestry through All India Radio/Doordarshan

Programme Topic	Channel	Date
Rain Forest Research Institute, Jorhat		
Bamboo Conservation and its Utilizations	All India Radio, Jorhat	27 August 2021
Adhunik Chintare Banh Silpa	All India Radio, Dibrugarh	30 August 2021

Institute

Special Day/theme

Duration

TFRI, Jabalpur; HFRI, Shimla and IFP, Ranchi

Parthenium Awareness Week

16 to 22 August 2021



Celebration of Parthenium Awareness Week by TFRI, Jabalpur



Celebration of Parthenium Awareness Week by IFP, Ranchi

HR News**Appointment (Deputation)****Name of Officer**

Shri Rajesh Kumar Dogra, IFS (TN:1991), DDG (Admin),
ICFRE, Dehradun

Date

16.08.2021

Repartriation**Name of Officer**

Shri. S. Senthil Kumar, IFS, (J&K: 2005), CF, IFGTB, Coimbatore

Date

19.08.2021

Patron:

Shri A.S. Rawat, IFS, Director General, ICFRE, Dehradun

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