



Indian Council of
Forestry Research
and Education

Vol. 18 No. 7
July 2018

ICFRE NEWSLETTER

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SIGNIFICANT RESEARCH FINDINGS:

Forest Research Institute, Dehradun

- Alpha cellulose was extracted from sugarcane bagasse using standard method followed by cationization. The cationization was performed in two stages:
 1. Alkalization of extracted alpha cellulose.
 2. Addition of cationizing agent.

Degree of Substitution (DS) 0.07 has been achieved so far and experiments are still going on to further increase the DS.

- Planted *Gmelina arborea* & *Embllica officinalis* in two experiment sites at Fatehpur Pelio (Saharanpur) and Dhaluwala majbata (Haridwar). Recorded initial data of *G.arborea* & *Embllica officinalis* in both the experiment sites and also collected soil samples of both sites. Under the project "*Gmelina arborea* and *Embllica officinalis* based agroforestry models on degraded lands in Uttarakhand and Uttar Pradesh".
- Kachnar, Bhimal and Kadam were planted in two experiment sites at Dhaluwala majbata (Haridwar). Kachnar, Bhimal and Kadam seedlings to farmers for planting on boundary of their fields under the project "Development of Kachnar (*Bauhinia variegata*), Bhimal (*Grewia optiva*) and Kadam (*Anthocephalus cadamba*) based agroforestry models on farmers land under rainfed conditions in Uttarakhand".
- The *in vitro* antifungal activity of fraction B-3 of *Berberis aristata* root extract against test fungi is underway under "*Berberis aristata*, NMPB Project".

- Survey was carried out Kalesar (Haryana), Haridwar, Kalsi, Rishikesh & Chakrata (Uttarakhand), Saharanpur (Uttar Pradesh). Nymphs of the tettigonids were observed in the field. Some of which were collected and reared. Adults of *Conocephalus maculates* (Anisoptera) in the sugarcane field were available under the project "Taxonomic study of Tettigoniidae (Orthoptera) of India (AICOPTAX, MoEFCC)".
- Plant and seed samples of karkat singi were collected from Saiyan, Uttar Pradesh. Plants were planted in pots. Seeds were caged for any pest emergence under the project "Cecidology and nursery establishment of *Pistacia integerrima* for exploring possibility of in situ leaf gall production.
- One tour was performed from various localities of different districts (Mahendragarh, Rewari, Charkhi dadri, Jhajjar and Panchkula) in Haryana. Forty seven insect samples were collected for the screening of *Apanteles* spp. Thirteen samples of larvae were collected from forestry trees *Pongamia pinnata*, *Dalbergia sissoo*, *Holoptelia* sp., *Acacia nilotica*, *Ficus religiosa*, *Casuarina* sp., *Eucalyptus* sp., *Alstonia scholaris*. Slide preparation and species identification of *Apanteles* spp. are in progress under the project "Studies on taxonomy and host range of larval parasitoids, *Apanteles* spp. (Hymenoptera: Braconidae) from Uttarakhand and Haryana".
- Fourteen samples of eggs were collected from five districts (Jhajjar, Rewari, Mahendargarh, Charkhi Dadri and Panchkula) of Haryana, from forestry trees *Pongamia pinnata*, *Dalbergia sissoo*, *Holoptelia* sp., *Acacia*

nilotica, *Ficus religiosa*, *Casuarina* sp., *Eucalyptus* sp., *Bauhinia variegata*, *Alstonia scholaris* and *Cassia fistula*. Detailed morphometric study of emerged parasitoid *Ufens jaipurensis* (Trichogrammatid) from eggs of *Oxyrachis tarandus* on Acacia tree has been carried out under the project “Studies on diversity and host range of hymenopteran egg parasitoids from northern India (Haryana, Uttar Pradesh and Uttarakhand)”.

- Biology and rearing of *Chlorophorus annularis* is continuing. Infested bamboo species were collected from the field, examined and caged in zinc, wooden, chimney and outdoor cages. Control experiment for the management of borer have been laid down using systemic and contact insecticides in the Insectary, FRI, under the project “Epidemiology and management of *C. annularis* Fab. (Coleoptera: Cerambycidae) –A major borer of cut and dry bamboo”.
- A 10 days survey was carried out on 15 transects in Ramnagar, Nainital, Almora, Pithoragarh, Champawat & Haldwani Forest Divisions in the Kumaon region of Uttarakhand for sampling butterflies and vegetation under seven forest sub-types: 3C/C2c Moist Terai Sal Forest, 9/C1b Upper Himalayan Chir Pine Forest, 9/C1/DS1 Himalayan Sub-tropical Forest, 9/C1a Lower Shiwalik Chir Pine Forest, 12/C1a Ban Oak Forest, 12/C1b Moru Oak Forest, 12/C1c Moist Deodar Forest. Besides collection of insect & plant material, forest sub-types maps (false colour composite satellite imagery) of the above mentioned areas was also prepared. Herbariums of identified plant species were prepared. Database on the forest sub-type and butterflies sampled so far was updated, 7 new species of butterflies sampled were added under the project “Butterflies associated with different forest types/sub-types in Uttarakhand”.
- A survey of oak forest areas in and around Chakrata Forest Division (Dehradun District.) was carried out on Ban, Moru & Kharsu oak forests during May 2018. Insect & infested material was collected on 2 species of wood borer, 4 species of Lepidoptera, 1 species of plant bug. Borer infested Kharsu oak logs collected from the field are being kept in the laboratory for rearing experiments on the life cycle of the borer. Database on insect pests of western Himalayan oaks was updated for 5 species of Coleoptera & 3 species of Lepidoptera under the project “Insect pests of Western Himalayan Oaks and their Control”.
- 727 species of beetles were digitized and about 1350 photographs of about 650 species were edited and stored. Database was updated for editing species. Work on eulophid species which made vein galls on the leaves of *Madhuca longifolia* continued under the project “Digitization and enrichment of National Forest Insect Collection (NFIC) of Forest Research Institute, Phase-II

(minute insects)”.

- Maintenance work of Poplar nursery was done. Observation of production loss has been done under the project “Screening of poplar clones for tolerance against poplar leaf defoliator, *Clostera cupreata* But”.
- Two wild populations (AP6 and AP7) of *Valeriana jatamansi* collected from Arunachal Pradesh were characterized for the first time for their essential oil composition determined in their rhizomes.
- Quaternisation of guar gum was carried out in semi-dry conditions and samples submitted to industry for their evaluation.

Institute of Forest Genetics and Tree Breeding, Coimbatore

- A bacterial strain isolated from the native populations of *Pterocarpus santalinus* at Seshachalam Forests, Tirupati was identified as *Rhizobium aegyptiacum* by 16sr RNA partial sequence analysis. This is a nitrogen fixing bacteria symbiotically associated with native populations of *P. santalinus*. The genome sequence of the bacteria was deposited in the NCBI, USA via accession No. Mh665677.

Himalayan Forest Research Institute, Shimla

- Two species of larval parasitoids viz., *Apanteles glomeratus* and *Apanteles ruficrus* of *Thysanoplusia orichalcea* (Fab.) (Lepidoptera: Noctuidae) were reported and the extent of parasitisation was recorded varying from 20-32.5 per cent in May to June. This indicated that these parasitoids can be used as biological control for management of this pest in *Saussurea costus* – potential temperate medicinal plants in Lahaul Valley of Himachal Pradesh.

VISIT OF DIGNITARIES:

- Shri Kamakhya Prasad Tasa, Hon'ble Member of Parliament (MP), Jorhat (Assam) visited RFRI on 2 July 2018.
- Sri Krishnadhan Das, Hon'ble Member of Legislative Assembly (MLA) of Bamutia constituency (Tripura) visited FRC-LE, Agartala on 27 July 2018.



Sri Krishnadhan Das, Hon'ble MLA, visited FRC-LE, Agartala

PUBLICATIONS:

- A booklet entitled “A Glimpse into some of the Recent Technologies” was brought out in one-day seminar on Wood Processing Technologies: Research-Industry Interface organized on 18 July 2018 at FRI, Dehradun.
- A brochure on 'Bamboo Nursery in Rashtrapati Bhavan' has been published by National Bamboo Mission with Technical support of FRI, Dehradun. The brochure contains information regarding 23 Bamboo species planted in Rashtrapati Bhavan Gardens with their botanical and vernacular names, distribution and uses.

DEMONSTRATION PROGRAMMES:

- RFRI, Jorhat organized demonstration programme on bamboo cultivation, propagation, nursery management, value addition & bamboo preservation techniques, biotechnology and tissue culture, lac cultivation and vermicomposting on 25 July 2018.
- Dissertation on Forestry Research & Extension activities viz., Bambusetum, Nursery, Medicinal Plants, Mangrove areas as well as Soil Laboratory and Molecular Biology Laboratory of IFP, Ranchi on 18 July 2018.

WORKSHOPS/ SEMINARS/ MEETINGS:

Sl. No.	Topic	Duration	Beneficiaries
Indian Council of Forestry Research and Education, Dehradun			
1.	Review meeting	2,13 and 30 July 2018	ICFRE personnel
2.	Ecosystem Services Improvements Project (ESIP)	12 July 2018	-
Forest Research Institute, Dehradun			
3.	Wood Processing Technologies: Research-Industry Interface	18 July 2018	80 participants from various Industries



Participants of Wood Processing Technologies: Research-Industry Interface

Rain Forest Research Institute, Jorhat			
4.	Weed diversity and climate change: invasiveness and management	5 July 2018	-

Institute of Forest Genetic and Tree Breeding, Coimbatore

5.	Gall Inducing Arthropods on Forest Trees	17 July 2018	45 delegates from different parts of the country
6.	Productivity Enhancement through Tree Breeding: Current Status and Future Challenges	26 July 2018	Stakeholders of Industries, Research Institution, Universities, Farmers and Nursery growers



Workshop on Gall Inducing Arthropods on Forest Trees at IFGTB



Seminar on Productivity Enhancement through Tree Breeding: Current Status and Future Challenges at IFGTB

Forest Research Centre for Livelihood Extension (FRC-LE), Agartala

7.	Opportunities and Challenges in Voluntary Certification Process for Recognition of Traditional Healers in Tripura	17 July 2018	-
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TRAINING PROGRAMMES:

Sl. No.	Topic	Duration	Beneficiaries
Institute of Forest Genetic and Tree Breeding, Coimbatore			
1.	Capacity building on the development of Tree rich biobooster to Irular tribes in forest fringe villages of Coimbatore, Tamilnadu: An alternate source of livelihood support	13 July 2018	17 WSHG members from Senkuttai , Anaikatty
Arid Forest Research Institute, Jodhpur			
2.	अकाष्ठ वनोपज एवं औषधीय पादपों पर परिक्षण कार्यक्रम	23 July – 8 August 2018	20 Selected unskilled persons/ students under Green Skill Development Programme

Rain Forest Research Institute, Jorhat

3. Artificial induction of Agarwood 6 July 2018 20 farmers at Ampati, South Garo Hills



Training on Artificial induction of Agarwood at Ampati, South Garo Hills, Meghalaya

Himalayan Forest Research Institute, Shimla

4. वैज्ञानिक विधि द्वारा चिलगोजा के शंकुओ का तुड़ान 6 and 7 July 2018 Panchayat Pradhans, members and villagers of Lippla & Jhungli village, Kinnaur (H.P.)

Institute of Forest Productivity, Ranchi

5. Capacity Development for Forest Management and Training of Personnel 23 July to 3 August 2018 Personnel of ICFRE's Institutes

MISCELLANEOUS:

Institute	Special Day/ theme	Duration
RFRI, Jorhat	Van Mahotsava	2 July 2018
FRI, Dehradun		17 July 2018
HFRI, Shimla		20 July 2018
AFRI, Jodhpur		27 July 2018



Celebration of Van Mahotsava at FRI, Dehradun



Celebration of Van Mahotsava at RFRI, Jorhat



Celebration of Van Mahotsava at HFRI, Shimla

VAN MAHOTSAV RASHTRAPATI BHAVAN:

- On the occasion of Van Mahotsav, Hon'ble President of India Shri Ram Nath Kovind planted Bamboo sapling in the nursery of Rashtrapati Bhavan Gardens, New Delhi on 16 July 2018. The Director FRI, Dr Savita, IFS was also present on the occasion. The Bamboo nursery has been developed by Technical Support of Forest Research Institute and National Bamboo Mission, New Delhi.



On the occasion of Van Mahotsav, Hon'ble President of India Shri Ram Nath Kovind delighted to plant a Bamboo sapling in the Rashtrapati Bhavan Gardens.

POPULARIZING FORESTRY THROUGH ALL INDIA RADIO/ DOORDARSHAN:

Programme Topic	Channel	Date
Forest Research Institute, Dehradun		
Why Agroforestry is important?	All India Radio, Dehradun	1 July 2018
Cultivation of Medicinal & Aromatic plants	DD Kisan Channel, New Delhi	24 July 2018
Arid Forest Research Institute, Jodhpur		
<i>Paryavaran Santulan Mein Aam Aadmi ki Bhumika</i>	All India Radio, Jodhpur	26 July 2018
Rain Forest Research Institute, Jorhat		
<i>Paramporagata Krishi Bonanikaranor Pora Hobopora Swabolombita</i>	All India Radio, Jorhat Station, Jorhat	27 July 2018
Forest Research Centre for Livelihood Extension (FRC-LE), Agartala		
Concept of Plantation Festival and ways of celebration	Times 24 News channel	1 July 2018
Role of Plantation Festival in support of doubling Farmers Income	local news channel Headlines Tripura	4 July 2018

INFORMATION TECHNOLOGY INITIATIVES

IFB, Hyderabad website was developed and implemented on live server. URL of the website is <http://ifb.icfre.gov.in>.

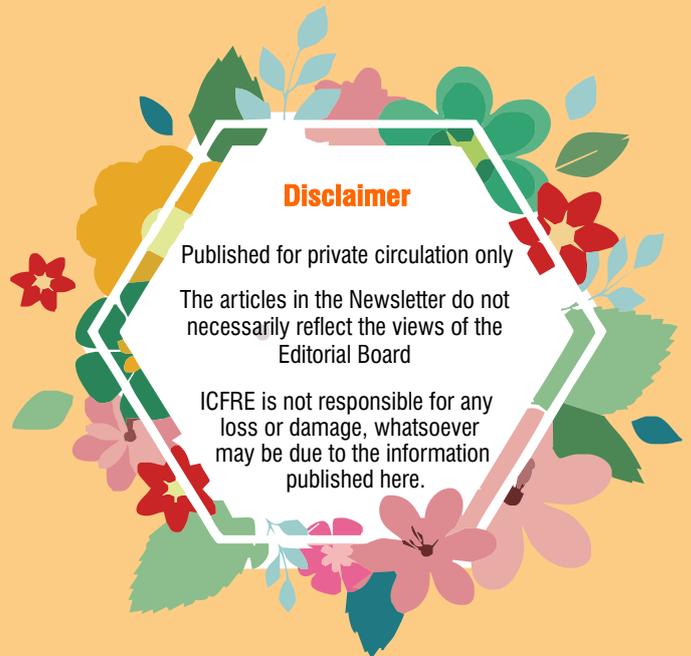
HR NEWS:

Promotions

Name of Officer	Dated
Shri Dhirendra Kumar, SAO, ICFRE	03 July 2018
Smt. B.J. Kanthimathi, Under Secretary, IWST, Bangalore	24 July 2018

Retirement

Name of Officer	Dated
Dr. S.P. Chaukiyal, Sci- E, FRI, Dehradun	31 July 2018
Dr. Ombir Singh, Sci- E, FRI, Dehradun	31 July 2018
Shri V.K. Ahuja, Section Officer, FRI, Dehradun	31 July 2018
Shri D.K. Sharma, Private Secretary, ICFRE	31 July 2018
Shri Raj Kumar Pathak, Sr. Technical Officer, TFRI, Jabalpur	31 July 2018



Patron:

Dr. Suresh Gairola, Director General

Editorial Board:

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Indian Council of Forestry Research and Education

(An Autonomous Body of Ministry of Environment, Forest & Climate Change, Govt. of India)
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NOTICE

The last date of submission of Applications for “ICFRE Awards for Excellence in Forestry” has been extended upto 15-10-2018. Please refer Indian Council of Forestry Research and Education website (www.icfre.org) for further details.