





**VOL-5&6** 

### September –December 2022

#### From the Director's Desk

#### GREETING FROM TFRI FAMILY,



I take pride in sharing the fifth and sixth issue (September – December, 2022) of TFRI Newsletter, showcasing, significant research activities, events organized, participated and publications made during the period.

I hope this newsletter will be helpful for researchers, different stakeholders, and policy makers concerned with forestry research.

Neelu Singh Director, TFRI Jabalpur

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### Major Events

#### NATIONAL WORKSHOP

A one-day National Workshop on "Availability, Sustainability, Processing Issues and Market Linkages of Medicinal Plants" was organized by Tropical Forest Research Institute, Jabalpur on 26<sup>th</sup> September, 2022.

On this occasion, Two publications of TFRI entitled — 1) ICFRE contributions in the development of Medicinal Plant Sector, and 2) Non-Timber Forest Products: Opportunities and Challenges were released. A portable "Vanya Hat" was inaugurated by Shri Abhay Patil, Shri A.S. Rawat along with other dignitaries present with an aim to promote NTFP's based products developed by ICFRE institutes under All India Coordinated Projects (AICRPs) and other projects. For selling herbal products, a brand name — 'EPPKO - An initiative towards nature' ('एपको-एक पहल प्रकृति की ओर') was conceptualized and launched during the workshop which will be promoted through all mediums of communication and extension including digital platforms.







#### 31ST RAG MEETING

To evaluate new research projects for ICFRE funding, 31<sup>st</sup> Research Advisory Group meeting was held at Tropical Forest Research Institute, Jabalpur on 12<sup>th</sup> October, 2022 through hybrid mode.

The meeting commenced with welcome address by Dr. G. Rajeshwar Rao, ARS, Director, TFRI, Jabalpur (MP). Smt. Neelu Singh, Group Co-Ordinator (Research) presented an overview of R&D activities of TFRI being carried out under projects funded by various funding agencies including NABARD, National Bamboo Mission, NTPC, CAMPA- Chhattisgarh, CAMPA Madhya Pradesh, SFD- Maharashtra and USAID etc. Dr. Sumit Chakrabarti, Assistant Director General, (Research and Planning) expressed his views of TFRI on R&D. Seven new projects were presented by Scientists of TFRI.

Dr. S. K. Dhayani, Country Coordinator ICRAF, New Delhi; Dr. Uttam Subbudhi, Addl PCCF and CEO, State Bamboo Mission, Bhopal; Dr. Shrinivas Reddy, IFS, APCCF, Maharashtra; Dr. S Ravichandran, Professor, NAARM, Hyderabad; Rajesh Kallaje, CCF, Chhattisgarh; Dr.C.Kunnikanan, Director, IFGTB, Coimbtore (TN); Sanjiv Karpe, Founder and Industrialist, KONBAC(MS); Dr. Deshmukh, Professor, PDKV, Akola; Shri Rajesh Ranga, Progressive farmer, Heads and Scientists of the divisions of Institute attended the meeting.







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### Establishment of New Van Vigyan Kendra - launched at FRCSD, Chhindwara

Different works for the establishment of new Van Vigyan Kendra at Chhindwara have been initiated under CAMPA extension fund.





Construction of polyhouse for model nursery under new VVK at Chhindwara

### Launch event of the Trees Outside Forest of India program

### **Activities under USAID TOFI Project**

A national Launch event of the Trees Outside Forest of India program, funded by ICRAF-USAID was inaugurated on 8<sup>th</sup> September, 2022 at Ganga Hall, Indira Paryavaran Bhawan, New Delhi. Tropical Forest Research Institute was honored to be a part of this august consortium. Dr. Nanita Berry, Scientist 'F' participated and presented TFRI's role and activities under TOFI project during the discussion held with TOFI partners.

TFRI has participated in the Assam State Launch of Trees Outside Forests in India (TOFI) Program held on October 18, 2022, at Guwahati, Assam, with an aim to expand forested area with trees outside forest under agroforestry in seven states. TFRI is the co-leader for the program's implementation in Assam state with CIFOR-ICRAF. Dr. Nanita Berry, Scientist-F and Shri Rathod Digivijaysinh Umed singh, Scientist-B from TFRI led the TOFI Technical Workshop: Policy Environment and Investment Landscape with other consortium partners to identify expansion opportunities and mapping of TOFI.



Ms. Leena Nandan, Secretary, Ministry of Forest, Environment & Climate Change, New Delhi, addressing the house during the National launch at Indira Gandhi Paryavaran Bhawan, New Delhi.



TFRI with other TOFI consortium partners led the TOFI Technical Workshop







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#### Scientist's Corner

Established Demo bamboo plantation in an area of 10 hectares in farmers field at Jabalpur, Katni, and Damoh districts and KVK, Satna district of Madhya Pradesh under **BTSG-ICFRE scheme of NBM** 



Bamboo plantation for demonstration at Konikala village, Jabalpur, MP.



A view of plantation at farmers field at Damoh., MP.

Dr. Nanita Berry, Scientist-F

#### Ex-situ conservation of Stereospermum suaveolens (Roxb.) DC. - A threatened species of Dashmool group

Stereospermum suaveolens (Roxb.) DC. (Syn. S. chelonoides (L.f.) DC.) is among the ten plant species used in "Dashmoolarishta". Highly fragmented populations of S. suaveolens has been reported in Madhya Pradesh and is rapidly declining from its natural pockets. Demarcated 100 trees in MP state, established the germplasm bank of S. suaveolens with 110 plants of 10 accessions and standardized the nursery technique.





Dr. Hari Om Saxena, Scientist-E

#### **Establishment of Species Trial of Bamboo**

Bamboos play a major role in the livelihood of rural people and rural industry. This green gold is cheap and plentiful to meet the vast needs of human populace from the 'child's cradle to the dead man's bier'. Candidate Plus Clumps (CPCs) of four different bamboo species viz., *Bambusa balcooa*, *Bambusa tulda*, *Bambusa vulgaris* and *Bambusa nutans* were planted by Genetics and Tree Improvement Division. Four genotypes of each species were planted in RBD experimental design under All India Coordinated Research Project on Bamboo.



Species trial of four different bamboo species at TFRI, Jabalpur

Dr. Fatima Shirin, Scientist-G







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#### Establishment of VMG for Genetic Improvement of Madhuca longifolia

Vegetative Multiplication Garden of superior trees of *Madhuca longifolia* (Mahua) has been established during September to October 2022 at TFRI, Jabalpur campus to evaluate its growth performance for future tree improvement activities under All India Coordinated Research project on Mahua. Clonal plants of 34 CPTS of Madhya Pradesh, Chhattisgarh and Maharashtra were prepared through cleft grafting and planted.

#### Growth performance of Gmelina arborea in progeny trial

A progeny trial of *Gmelina arborea* (Khamer) with seedlings of 28 half-sib families has been established in TFRI, Jabalpur. Morphometric data on growth parameters viz. tree height (in cm), collar girth at base (in cm), number of branches and GBH (in meter) has been recorded at six months interval. After one year, maximum height (4.56) m and maximum collar girth (26.5 cm) was recorded for IFGTBA-8 clone, maximum number of branches (19) was observed in IFGTBA-10 clone and maximum GBH 18 cm in IFGTB-6 clone.







#### **Conservation of Forest Genetic Resources**

For *ex-situ* conservation of prioritized species of forest genetics resources, collection of germplasm and establishment of field gene bank for morphological characterization are being carried out at Genetics and Tree Improvement Division, TFRI, Jabalpur. During the month of October and November 2022, fruits of *Litsea glutinosa* (Maida) from selected seed sources of 6 populations of Chhattisgarh and 2 populations of Madhya Pradesh, *Bridelia retusa* (Kasai) from 8 populations of Chhattisgarh and 3 populations of Madhya Pradesh and leaf samples of *Dillenia pentagyna* from 2 populations of Chhattisgarh for molecular characterisation were collected for further studies.



Collection of fruits of Bridelia retusa





Collection of fruits of Listea glutinosa







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## Assessment of water requirement of different forest tree species

Assessment of water requirement of different forest tree species and its impact on subsoil moisture has been undertaken, under CAMPA-funded project titled "Assessment of water requirements of different forest tree species and it's impact on subsoil moisture". Field instrumentation has been completed on four forest tree species, teak, sal, dhavada, and saja, at TFRI campus in Jabalpur, Kanha National Park, and Mawai (M.P.). This study will help the forest department to select suitable plantation species based on their water requirements.





Installation of Sap flow instrument in Tectona grandis trees

Sh. Dheeraj Gupta, Scientist-D

## **Climate Driven Effects on Indian Forests**

A 10-ha permanent plot in Kanha National Park, Madhya Pradesh has been established to study the Climate Driven Effects on Indian Forests through Long term monitoring.





Marking of trees in permanent plot, enumeration of invasive species and installation of litter traps in 10 ha plot

Dr. Avinash Jain, Scientist-F

### Management of Forest Fire

30 burned and unburned sites of forests in Madhya Pradesh and Maharashtra have been surveyed to collect samples for estimating the loss of biomass and thereby carbon in 5 pools and biodiversity due to forest fire under CAMPA-funded project titled "Forest Fire Research and Knowledge Management".



Sh. Dheeraj Gupta, Scientist -D





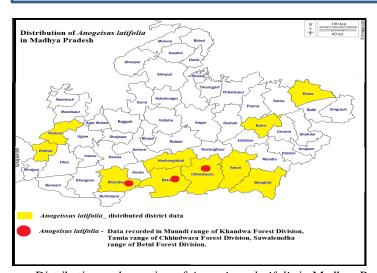


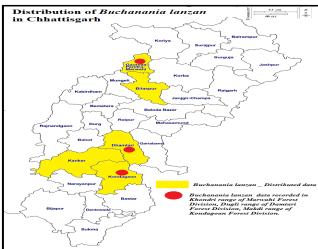
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### **Survey of Forest Genetic Resources**

TFRI has conducted extensive survey in Chhattisgarh, Maharashtra and Madhya pradesh and collected Geo-morphic data and prepared map for 30 species distributed in central India under Forest Genetic Resources (FGR) project. On the basis of criteria of flower yield 400 phenotypically superior trees of *Anogeissus latifolia* were selected from 20 different locations of Chhattisgarh, Madhya Pradesh and Maharashtra.





Distribution and mapping of *Anogeissus latifolia* in Madhya Pradesh and Buchanania lanzon in Madhya Pradesh and Chhattisgarh

Dr. Fatima Shirin, Scientist-G, Dr. Nanita Berry, Scientist-F and Shri Manish Kumar Vijay, Scientist-B

#### Rehabilitation of Degraded Lands: A Model Plantation Program

A model plantation program has been carried out in 22.68 ha of ravines in order to arrest further degradation and to enhance vegetation cover. Two sites were selected for carrying out plantation of seven tree species in Chambal ravines of Morena. One site was selected in State Forest Department's land and another was selected in the land provided by Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya (RVSKVV), Gwalior. Acacia catechu (Khair), Acacia tortilis (Tortilis), Azadirachta indica (Neem), Anogeissus pendula (Kardhai) and Commiphora wightii (Guggal), Aegle marmelos (Bael) and Emblica officinalis (Aonla) have been planted.



Plantation site (Chambal ravines) selected in the land provided by Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya (RVSKVV), Gwalior at Esah near Morena



Aerial photograph of the plantation site (Chambal ravines) selected in Beat Useth of Morena Forest Division; Geo-coordinates: 26°51'38.33"N; 78°21'09.29"E







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## Visit of Dignitaries

#### Hon. Director General, ICFRE visited Tropical Forest Research Institute Jabalpur on 25-09-2022







## Exposure Visits of stakeholders

A group of 69 IFS Probationers, 2021-23 batch visited TFRI.





Forest Guard Officer Trainees of Forest Ranger Institute, Balaghat; Telangana Academy Dulapally, Hyderabad; Chandrapur Forest Academy of Chandrapur (Maharashtra) and Gujarat Forest Academy visited TFRI













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### Exposure visits of students from different schools and colleges









FRCSD, Chhindwara conducted "Bird Watching Campaign" on 02 October 2022 for school children and teachers





## **Memorandum of Understanding**

TFRI, Jabalpur signed a Memorandum of Understanding with St. Aloysius Institute of Technology college Jabalpur (M.P.) on 24 November 2022.





#### Radio Talks delivered

- Dr. Nanita Berry, Scientist F and Head, Forest Extension division delivered a talk on "बांस आधारित कृषिवानिकी पध्दिति द्वारा आय उत्पादन" on 21st October, 2022 at AIR, Jabalpur (MP).
- > Manish Kumar Vijay Sci-B delivered a talk on "वृक्षा रोपण और वन विकास के लिए बीज भण्डारण तकनीक" on 17<sup>th</sup> Nov 2022 at AIR, Jabalpur (MP).







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### Collaborative Online training program with MANAGE, Hyderabad

Training program on "Non-Wood Forest Produce and Livelihood Opportunities"

A three days collaborative online training program with MANAGE, Hyderabad was organized from 21<sup>st</sup>-23<sup>rd</sup> September, 2022 by Tropical Forest Research Institute, Jabalpur for Officers, Scientists and Research Scholars of various organizations like SAUs, KVKs, FPOs and NGOs of Solan, Banda, Guntur, Bihar, Andhra Pradesh, Telangana, Madhya Pradesh, Himachal Pradesh, Uttar Pradesh states.





Training program on "Conservation of medicinal plants through agroforestry system for income generation"

Dr. Nanita Berry, Scientist 'F' delivered lecture on 'Conservation of medicinal plants through agroforestry system for income generation' during MANAGE-TFRI collaborative online training program on Non-Wood Forest Produce and Livelihood Opportunities. Other lectures by different scientist have been omitted.



#### Training program organized by FRC-SD Chhindwara

FRC-SD Chhindwara organized training program on "Good Field Collection practices of NTFPs/Sustainable harvesting Methods of NTFPs for SFDs, VDVKs JFMCs/ Van Samiti Members" on 28-12-2022

Nursery Techniques of important forestry species by FRC-SD Chhindwara. 29-12-2022 for SFDs, Seoni











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#### Training Program On 'Agroforestry, Seed Technology And Biofertilizers'

Under CAMPA extension scheme, Tropical Forest Research Institute, Jabalpur organized one day training program on 'Agroforestry, Seed technology and Biofertilizer' on 14<sup>th</sup> September, 2022 at Van Vigyan Kendra, Jagdalpur (Chhattisgarh) for field staff of Jagdalpur forest division.







Four days training program on Bamboo Handicrafts was organized from 30 August to 02 September 2022





Dr. Nanita Berry, Scientist-F

## **HRD Training Programmes**

- ❖ Mr. M. Rajkumar, Sci-D, Mr. Dheeraj Gupta, Sci-D, Mr. Ajin Sekhar, Sci-B and K.S. Sengar, STO attended training programme on "Carbon Flux Measurement Through Eddy Covariance Towers" at ICFRE, Dehradun.
- ❖ Dr. S.N. Mishra, Sci- C, Dr. Jangam Deepika, Sci- B and Dr. Darshan K., Sci- B attended training on "Statistical Methods in Forestry Research" for ICFRE Scientists during 14-18 Nov., 2022 conducted by Division of Statistics, ICFRE, Dehradun.
- ❖ Dr. Jangam Deepika, Sci-B and Mr. Manish K Vijay, Sci-B attended one-day training workshop on "Harnessing Intellectual Properties: From Innovation to Economic Growth" for ICFRE Scientists on 30 September, 2022 conducted by IFGTB, Coimbatore







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### Events Organized under Azadi Ka Amrit Mahostav (AKAM)



An event on 'Women Empowerment' has been Celebrated on 3<sup>rd</sup> November 2022.





Cleanliness campagion was conducted at FRC-SD Chhindwara on 30 November, 2022





Live demonstration of NTFP processing programme was organized for students of Herbal division from Guru Ramdas Khalsa college of and 60 students of Pharmacy from Shri Ram College and Technology, Jabalpur respectively on 13 & 16 December 2022

Silviculture Forest Management and Agroforestry Division conducted a demonstration cum management programme at experimental plot and Farmers field at Vasan Village on 12 & 16 December 2022 under NABARD project.









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FRC - SD, Chhindwara organized a training programnme on "Biodiversity conservation" and "Medicinal plants" on 03, 09 & 10<sup>th</sup> November 2022





### AKAM Activities organized by FE & CC division

"Awareness on the global initiative of Lifestyle for the Environment (LiFE) Movement" for the students of Kendriya Vidyalaya (KV), TFRI held on December 09, 2022 "





FE&CC Division conducted "Best out of waste competition for environmental amelioration among women and project fellows" on 11 Nov., 2022 with the theme "Empowerment of women and children" under Azadi Ka Amrit Mahostav.

"Healthy Soils: The foundation of healthy food and better environment" on December 05, 2022





"Creating awareness on recognition of natural resources linked to rural livelihoods in Chambal ravines" on December 05, 2022







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## Events organised

#### National Unity Day (Rashtriya Ekta Divas ) Celebration

Commemorating birth anniversary of Shri Sardar Vallabhbhai Patel, all scientists, officers and staff members of the institute pledged together to maintain strength and unity of the country and to fight against corruption.





Hindi day was celebrated at TFRI, Jabalpur on 14-09-2022



### Fit India Run campagin

Third installment of "Fit India Run" campaign was celebrated at TFRI, Jabalpur on 21st October, 2022





## Vigilance Awareness Week

TFRI, Jabalpur initiated Vigilance Awareness Week from 31 October 2022 to 6 November 2022 with undertaking Integrity Pledge on 31st October 2022. Shri Ajay Kumar, SP, CBI, Jabalpur delivered talk on 'Corruption free India for a developed nation'.



## Constitution Day celebrations





Constitution Day was celebrated at Tropical Forest Research Institute, Jabalpur on 26<sup>th</sup> November 2022

Organized 'tree plantation program' on the occasion of 147<sup>th</sup> Birsa Munda Jayanti at Rani Durgavati Samdhi, Narai Village, Jabalpur on 15<sup>th</sup> November, 2022.









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#### **Awards**

**Dr. Hari Om Saxena** has been awarded **Best paper presentation award** under the Theme – Documentation, Validation, and standardization of Herbal formulations in the National Seminar on "Securing Human Health through use of Medicinal Plants" held on 03-04, September, 2022 organized by Minor Forest Produce Processing and Research Center (MFP-PARC) sponsored by MP State Minor Forest Produce (T&D) Cooperative Federation Limited, Bhopal (M.P.).



**Dr. Mohan C.** Scientist 'B' has been conferred "Best Article Award" for article entitled "Occurrence of Mealybug infestation in Ber (*Ziziphus mauritana*) and their management", published in Agriculture & Food e Newsletter, Volume 04 - issue 09.



**Dr. Vishakha Kumbhare**, Smruti Shukla and Revanth V. have been awarded **Best poster presentation** in National Seminar on "Securing Human Health through the use of Medicinal Plants" organized by MFP-PARC, Bhopal.



**Dr. Hari Om Saxena**, Scientist-E, Ms. Samiksha Parihar, JPF and Shri Ganesh Pawar, Sr. Technician of SFM & AF Division received **Dr. P.D. Sethi National Memorial Annual National Award - 2021** ( $2^{nd}$  Prize) on 25 November, 2022 for **best research paper** entitled "Simultaneous determination of betulinic acid, β-sitosterol and lupeol in fruits, leaves, root and stem bark of *Dillenia pentagyna* Roxb. by a validated high-performance thin-layer chromatography method".









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Shri Rathod Digivijaysingh Umed Singh Scientist-"B", Smt Neelu Singh Scientist-"G", Shri Ajin Sekhar Scientist-"B" and Shri Shourabh Dubey STA, received Best poster presentation award for "Local adaptations and seed production rate of *Lantana camara* in the tropical forest area" at the Third International Weed Conference (IWC) held at Anand, Gujarat during 20-23 December, 2022.



Shri Manish Kumar Vijay Scientist-"B" received 'Best Oral Presentation Award' at the 1st "National Conference on Plant Genetic Resources Management" held at National Agriculture Science Centre (NASC), Pusa Campus, New Delhi



Shri. Ajin Sekhar, Scientist-"B" has been conferred "Young Scientist Award 2021" for Forestry, Environment and Sustainable development by the Society for Science of Climate Change and Sustainable Environment (SSCE), New Delhi on the occasion of Brainstorming Session on Green Technologies for Restoration of Degraded Terrestrial Ecosystem, held at Central Agroforestry Research Institute (ICAR-CAFRI), Jhansi- Uttar Pradesh on 10.12.2022



## Recognition for promoting the progressive use of the Hindi language

Tropical Forest Research Institute (TFRI), Jabalpur has been awarded the **third prize** for the year 2021 during 11<sup>th</sup> Bi-annual meeting of Town Official Language Implementation Committee (TOLIC) held at Rai Saurabh colony, Jabalpur on 16-12-2022.









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### **Obituary**

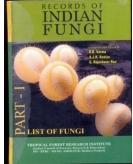


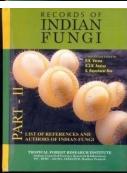
1.7.1959 to 4.1.2023

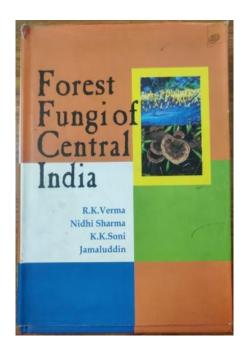
Dr. R.K. Verma who served as Scientist "G"& Head, Forest Protection Division at Tropical Forest Research Institute, Jabalpur was born on 01.07.1959 at village Umariya, district Basti (UP). He completed his higher education and PhD from Gorakhpur University, Gorakhpur and joined FRI, Dehradun as Pool Officer in 1989 and later on joined TFRI, Jabalpur as Scientist on 11.04.1991.

He had successfully completed several research projects on forest pathology, biofertilizers and taxonomy of fungi. He was a member

of many academic societies and was awarded FPSI by Indian Phytopathological Society. He had published 249 research papers in Indian and Foreign Journals and written 10 book chapters and 12 chapters in the proceedings of symposium, seminar, etc. He has also written two books entitled 'FOREST FUNGI OF CENTRAL INDIA' and 'ATLAS OF WOOD DECAYING FUNGI OF CENTRAL INDIA. He had published 6 new genera and 88 new species of fungi from India. Dr. R.K. Verma received Prof. K.S. THIND MEDAL from Association for Plant Taxonomy (APT) for the year 2010, for his significant contributions in the field of mycology. His name has also appeared in 9<sup>th</sup> edition of Marquis 'Who's-Who in science & engineering 2006-2007.















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#### New Publications

- Banerjee, S.K., Banerjee, S. and Shukla, P.K.. (2022). Sustainable development through Joint Forest Management with special reference to eco-restoration of degraded soils in lateritic region and their carbon sequestration potential. *Journal of Tropical Forestry*, 38 (1 & 2): 60-77
- Rao G. Rajeshwar, Shirin, F., Kumar, P., Mohammed, N. and Mohan, C. (2022). A brief research profile on Genetic improvement of *Tectona grandis*, *Wood is Good*, 3 (1): 95-98
- Singh, J., Aggarwal, R., Bashyal, B.M., Darshan, K., Meena, B.R., Yadav, J., Aditya, S. and Hussain, Z. (2022). Physiological and Growth Responses of Tomato Plants to Different Delivery Methods of Biocontrol Agent Chaetomium globosum, Journal of community mobilization and sustainable development, 17(2): 420-428
- Saxena, H.O., Das, A. and Parihar, S. (2022). Dilleniapentagyna Roxb.: A Review on Phytochemistry and Pharmacology. The Journal of Phytopharmacology, 11(4): 295-299.
- Berry, N., Kumar, P., Shukla, A. and Barkade, E. (2022). Variation in seed germination behavior of *Santalum album* based on pre sowing treatment enhancer, *The Pharma Innovation Journal*, 11(11): 1461-1465.
- Singh, J., Aggarwal, R., Bashyal, B.M., Darshan, K., Parmar, P., Saharan, M.S., Hussain, Z. and Solanke, A.U. (2021). Transcriptome Reprogramming of Tomato Orchestrate the Hormone Signaling Network of Systemic Resistance Induced by *Chaetomium globosum*. Frontiers in plant science, 12:721193.
- Mohan C., Sowmya, P., Dubey, S. and Chakravarty, G. (2022). Botanical Pesticides: An innovative and Ecofriendly approach for insect pest management. *Indian Journal of Tropical Biodiversity*, 30 (1&2): 20-23.
- ➤ Harshita Agrahari, Devshree Gupta, Raj Singh Yadav, Yogesh Pardhi and Nikhil Verma. 2022. *Aegle marmelos* (Bael) A tree with immense medicinal value. *Indian Journal of Tropical Biodiversity*. 30 (1&2): 31-35.
- Fatima Shirin, Priyadarshani Chhetri, Hariom Barmaiya, Niraj Yadav, Sharmishtha Gangopadhyay, Mukesh Kumar Sonkar and Shushma Maravi. 2022. Evaluating the effect of genotypes and IBA concentration on vegetative propagation of *Gmelina arborea* through semi hardwood cuttings. *Indian Journal of Tropical Biodiversity*, 30 (1&2): 59-66.
- Saudagar, I. A, and Shirin, F. (2022). Genotyping and Phenotyping through next-generation sequencing for next- generation breeding in plants and crops, *Frontier on Recent Developments in Plant Science and Plant Biotechnology. SCIENCE PUBLICATION, Tamilnadu, Edited Book, Volume-1, Chapter 117-125*







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Plant Species and number Available for Sale at Genetics and Tree Improvement Division, TFRI, Jabalpur

Improved Varieties- Cost per plant- Rs. 50/ plant

S. No.	Species	Number of Plants
1.	Rauvolfia serpentina TFRI RS-1 (Sarpagandha)	200
2.	Rauvolfia serpentina TFRI RS-2 (Sarpagandha)	150

#### Bamboos Species- Rs. 25/plant

S. No.	Species	Number of Plants
1.	Bambusa bambos (Katang bans)	1350
2.	Bambusa vulgaris (var. green)	110
3.	Bambusa nutans	75
4.	Dendrocalamus strictus (Lathi bans)	940
5.	Dendrocalamus longispathus	100

#### Tree Species and Medicinal Plants- Rs. 25/ plant

S. No.	Species	Number of Plants
1.	Tectona grandis (Teak, Sagoan)	200
2.	Dalbergia latifolia (Kala shisham, Rosewood)	200
3.	Celastrus paniculatus (Malkagini, Jyotishmati)	100
4.	Plumbago zeylanica (Chitrak)	100
5.	Oroxylum indicum (Shivnag)	50
6.	Tamarindus indica (Imli)	150
7.	Azadirachta indica (Neem)	50





### Guest House facilities and Charges

S.No.	Category of Person		Rent per day while on Govt. Duty (Rs.)		Rent per day while not on Govt. Duty (Rs.)	
		Room	Suit	Room	Suit	
1	A) Officials of ICFRE and institutes     B) Consultants and research Fellow at ICFRE and its institutes and FRI Deemed Universities     C) Officials and experts of MoEF&CC, New Delhi     D) Officials of SFDs     Ex- employees of ICFRE and Ex-Deputationist	150	200	200	200	
2	Family members of present /ex a) ICFRE Employees b) ICFRE Deputationist			200	300	
3	Officials of Autonomous bodies, Universities under the FRI Deemed University     Officials of Central/State Government other than SFDs	200	300	400	500	
4	Others			800	750	

Maintenance charges in addition to above rent will be applicable as follows

Accommodation type	Maintenance charge including A/C /Heater Charges
Room	200
Suit	250









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#### Patron and Editor

#### **Neelu Singh**

Director- Incharge and Group Co-Ordinator Research, Scientist -G TFRI, Jabalpur

#### Associate Editors

#### Dr. Jangam Deepika

Scientist -B, FECC Division, TFRI, Jabalpur

#### Shri. Ajin Sekhar

Scientist -B, FECC Division, TFRI, Jabalpur

#### Shri. Rathod Digvijaysinh Umedsinh

Scientist -B, SFM & Agroforestry Division, TFRI, Jabalpur

### **Technical support**

Shri. H.L. Asati

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#### **ABOUT THE INSTITUTE**

Tropical Forest Research Institute ,Jabalpur (Madhya Pradesh ) came into existence in April 1988,to provide strong research support to sustainable development of forest and forestry sectors in central India comprising the states of Madhya Pradesh, Chhattisgarh and Maharashtra.

It is one of the nine Regional institutes under the Indian Council of Forestry Research & Education , Dehradun (Uttarakhand ) .

Forest Research Centre for Skill Development ,Chhindwara , came into existence on 30th March 1995.It was declared on 3<sup>rd</sup> January 1996,a satellite Centre of Tropical Forest Research Institute, Jabalpur.



#### CORE RESEARCH AREAS

- ❖ Eco-restoration of Vindhyan, Satpura and Maikal hills and Western Ghats, Rehabilitation of mined areas.
- Development and Demonstration of Agroforestry Models
- Forest Protection
- Biofertilizers and Biopesticides
- ❖ Non-Wood Forest Products
- ❖ Biodiversity Assessment, Conservation and Development
- Sustainable Forest Management
- Planting Stock Improvement
- Climate Change & Environment Amelioration
- Forest Products Development