



## Agroforestry News

## कृषिवानिकी समाचार

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### Celebration of 35<sup>th</sup> Foundation Day of ICAR-CAFRI

The Central Agroforestry Research Institute (CAFRI) celebrated its 35<sup>th</sup> Foundation Day on 8<sup>th</sup> May 2022. Hon'ble, DDG (NRM), ICAR Dr. S.K. Chaudhari was the Chief Guest of the function. The program covered large-scale plantations in the Spiritual Vatika, laying the foundation for Sale Counter and unveiling Star-Tree plantation, Rashi Vatika, and Solar Plantation. The Chief Guest also inaugurated the Centre for Capacity Building of SC Communities, Agroforestry Business Incubation Centre, and Exhibition Hall. Dr. A. Arunachalam, Director, ICAR-CAFRI conducted the program with felicitation of dignitaries and detailed achievements of the institute in the last year. The newly designed Institute staff's ID card was unveiled, also released few video documentaries. Dr. Neelam Patel, Senior Advisor (Agriculture), NITI AYOJ, GOI and Prof. Dr. Arvind Kumar, Vice Chancellor, RLBCAU, Jhansi were the Guest of Honor during the function.





Glimpses of 35<sup>th</sup> Foundation Day Celebration at CAFRI

## Strategic Highlights

- ICAR-CAFRI signed a MoU with Gandhi Institute of Technology and Management, Visakhapatnam, Andhra Pradesh on 3<sup>rd</sup> January, 2022 to engage jointly in the field of ecosystem services based on sustainable livelihood promotion, in east coast of Andhra Pradesh.
- Dr. Trilochan Mohapatra, Hon'ble DG, ICAR & Secretary, DARE addressed the Review meeting with Officers and Staff of ICAR headquarters, Institutes of ICAR, ASRB and DARE through video conferencing on 4<sup>th</sup> January, 2022.
- ICAR-CAFRI developed a QR code to visit the website and Scan the QR code to download the farm app providing a user-friendly, e-platform to have basic information on 25 promising Agroforestry tree species.
- Dr. A Arunachalam Director ICAR-CAFRI delivered a public lecture on "Broadening collaboration for improving employment opportunities to forestry graduates" on 8<sup>th</sup> January 2022, in the National Seminar on Forestry for Development" organized by Kerala Agricultural University.



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- Dr. A Arunachalam, Director, CAFRI inaugurated the “Two-week Hi-End Workshop in Remote Sensing and Digital Image Processing” (10-23 January 2022) organized by RLBCAU, Jhansi. A total of 30 students participated in the workshop.
- Mera Gaon Mera Gaurav (MGMG) visit was conducted on 11<sup>th</sup> January 2022 at Chhatpur Bichhauni villages of Parasai Sindh cluster, Jhansi district (U.P). Seedling of different multipurpose tree species (MPTs) was distributed to the villagers.
- DG, UPCAR, Dr. Sanjay Singh, and ADG Dr. V. K. Tiwari visited ICAR-CAFRI on 13<sup>th</sup> January 2022 and interacted with all the employees of CAFRI and explored research collaboration.
- Dr. A. Arunachalam, Director, ICAR-CAFRI, Jhansi addressed the Senior Forest Officers in a Training Workshop on the Role of Forestry in Sustainable Development of People on 3<sup>rd</sup> February 2022. The training was attended by PCCFs/CCFs of 16 States of the Country.
- Dr. A. Arunachalam, Director ICAR-CAFRI has delivered an online public Lecture in International Multidisciplinary Webinar on Climate Change Impacts on Agriculture, Environment, and Sustainable Development on the 11<sup>th</sup> of February 2022.
- Dr. A. Arunachalam, Director CAFRI addressed the National Webinar on “Nurturing Neem for Nature and Livelihood Security” organized by RLBCAU, Jhansi on 2<sup>nd</sup> March 2022.
- Dr. A. Arunachalam, Director, CAFRI addressed the participants of the Short Course on “Recent Developments in Agroforestry Dimensions for Managing Salt Affected Ecologies” on 3<sup>rd</sup> March 2022 organized by ICAR-CSSRI, Karnal.
- ICAR-CAFRI signed a MoU with Rani Lakshmi Bai Central Agricultural University, Jhansi, Uttar Pradesh on 9<sup>th</sup> March 2022 for promoting agriculture education.
- ICAR-CAFRI signed a MoU with Gautam Buddha University, Greater Noida on 10<sup>th</sup> March 2022 to strengthen Teaching, Research, and Extension in Agroforestry & Allied Disciplines.
- Dr. K. K. Singh, Member ASRB, Dr. Arvind Kumar Hon’ble VC RLBCAU Jhansi, Director IGFR I & Director CAFRI visited institute exhibition stall in IGFR I Kisan Mela on 16<sup>th</sup> March 2022.



MoU Between Gautam Buddha University  
& ICAR-Central Agroforestry Research Institute  
10<sup>th</sup> March, 2022



- Dr. A. Arunachalam, Director CAFRI inaugurated the 5<sup>th</sup> Workshop of the Consortium of Industrial Agroforestry at FCRI, TNAU, Mettupalayam in Tamil Nadu. He also visited Agroforestry Business Incubation facilities and reviewed the AICRP Agroforestry work in the Centre on 21<sup>st</sup> March 2022.



- Dr. G. R. Chintala (Chairman NABARD), Dr. S. K. Dora (CGM NABARD Lucknow) and Dr. Prabhu Datta Saho (GM NABARD Lucknow) visited CAFRI-implemented strawberry project sites and planted sandal seedlings in the campus on 27<sup>th</sup> March 2022.
- ICAR-CAFRI signed a MoU with Bundelkhand University, Jhansi on 24<sup>th</sup> April 2022 for the promotion of agricultural education and research.
- ICAR-CAFRI signed a MoU with the Institute for Integrated Resource Management, North Lakhimpur, Assam on 8<sup>th</sup> May 2022 to engage in a broad spectrum of joint activities in the field of Natural Resource-based Sustainable Livelihood Promotion in India.
- ICAR-CAFRI signed a MoU with Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, Tamil Nadu on 10<sup>th</sup> May 2022 to engage in a broad spectrum of joint activities in the field of Natural Resource-based Sustainable Livelihood Promotion, in the Central part of India.
- ICAR-CAFRI signed a MoU with Lakkarwala Private Limited, Yamunanagar, Haryana on 28<sup>th</sup> May 2022 to engage in a broad spectrum of joint activities in the field of Natural resource based sustainable livelihood promotion in India through digital interventions.
- 34<sup>th</sup> IRC meeting of CAFRI was conducted on 25 June, 2022.



## Strategic Outreach

- As a part of the India@75 Campaign – Azadi ka Amrut Mahotsav, CAFRI, Jhansi organized a program on “Clean Milk; Better Health and Price” on 7<sup>th</sup> January 2022. At this event, all the staff of CAFRI visited the Dairy and Animal unit of ICAR-IGFRI, Jhansi. The special lecture on “Clean Milk: Better Health and Price” was delivered by Dr. K.K. Singh, Head, PAR Division, IGFRI, Jhansi.





- ICAR-CAFRI organized a Training Program on “Agroforestry Extension for Rural Youth of Jhansi district, Uttar Pradesh” on 28-30 January 2022.

- ICAR-CAFRI, Jhansi, and NABARD, Lucknow jointly organized a training program on Strawberry cultivation for crop diversification and better income in Bundelkhand Region and “Bundeli Strawberry & Organic Agri-Produce Festival-cum-Exhibition from 9<sup>th</sup> to 11<sup>th</sup> February 2022. In this training program. 35 farmers from Babina and Moth blocks participated.



- ICAR-CAFRI, Jhansi in collaboration with Uttar Pradesh Forest Department and Krishi Vigyan Kendra, Saharanpur organized a three days training programme on Agroforestry Extension for Rural Youth of Saharnpur district, Uttar Pradesh during 3-5 March 2022.

- ICAR-CAFRI, Jhansi, and the Indian Society of Agroforestry, Jhansi jointly organized a training-cum-exposure visit on agroforestry and NRM activities for the ICRAF-Odisha key stakeholders on 23-26 February 2022. 22 farmers, Krishi Vaniki Mitra, and project staff participated and on 4-7 March 2022, 23 farmers and stakeholders participated.



- ICAR-CAFRI, Jhansi & TNAU-Forest College and Research Institute, Coimbatore jointly organized an online training program on “Application of Biochar and Nano Fertilizers for Quality Planting Stock” (8-13 March 2022). The training attended by 20 scientists from ICFRE institutions across the country.



- ICAR-CAFRI organized a Hands-on training program on “Training on Plant Biotechnology Techniques” from 10<sup>th</sup> to 12<sup>th</sup> March 2022.

- ICAR-CAFRI organized a circle-level Training Workshop for making a quality proposal of non-forest land under section-4, section-20, and section-29 of the Indian Forest Act-1927 on 18<sup>th</sup> May 2022. Around 60 Forest Range Officers attended the workshop.

- ICAR-CAFRI organized three days Training program on Ber Pruning at Village-Raunija, Block-Badagaon, District-Jhansi from 1<sup>st</sup> to 3<sup>rd</sup> June 2022.



- One day exposure visit of farmers to ICAR-CAFRI farm was organized to illustrate to them different Agroforestry systems and *Ber* Based Agroforestry systems on 2<sup>nd</sup> June 2022.
- ICAR-CAFRI, Jhansi jointly with Indian Society of Agroforestry, Jhansi, NABARD Hamirpur, and NGO i.e. “Srijan Society” (Self Reliant Initiatives through Joint Action), Kanpur organized an Agroforestry based training program for farmers of Hamirpur, Uttar Pradesh on 16-18 June 2022. 25 farmers participated. ICAR-CAFRI is implementing SCSP schemes with the main objective to improve the socio-economic conditions of the SC community. Under this scheme, during the last six months, CAFRI organized nine SC-SP programs in different villages for capacity-building initiatives for beneficiaries and distributed agricultural inputs.



- On the 35<sup>th</sup> foundation day of ICAR-CAFRI, Agroforestry Business Incubation Centre (ABiC) was inaugurated by Dr. S.K. Chaudhari, Hon'ble DDG (NRM), Dr. Arvind Kumar, Vice Chancellor, RLBCAU, Dr. Neelam Patel, Sr. Adviser, NITI Aayog, Dr. Amaresh Chandra, Director, ICAR-IGFRI, Jhansi. Also, CAFRI organized a workshop on ABiC on 27<sup>th</sup> April 2022 to promote plant nursery for farmers and rural youth in which 21 participants attended the program. Dr. Vinay Kumar Yadav, Deputy Director, Horticulture, Government of Uttar Pradesh was the Chief Guest of the program.
- On the eve of National Technology Day at ICAR-CAFRI, Jhansi, a Documentary Film on Bundeli Strawberry was released in the presence of Sh. Rabindra Kumar, District Magistrate, Jhansi. Sh. Shailesh Kumar, CDO-Jhansi was the Guest of Honour. Dr. A. Arunachalam, Director, ICAR-CAFRI presided over the program with the felicitation of dignitaries. The program was conducted in hybrid mode attending Sh. SK Dora, GM NABARD; Sh. Raymond D'souza, DGM, NABARD; Mr. Bhupesh Pal, DDM, NABARD; scientists from outside; CAFRI scientist; technical; research associates; students and progressive farmers.





## Days and Weeks Observed

- ICAR-CAFRI celebrated India's 73<sup>rd</sup> Republic Day on the 26<sup>th</sup> January, 2022.
- World Wetland Day on 02.02.2022 with the theme "Wetlands Action for People and Nature"
- World Pulses and Oilseeds Day on 10.02.2022
- Women Cell and IJSC Meeting on 17.02.2022
- National Science Day on 28.02.2022 with the theme "Integrated approach in science and technology for a sustainable future"
- International Women's Day on 08.03.2022 with theme 'Gender equality for a sustainable tomorrow'
- World Water Day and International Day of Forest on 22.03.2022
- International Labour Day on 01.05.2022
- National Technology Day on 10.05.2022
- International Day for Biological Diversity on 21.05.2022
- Hindi Workshop on 25.05.2022
- World Environment Day on 04.06.2022
- International Yoga Day on 21.06.2022



## Events Organized

- ICAR-CAFRI organized an event on the distribution of Ayu-Raksha Kits (Immuno booster against COVID-19) to all the employees of ICAR-CAFRI, Jhansi on 27<sup>th</sup> January 2022 by the Central Ayurveda Research Institute, Jhansi.
- ICAR-CAFRI organized a public Lecture on strawberry farmers of the Bundelkhand Region on 11<sup>th</sup> February 2022. (Speaker: Dr. Surya Narayan Bhaskar, ADG (AA&C), ICAR Headquarters, New Delhi.
- Organized the virtual Annual Group Meeting of the All India Coordinated Research Project on Agroforestry from 24<sup>th</sup> to 25<sup>th</sup> February, 2022.



- ICAR-CAFRI organized the Vichar Manch program on 19<sup>th</sup> April 2022. (Chief speakers of the program were Dr. V. V. Sadamate, Former Adviser, Planning Commission, GOI, and Dr. Krishna Wankhede, Former CEO, IFFDC (IFFCO).
- ICAR-CAFRI organized a program on oilseed and pulses under Aatmanirbhar Bharat Abhiyan on 27<sup>th</sup> April 2022. Dr. Sanjeev Gupta, ADG (Oilseeds & Pulses), ICAR, was the chief guest of the function.
- ICAR-CAFRI Jhansi, RLBCAU, Jhansi; NESI, New Delhi; BU, Jhansi, ICAR-IGFRI, Jhansi, and ISAF jointly organized an "International Conference on Agriculture Science and Technology: Challenges and Prospects (AST-2022)" from 6-8<sup>th</sup> May 2022.
- ICAR-CAFRI Jhansi organized one day quarterly Hindi Workshop on 25<sup>th</sup> May, 2022.
- ICAR-CAFRI Jhansi celebrated the Silver Jubilee Foundation Day of the Indian Society of Agroforestry on 18 June 2022. Dr. K.P. Dubey, IFS (PCCF, Govt. of UP) was the Chief Guest as well Dr. Shyam Viswanath, Director, KFRI, Peechi, and Dr. Amaresh Chandra, Director, IGFRI were the Guest of Honour.
- ICAR-CAFRI Jhansi organized a one-day *Kisan Gosthi cum Farmers' Awareness Campaign* on "Efficient and Balanced Use of Fertilizers (including Nano-Fertilizers)" at Village- Shivrampur, District- Niwari (M.P.) on June 21, 2022. Total of 45 farmers participated in this program.



## Participation in Training/Workshop/Meetings/Symposia

- Dr. A. K. Handa participated as Panelist in a civil society dialogue on forestry, land management and biodiversity in India on 13<sup>th</sup> January, 2022 in virtual mode organized by iForest.
- Dr. A. K. Handa delivered a lecture on Coastal Agroforestry systems in India: An ecosystem services perspective in an ICAR sponsored short course entitled "Ecosystem service analysis in diversified coconut and arecanut gardens organized by ICAR-CCARI, Goa on 22<sup>nd</sup> February, 2022.
- Dr. A. K. Handa delivered a lecture in ICAR-sponsored short course on 'Recent Developments in Agroforestry Dimensions for Managing Salt Affected Ecologies' organized by ICAR-CSSRI, Karnal on 23<sup>rd</sup> February, 2022.



- Dr. Sovan Debnath attended the National Webinar on 'Managing Agro-chemicals for Crop and Environmental Health' organized by Society for Fertilizers and Environment, Kolkata on 25<sup>th</sup> February 2022.
- Dr. Sovan Debnath participated in short training course on 'Recent Development in Agroforestry Dimensions for Managing Salt Affected Ecologies' held at ICAR-Central Soil Salinity Research Institute, Karnal during 22<sup>nd</sup> February to 3<sup>rd</sup> March 2022.
- Dr. K. Rajarajan participated in National Webinar on MPTS Neem entitled "Nurturing the Neem for Nature and Livelihood Security" on 2-3 March, 2022.
- Dr. Ashok Yadav attended in the workshop on Restoration of degraded lands in Sub-Saharan Ecosystems organized by Center for International Forestry Research (CIFOR), Nairobi on 9<sup>th</sup> March, 2022.
- Dr. Ashok Yadav attended in the National Workshop on "Hydroponic Cultivation" under NAHEP-IG ICAR, New Delhi organized by the College of Horticulture and Forestry, Jhalawar, Rajasthan in Virtual Mode from 28<sup>th</sup> to 29<sup>th</sup>, March, 2022.
- Dr. K. Rajarajan participated in the training on RFID and RTS tags dashboard organized by ICRAF during 5<sup>th</sup> April 2022.
- Dr. A. K. Handa participated in Sub-Working Group Meeting of NITI Ayog on Resource Estimation, Quality Planting Material and Technologies for Enhancing Bamboo Propagation and Management in April, 2022.
- Dr. Sovan Debnath participated in International Conference on 'Agricultural Science and Technology-2022' held at Rani Lakshmi Bai Central Agricultural University, Jhansi during 06-08<sup>th</sup> May 2022.
- Dr. Badre Alam participated and oral presented in the International Conference on Agriculture Science and Technology: Challenges and Prospects (AST-2022) held during 6-8<sup>th</sup> May, 2022 at RLBCAU, Jhansi on "Responses in photosystem protection and cellular antioxidant defense system in *Pongamia pinnata* (L.) Pierre".
- Dr. Sushil Kumar participated in the International Conference on Agriculture Science and Technology: Challenges and Prospects (AST-2022) held during 6-8 May, 2022 at RLBCAU, Jhansi.
- Dr. Ashok Yadav participated in the International Conference on Agriculture Science and Technology: Challenges and Prospects (AST-2022) held during 6-8<sup>th</sup> May, 2022 at RLBCAU, Jhansi and presented the oral presentation on "Survey, Collection, Characterization and Nutraceutical Profiling of Manilla Tamarind Accessions under Semi-arid Conditions of Jhansi district of Uttar Pradesh". He also presented the two poster on "Impact of Strawberry Cultivation on the Socio- Economic Status of Farmers: A Case Study of Babina Block of Jhansi district in Uttar Pradesh" and Impact of Strawberry Cultivation on the Socio- Economic Status of Farmers: A Case Study of Moth Block of Jhansi district in Uttar Pradesh.
- Dr. A. K. Handa delivered a key note lecture during National Symposium on Horticulture for Sustainable Development, Nutritional & Livelihood Security on Agroforestry for sustainability and carbon neutrality on 26<sup>th</sup> May, 2022 organized by, NHEP, UBKV, Cooch Behar, West Bengal.
- Dr. K. Rajarajan participated the event organized in the SERB sponsored online workshop on "Plant Tissue Culture: Nature in Room" during 2-4 June, 2022.
- Dr. A. K. Handa participated and of the panelist in Technical Session in XXVII Biennial Workshop of All India Coordinated Research Project for Dryland Agriculture, IX Annual Review Workshop of NICRA-AICRPDA and X Annual Review Workshop of NICRA-AICRPAM organized by ICAR- CRIDA during 2-4<sup>th</sup> June, 2022
- Dr. A. K. Handa participated and delivered key note lecture on advances in Agroforestry Research and Development in online seminar on Agroforestry for Wood production conducted by FRI, Dehradun on 10<sup>th</sup> June, 2022.

## Publications

### Journal Articles

- Handa, A.K., Sirohi, C., Arunachalam, A., Ramanan, S.S., Rajarajan, K., Krishna, A. and R.H. Kolse (2022) Surge in neem tea mosquito bud incidence in India. *Current Science* 122(6): 651.
- Anuragi, H., Singhal, R.K., Tanveer, Y., Yasmin, H., Srijan, A., Bharati, A., Chand, L., Taria, S., Rajarajan, K., Ram, A., Handa, A.K. and A. Arunachalam (2022). The Primacy of *Moringa (Moringa oleifera Lam.)* in boosting nutrition status and immunity defense amidst the COVID-19 catastrophe: A perspective. *Phyton*. 91(9):1831-1858.
- Bharati, A., Anuragi, H., Rajarajan, K., Handa, A.K. and A. Arunachalam (2022). Soil Microbial Metagenomics in Agroforestry System: Tools and Techniques. *Molecular Genetics and Genomics Tools in Biodiversity Conservation*. Springer, Singapore.
- Chaturvedi, M. and B. Alam (2022). Evaluation of critical limit of low light intensity through photosynthetic and photosystem-II mechanisms in blackgram (*Vigna mungo L.*). *International Journal of Agriculture Sciences*. 14(3):11211-11216.
- Chauhan, J., Srivastava, J.P., Singhal, R.K., Soufan, W., Dadarwal, B.K., Mishra, U.N., Anuragi, H., Rahman, M.A., Sakran, M.I., Brestic, M. and Zivcak, M., 2022. Alterations of Oxidative Stress Indicators, Antioxidant Enzymes, Soluble Sugars, and Amino Acids in Mustard [*Brassica juncea*(L.) Czern and Coss.]. Response to Varying Sowing Time, and Field Temperature. *Frontiers in Plant Science*, 13: 875009.
- Chavan, S. B., Dhillon, R. S., Rizvi, R. H., Sirohi, C., Handa, A. K., Bharadwaj, K. K., Johar, V., Kumar, T., Singh, P., Daneva, V. and Kumari, S. (2022). Estimating biomass production and carbon sequestration of poplar-based agroforestry systems in India. *Environment, Development and Sustainability*.
- Debnath, S., Saha, S., Mandal, B., Sarkar, D., Chattopadhyay, A., Mukherjee, D., Batabyal, K., Murmu, S., Nath, R., Mishra, D.K., Sinha, K. (2022). Zinc and iron profiling in some commonly consumed food crops uncovers inter- and intra-crop variation. *Journal of Soil Science and Plant Nutrition* 22: 1768–1777.
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- Javed, T., Indu, I., Singhal, R. K., Shabbir, R., Shah, A. N., Kumar, P., Jinger, D., Dharmappa, P.M., Shad, M. A., Saha, D., Anuragi, H., Adamski, R. and Siuta, D. (2022). Recent Advances in Agronomic and Physio-Molecular Approaches for Improving Nitrogen Use Efficiency in Crop Plants. *Frontiers in Plant Science*, 13:877544.
- Kumar, S., Verma, S. K., Yadav, A., Taria, S., Alam, B. and T.R. Banjara (2022). Tillage based crop establishment methods and zinc application enhances productivity, grain quality, profitability and energetics of direct-seeded rice in potentially zinc-deficient soil in the subtropical conditions of India. *Communications in Soil Science and Plant Analysis*.
- Mishra, S. S., Kumar, N., Chavan, S. B., Ram, A., Inder Dev, Shukla, A., R. Vishnu, Lavania, P. and S. Parveen (2022) Studies on Integrated Nutrient Management in *Swietenia macrophylla* King. Under nursery conditions. *Environment and Ecology* 40 (2B): 702—707.
- Rajarajan, K., Taria, S., Chavan, S. B., Ramanan, S. S., Vishnu, R., Handa, A. K., and B. Alam. (2022). Differential activities of antioxidant enzymes and physio-chemical changes in *Dalbergia sissoo* genotypes under waterlogged stress. *Range Management and Agroforestry* 42(2):255-261.
- Rajarajan, K., Vishnu, R., Priyadarshini, E., Arunachalam, P., Ramanan, S.S. (2022). Phylogenetics in the Context of Tree Diversity and Conservation. *Molecular Genetics and Genomics Tools in Biodiversity Conservation*. Springer, Singapore.



- Sirohi, C., Dhillon, R. S., Chavan, S. B., Handa, A. K., Balyan, P., Bhardwaj, K. K., Sushil K and Ahlawat, K. S. (2022). Development of poplar-based alley crop system for fodder production and soil improvements in semi-arid tropics. *Agroforestry Systems*, 96: 731-745.
- Sirohi, Chhavi, Bangarwa, K.S., Dhillon, R.S., Chavan, S.B. and Handa, A.K. (2022). Productivity of wheat (*Triticum aestivum* L.) and soil fertility with poplar (*Populus deltoides*) agroforestry system in semi-arid ecosystem of Haryana. *Current Science*, 122 (9): 1072-1080.
- Taria, S., Alam, B., Rane, J., Kumar, M., Babar, R. and N.P. Singh (2022). Deciphering endurance capacity of mango tree (*Mangifera indica* L.) to desiccation stress using modern physiological tools. *Scientia Horticulturae*. 303: 111247.

### **Books/Book Chapters and Technical Bulletins**

- Anuragi, H., Kumar, S., Taria, S., Yadav, A., Singhal, R.K., Srijan, A., Rajarajan, K., Handa, A.K., Arunachalam, A. (2022). Non-edible tree based oilseeds as sustainable source of biodiesel and bioenergy production. In Kumar, P. (Ed.) *Smart technologies in sustainable agriculture -current and future prospects*, AAP, CRC Press, a Taylor & Francis Group, USA. (Accepted).
- Anuragi, H., Srijan, A., Taria, S., Singhal R.K., Rajarajan, K., Handa, A.K. and A. Arunachalam (2022) Molecular approaches in conservation and restoration of agro-biodiversity. In Kumar, P., Bhat, J. A., Tomar, R. S., Dobryiyal, M., Rani, M. (Ed.) *Agro-biodiversity and Agri-ecosystem Management*, Springer Nature, Switzerland AG. (Accepted).
- Bharati, A., Anuragi, H., Rajarajan, K., Handa, A. K., and Arunachalam, A. (2022). Soil Microbial Met genomics in Agroforestry System: Tools and Techniques. In Kumar, A., Choudhury, B., Dayanandan, S. and Khan, M. L. (Ed.) *Molecular Genetics and Genomics Tools in Biodiversity Conservation*, (pp: 171-184), Springer Nature Singapore PteLtd.
- Ghosh, P.K., Dixit, A.K., Ram, A., Rai, A.K., Palsaniya, D.R., Kumar, S. 2022. Sustainable Agriculture. In: Kumar, S., Tripathi, A.K., Palsaniya, D.R. and Ghosh. P.K. (eds.), *A Textbook on Recent Advances in Agronomy*. Kalyani Publishers, New Delhi. Pp 14.1-14.13. ISBN: 978-93-5540-072-7.
- Ram, A., Dogra, A., Inder Dev, Kumar, N., Gautam, K., Londhe, S., Handa, A. K., Singh, R., Arunachalam, A. And S. K. Dhyani (2022). Agroforestry for Sustainable Cereal Based Cropping Systems in Indo-Gangetic Plain Region. *Agroforestry for Sustainable Cereal Based Cropping Systems in Indo-Gangetic Plain Region*. In: Kashyap *et al.* *New Horizons in Wheat and Barley Research*. Springer, Singapore.
- Taria, S., Kumar, M., Alam, B., Kumar, S., Kumar, S., Roy, S and Rane, J. 2022. Abiotic stress and plant response: Adaptive mechanisms of plants against multiple stresses. In: Santoyo, G., Kumar, A., Aamir, M and Uthandi, S (Eds.), *Mitigation of Plant Abiotic Stress by Microorganisms: Applicability and future directions*. Academic Press, 1-17.
- Arunachalam, A., Atul, Handa, A.K., Dwivedi, R.P., Sinha, R.B., Rath, B., Yadav, A., Singh, P. and Suresh Ramanan S. (2022). *Agroforestry Extension Framework*. Strategy Paper (#CAFRI/2022/1), ICAR-Central Agroforestry Research Institute, Jhansi, Uttar Pradesh; 24 p.

### **Popular Article**

- Debnath, S. (2022). The critical role of potassium in response to biotic stress in crops. *Agrobios Newsletter XX* (10): 15-17.
- Debnath, S. (2022). How do soil-microbe-plant-water and environment interact? *Agrobios Newsletter XX* (11): 13-15.
- Debnath, S. (2022). Chlorine: a neglected essential trace-element and its potential role in plants. *Agrobios Newsletter XX* (12): 30-32.

- Kumar S., Ram A., Arunachalam A., Yadav A and Taria S. 2022. *Melia dubia* ped ke labh anek. *Phal Phool*: 12-13.
- Kumar, S., Yadav, A and Arunachalam, A. 2022. *Melia dubia*: An ideal tree for commercial agroforestry. *Indian Farming* 72(3):33-34.
- Machiwal, D., Kumar, S., Kumar, S. 2022. Cereal-legume intercropping for managing erosion in arid soil. *Indian Farming* 72(4):111-115.
- Kumar, S., Yadav, A., Taria, S., Alam, B., Singh, P., Dwivedi, RP and Arunachalam, A. 2022. Khadya evam jalvayu suraksha me krishivaniki ki bhumika. *Bhadrika Punj* 1: 12-15.

## Awards / Recognition

- A team from the ICAR-CAFRI and AICRP on Agroforestry center at CSSHAU, Hisar participated in the blog competition held during the XV WORLD FORESTRY CONGRESS held in Seoul, South Korea (2-6 May 2022). The blog titled 'Agroforestry: Can small farm holdings lead a path towards carbon neutrality?' was awarded as one of the top 10 best blogs of the event by Dr. Chhavi Sirohi, Mr. Suresh Ramanan S., Dr. A.K. Handa, and Dr. A. Arunachalam.



- ICAR-CAFRI Team bagged the Dr. S. Chinnamani Award for Excellence in Agroforestry Extension 2021 by the Indian Society of Agroforestry based on teamwork for developing extension mechanism for agroforestry during Award Function of the Society on 18 June 2022. ICAR-CAFRI Team: Dr. A. K. Handa, Dr. R. P. Dwivedi, Dr. A. Arunachalam, Dr. Ashok Yadav, Dr. Priyanka Singh, Mr. Suresh Ramanan, Prof Dr. Atul, Dr. V. V. Sadamate and Dr. B. Lakshmi.
- A team from ICAR-CAFRI, IGFRI, and Upman Mahila Sansthan was conferred with the Dr. Ramesh Singh Team Award for Excellence in Natural Resource Management 2020-21 on 18<sup>th</sup> June 2022 Team: Dr. Inder Dev, Dr. Asha Ram, Dr. Naresh Kumar, Dr. A. Arunachalam, Dr. Purshotam Sharma, and Dr. Mamta Jain.



- A team of ICAR-CAFRI received the 1<sup>st</sup> Prize in a poster presentation on the topic entitled “Impact of Strawberry Cultivation on the Socio-Economic Status of Farmers: A Case Study of Babina Block of Jhansi district in Uttar Pradesh (Author’s: Sandeep Garg, Ashok Yadav, Satyam Bansal, Sushil Kumar, A. Arunachalam, K. Rajarajan and Rajendra Prasad)

### Employee of the Month of June, 2022

The Institute began to celebrate the outstanding work done by an employee for the Institute growth and development in all its forms and formats w.e.f. June 2022.

- Shri Rajeev Tiwari and Dr. C.K. Bajpai were declared best employees of the Month of June, 2022

### Personnel

#### Promotion

Dr. K Rajarajan promoted as Senior Scientist (Genetics & Plant Breeding)

#### New personnel

Dr. Pradyuman Singh, Senior Technical Officer (T-6) joined on 13-06-2022

#### Retirement




Sh. Sunil Kumar, Chief Technical officer on 28.02.2022.

Dr. Rajeev Tiwari, Chief Technical Officer on 30.06.2022

Dr. C. K. Bajpai, Chief Technical Officer on 30.06.2022



Dr. Pradyuman Singh

		
Sh. Sunil Kumar	Shri Rajeev Tiwari	Dr. C. K. Bajpai



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